# 后端测试文档

2020 年 05 月 07 日

**后端 API 测试——221701412 陈浩男、221701429 黄晓东、221701432 郑斯彬**

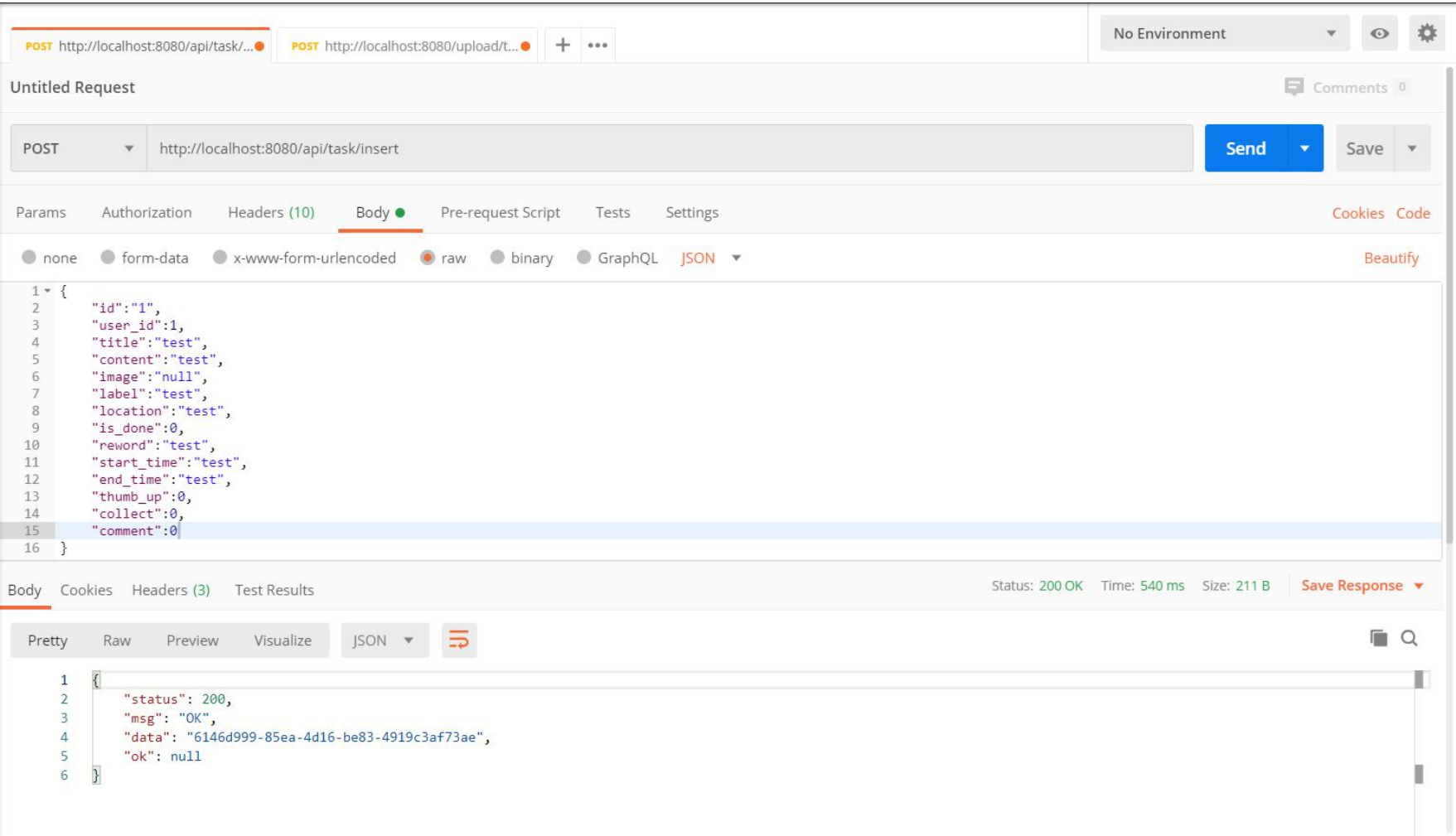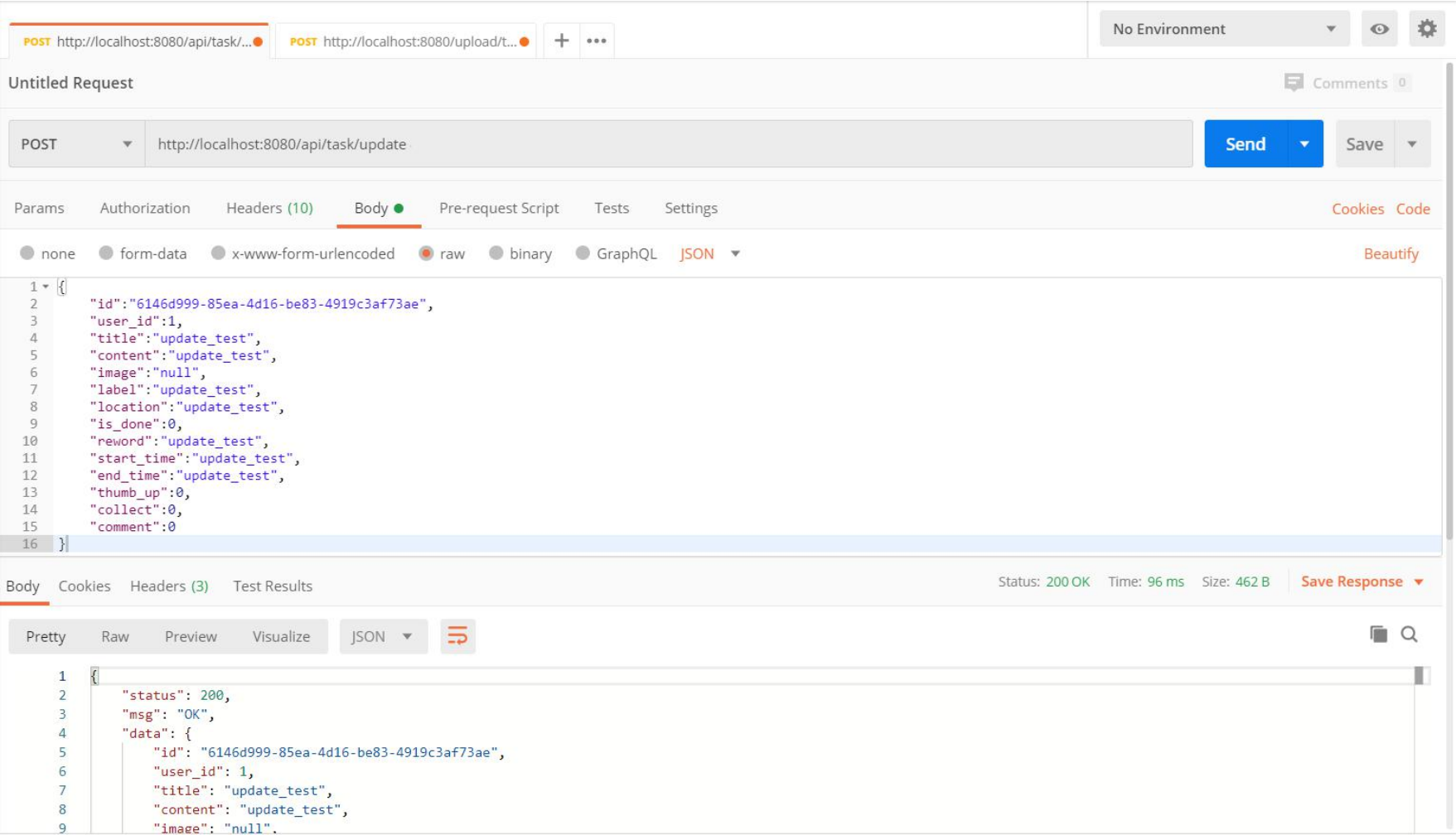**一、任务模块、评论模块测试——221701412 陈浩男**

**1. 任务模块**

任务插入



任务更新



任务删除

POST http://localhost:8080/api/task/... ●    POST http://localhost:8080/upload/t... ●   +   •••

No Environment ▾ 👁 ⚙

Untitled Request      💬 Comments 0

POST ▾   http://localhost:8080/api/task/delete?id=1    Send ▾   Save ▾

Params ●   Authorization   Headers (10)   Body ●   Pre-request Script   Tests   Settings     Cookies   Code

Query Params

| | KEY | VALUE | DESCRIPTION | ••• Bulk Edit |
|---|---|---|---|---|
| ☑ | id | 1 | | |
| | Key | Value | Description | |

Body   Cookies   Headers (3)   Test Results     Status: 200 OK   Time: 59 ms   Size: 182 B   Save Response ▾

Pretty   Raw   Preview   Visualize    JSON ▾   ⇥      ▣ 🔍

```
1  {
2      "status": 200,
3      "msg": "succeed",
4      "data": null,
5      "ok": null
6  }
```

任务更新解决状态

POST http://localhost:8080/api/task/... ●    POST http://localhost:8080/upload/t... ●   +   •••

No Environment ▾ 👁 ⚙

Untitled Request      💬 Comments 0

POST ▾   http://localhost:8080/api/task/update/is_done?id=6146d999-85ea-4d16-be83-4919c3af73ae&is_done=1    Send ▾   Save ▾

Params ●   Authorization   Headers (10)   Body ●   Pre-request Script   Tests   Settings     Cookies   Code

Query Params

| | KEY | VALUE | DESCRIPTION | ••• Bulk Edit |
|---|---|---|---|---|
| ☑ | id | 6146d999-85ea-4d16-be83-4919c3af73ae | | |
| ☑ | is_done | 1 | | |
| | Key | Value | Description | |

Body   Cookies   Headers (3)   Test Results     Status: 200 OK   Time: 674 ms   Size: 182 B   Save Response ▾

Pretty   Raw   Preview   Visualize    JSON ▾   ⇥      ▣ 🔍

```
1  {
2      "status": 200,
3      "msg": "succeed",
4      "data": null,
5      "ok": null
6  }
```
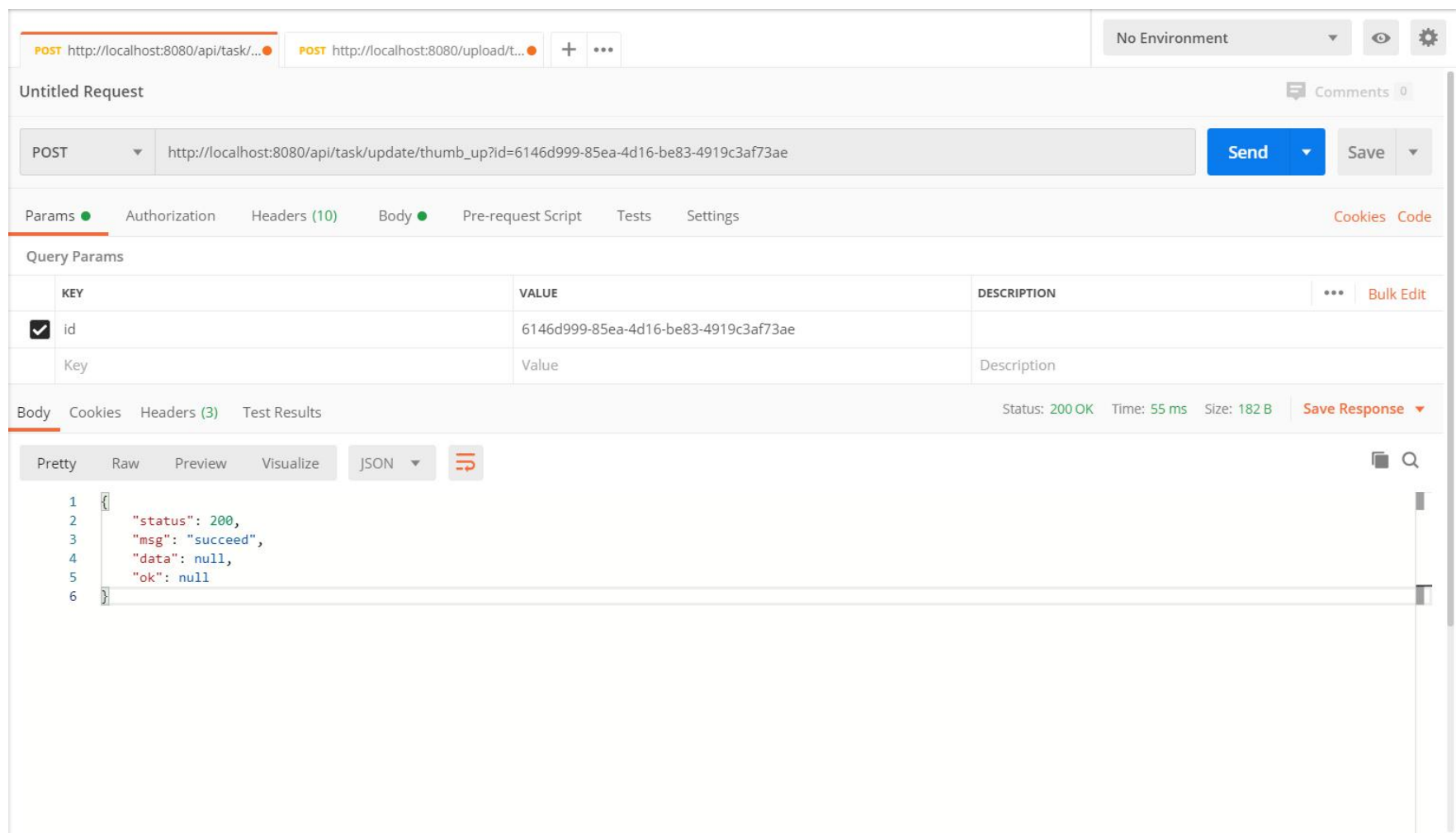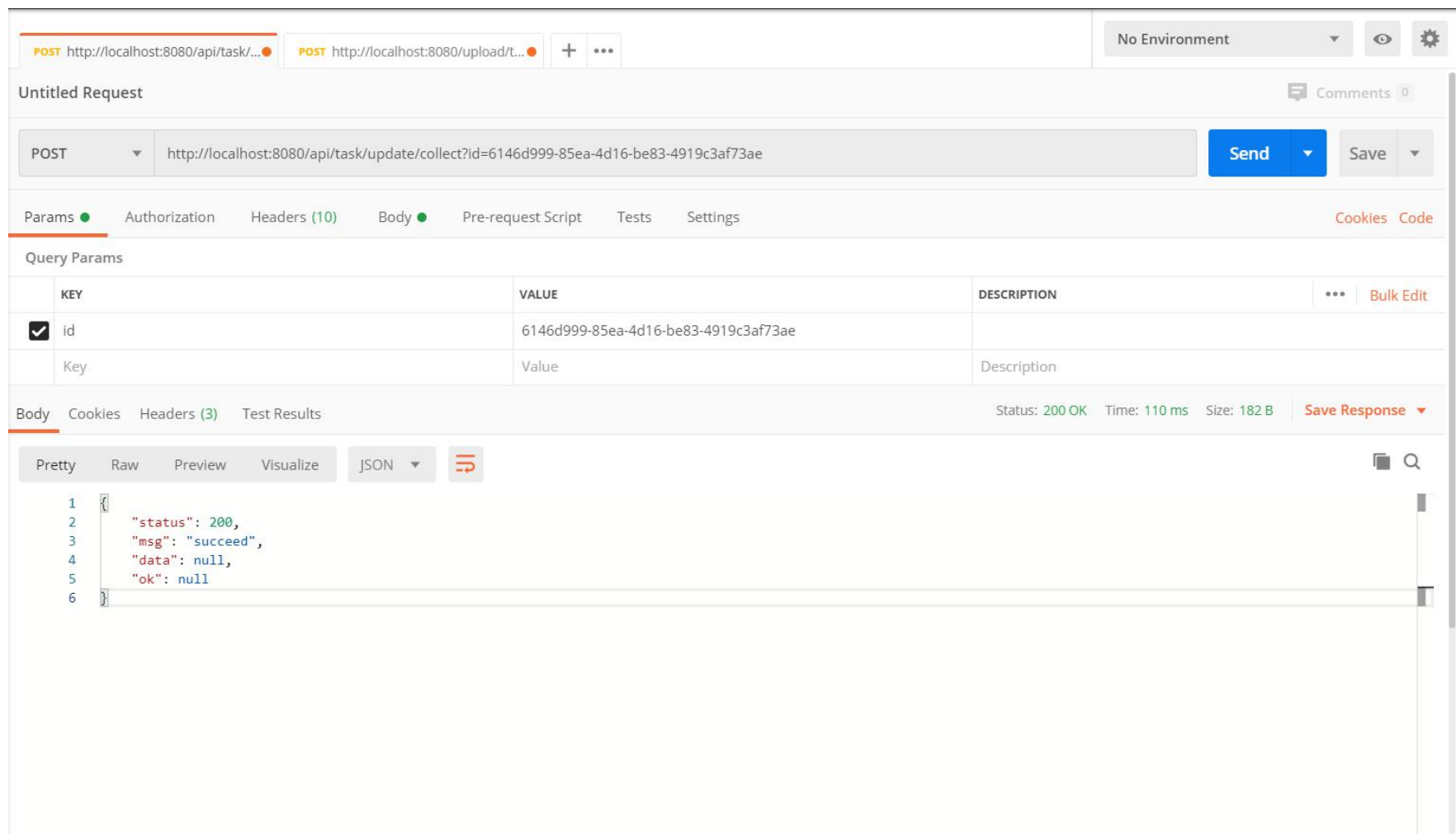
任务点赞+1

任务收藏+1



任务评论+1

POST http://localhost:8080/api/task/... ●    POST http://localhost:8080/upload/t... ●   +   •••

No Environment ▼   ⊙   ⚙

Untitled Request     💬 Comments 0

POST  ▼   http://localhost:8080/api/task/update/comment?id=6146d999-85ea-4d16-be83-4919c3af73ae    **Send** ▼   Save ▼

Params ●   Authorization   Headers (10)   Body ●   Pre-request Script   Tests   Settings      Cookies   Code

Query Params

| | KEY | VALUE | DESCRIPTION | ••• | Bulk Edit |
|---|---|---|---|---|---|
| ☑ | id | 6146d999-85ea-4d16-be83-4919c3af73ae | | | |
| | Key | Value | Description | | |

Body   Cookies   Headers (3)   Test Results      Status: 200 OK   Time: 49 ms   Size: 182 B    Save Response ▼

Pretty   Raw   Preview   Visualize   JSON ▼   ⇥

```
1  {
2      "status": 200,
3      "msg": "succeed",
4      "data": null,
5      "ok": null
6  }
```

查询全部任务

POST http://localhost:8080/api/task/... ●   POST http://localhost:8080/upload/t... ●   GET http://localhost:8080/api/task/q... ●   +   •••

No Environment ▼   ⊙   ⚙

Untitled Request     💬 Comments 0

GET  ▼   http://localhost:8080/api/task/query/all    **Send** ▼   Save ▼

Params   Authorization   Headers (7)   Body   Pre-request Script   Tests   Settings      Cookies   Code

Query Params

| | KEY | VALUE | DESCRIPTION | ••• | Bulk Edit |
|---|---|---|---|---|---|
| | Key | Value | Description | | |

Body   Cookies   Headers (3)   Test Results      Status: 200 OK   Time: 55 ms   Size: 965 B    Save Response ▼

Pretty   Raw   Preview   Visualize   JSON ▼   ⇥

```
1  {
2      "status": 200,
3      "msg": "succeed",
4      "data": [
5          {
6              "id": "04cc5c44-2c3e-488b-9947-1b1db08e81c1",
7              "user_id": 1,
8              "title": "test2",
9              "content": "test2",
10             "image": "null",
11             "label": "test2",
12             "location": "test2",
13             "is_done": 0,
14             "reword": "test2",
15             "start_time": "test2",
16             "end_time": "test2",
17             "thumb_up": 0,
18             "collect": 0,
19             "comment": 0
20         },
```

**Id 查询任务**

No Environment ▼   ◉   ⚙

**Untitled Request**        💬 Comments 0

GET ▼   http://localhost:8080/api/query/task/id/04cc5c44-2c3e-488b-9947-1b1db08e81c1    **Send** ▼   Save ▼

Params   Authorization   Headers (7)   Body   Pre-request Script   Tests   Settings     Cookies   Code

**Query Params**

| KEY | VALUE | DESCRIPTION | ··· Bulk Edit |
|---|---|---|---|
| Key | Value | Description | |

Body   Cookies   Headers (3)   Test Results     Status: 200 OK   Time: 19 ms   Size: 425 B   Save Response ▼

Pretty   Raw   Preview   Visualize   JSON ▼   ⤵     ▣ Q

```
1  {
2      "status": 200,
3      "msg": "succeed",
4      "data": {
5          "id": "04cc5c44-2c3e-488b-9947-1b1db08e81c1",
6          "user_id": 1,
7          "title": "test2",
8          "content": "test2",
9          "image": "null",
10         "label": "test2",
11         "location": "test2",
12         "is_done": 0,
13         "reword": "test2",
14         "start_time": "test2",
15         "end_time": "test2",
16         "thumb_up": 0,
17         "collect": 0,
18         "comment": 0
19     },
20     "ok": null
```

**任务 user_id 查询**

No Environment ▼   ◉   ⚙

**Untitled Request**        💬 Comments 0

GET ▼   http://localhost:8080/api/task/query/user_id/1    **Send** ▼   Save ▼

Params   Authorization   Headers (7)   Body   Pre-request Script   Tests   Settings     Cookies   Code

**Query Params**

| KEY | VALUE | DESCRIPTION | ··· Bulk Edit |
|---|---|---|---|
| Key | Value | Description | |

Body   Cookies   Headers (3)   Test Results     Status: 200 OK   Time: 606 ms   Size: 965 B   Save Response ▼

Pretty   Raw   Preview   Visualize   JSON ▼   ⤵     ▣ Q

```
1  {
2      "status": 200,
3      "msg": "succeed",
4      "data": [
5          {
6              "id": "04cc5c44-2c3e-488b-9947-1b1db08e81c1",
7              "user_id": 1,
8              "title": "test2",
9              "content": "test2",
10             "image": "null",
11             "label": "test2",
12             "location": "test2",
13             "is_done": 0,
14             "reword": "test2",
15             "start_time": "test2",
16             "end_time": "test2",
17             "thumb_up": 0,
18             "collect": 0,
19             "comment": 0
20         },
```

**任务模糊查询**

**Untitled Request**          💬 Comments 0

GET  ▾   http://localhost:8080/api/task/query/like/title/1     **Send** ▾   Save ▾

Params   Authorization   Headers (7)   Body   Pre-request Script   Tests   Settings      Cookies   Code

**Query Params**

| KEY | VALUE | DESCRIPTION | ••• Bulk Edit |
|-----|-------|-------------|---------------|
| Key | Value | Description | |

Body   Cookies   Headers (3)   Test Results      Status: 200 OK   Time: 19 ms   Size: 427 B   Save Response ▾

Pretty   Raw   Preview   Visualize   JSON ▾      📋 🔍

```json
1  {
2      "status": 200,
3      "msg": "succeed",
4      "data": [
5          {
6              "id": "10c6512b-6681-4b7a-a038-bb8367ea80f4",
7              "user_id": 1,
8              "title": "test1",
9              "content": "test1",
10             "image": "null",
11             "label": "test1",
12             "location": "test1",
13             "is_done": 0,
14             "reword": "test1",
15             "start_time": "test1",
16             "end_time": "test1",
17             "thumb_up": 0,
18             "collect": 0,
19             "comment": 0
20         }
```

**Untitled Request**          💬 Comments 0

GET  ▾   http://localhost:8080/api/task/query/like/content/1     **Send** ▾   Save ▾

Params   Authorization   Headers (7)   Body   Pre-request Script   Tests   Settings      Cookies   Code

**Query Params**

| KEY | VALUE | DESCRIPTION | ••• Bulk Edit |
|-----|-------|-------------|---------------|
| Key | Value | Description | |

Body   Cookies   Headers (3)   Test Results      Status: 200 OK   Time: 17 ms   Size: 427 B   Save Response ▾

Pretty   Raw   Preview   Visualize   JSON ▾      📋 🔍

```json
1  {
2      "status": 200,
3      "msg": "succeed",
4      "data": [
5          {
6              "id": "10c6512b-6681-4b7a-a038-bb8367ea80f4",
7              "user_id": 1,
8              "title": "test1",
9              "content": "test1",
10             "image": "null",
11             "label": "test1",
12             "location": "test1",
13             "is_done": 0,
14             "reword": "test1",
15             "start_time": "test1",
16             "end_time": "test1",
17             "thumb_up": 0,
18             "collect": 0,
19             "comment": 0
20         }
```

## 2. 评论模块

### 评论插入



### 评论删除

评论更新内容



评论点赞+1

Untitled Request       Comments 0

POST     http://localhost:8080/api/task/comment/update/thumb_up?id=1     **Send**    Save

Params ●   Authorization   Headers (9)   Body ●   Pre-request Script   Tests   Settings      Cookies   Code

Query Params

| | KEY | VALUE | DESCRIPTION | ··· Bulk Edit |
|---|-----|-------|-------------|---------------|
| ☑ | id | 1 | | |
| | Key | Value | Description | |

Body   Cookies   Headers (3)   Test Results     Status: 200 OK   Time: 82 ms   Size: 182 B    Save Response ▼

Pretty   Raw   Preview   Visualize    JSON ▼

```
1  {
2      "status": 200,
3      "msg": "succeed",
4      "data": null,
5      "ok": null
6  }
```

评论子评论+1

Untitled Request       Comments 0

POST     http://localhost:8080/api/task/comment/update/comment?id=1     **Send**    Save

Params ●   Authorization   Headers (9)   Body ●   Pre-request Script   Tests   Settings      Cookies   Code

Query Params

| | KEY | VALUE | DESCRIPTION | ··· Bulk Edit |
|---|-----|-------|-------------|---------------|
| ☑ | id | 1 | | |
| | Key | Value | Description | |

Body   Cookies   Headers (3)   Test Results     Status: 200 OK   Time: 82 ms   Size: 182 B    Save Response ▼

Pretty   Raw   Preview   Visualize    JSON ▼

```
1  {
2      "status": 200,
3      "msg": "succeed",
4      "data": null,
5      "ok": null
6  }
```

查询全部评论

**Id 查询评论**



**Table_id 查询评论**

## 二、用户、管理员测试——221701429 黄晓东

### 1. 用户模块

用户注册



用户登录

Untitled Request                                                              Comments 0

POST    ▼    localhost:8080/api/user/login?accountNumber=221701429&password=221701429        Send ▼    Save ▼

Params ●    Authorization    Headers (9)    Body ●    Pre-request Script    Tests    Settings                     Cookies  Code

Query Params

KEY                                      VALUE                           DESCRIPTION                    •••  Bulk Edit

☑  accountNumber                         221701429
☑  password                              221701429
   Key                                   Value                           Description

Body  Cookies  Headers (3)  Test Results              Status: 200 OK   Time: 42 ms   Size: 182 B   Save Response ▼

Pretty    Raw    Preview    Visualize    JSON ▼                                              Q

1  {
2      "status": 200,
3      "msg": "succeed",
4      "data": null,
5      "ok": null
6  }

用户找回密码

Untitled Request                                                              Comments 0

POST    ▼    localhost:8080/api/user/find/password?accountNumber=221701429&newPassword=221701429        Send ▼    Save ▼

Params ●    Authorization    Headers (9)    Body ●    Pre-request Script    Tests    Settings                     Cookies  Code

Query Params

KEY                                      VALUE                           DESCRIPTION                    •••  Bulk Edit

☑  accountNumber                         221701429
☑  newPassword                           221701429
   Key                                   Value                           Description

Body  Cookies  Headers (3)  Test Results              Status: 200 OK   Time: 17 ms   Size: 182 B   Save Response ▼

Pretty    Raw    Preview    Visualize    JSON ▼                                              Q

1  {
2      "status": 200,
3      "msg": "succeed",
4      "data": null,
5      "ok": null
6  }

用户修改密码

POST ▼ localhost:8080/api/user/update/password?accountNumber=221701429&password=221701429&newPassword=123456

Send ▼    Save ▼

Params ● | Authorization | Headers (9) | Body ● | Pre-request Script | Tests | Settings

Cookies  Code

Query Params

| | KEY | VALUE | DESCRIPTION | ··· Bulk Edit |
|---|---|---|---|---|
| ✓ | accountNumber | 221701429 | | |
| ✓ | password | 221701429 | | |
| ✓ | newPassword | 123456 | | |
| | Key | Value | Description | |

Body  Cookies  Headers (3)  Test Results

Status: 200 OK  Time: 375 ms  Size: 182 B    Save Response ▼

Pretty  Raw  Preview  Visualize  JSON ▼

```
1  {
2      "status": 200,
3      "msg": "succeed",
4      "data": null,
5      "ok": null
6  }
```

删除用户

POST ▼ localhost:8080/api/user/delete?accountNumber=221701429

Send ▼    Save ▼

Params ● | Authorization | Headers (9) | Body ● | Pre-request Script | Tests | Settings

Cookies  Code

Query Params

| | KEY | VALUE | DESCRIPTION | ··· Bulk Edit |
|---|---|---|---|---|
| ✓ | accountNumber | 221701429 | | |
| | Key | Value | Description | |

Body  Cookies  Headers (3)  Test Results

Status: 200 OK  Time: 403 ms  Size: 182 B    Save Response ▼

Pretty  Raw  Preview  Visualize  JSON ▼

```
1  {
2      "status": 200,
3      "msg": "succeed",
4      "data": null,
5      "ok": null
6  }
```

更新用户信息

查询全部用户



账号查询用户

```
{
    "status": 200,
    "msg": "succeed",
    "data": {
        "id": 16,
        "accountNumber": "221701429",
        "password": "362CE29FF3A542295981D93DF7772633",
        "sex": 0,
        "name": "黄晓东",
        "phoneNumber": "13225940608",
        "head": "",
        "address": "福州大学生活三区",
        "info": ""
    },
    "ok": null
}
```

## 2. 管理员模块

### 管理员注册

```
{
    "accountNumber":"221701429",
    "password":"221701429",
    "authority":1
}
```

```
{
    "status": 200,
    "msg": "succeed",
    "data": null,
    "ok": null
}
```

### 管理员登录

管理员找回密码



管理员修改密码

更新管理员信息



删除管理员

```json
{
    "status": 200,
    "msg": "succeed",
    "data": null,
    "ok": null
}
```

查询全部管理员

```json
{
    "status": 200,
    "msg": "succeed",
    "data": [
        {
            "id": 2,
            "accountNumber": "221701417",
            "password": "ADF5C7B82DAA12E8",
            "authority": 2
        },
        {
            "id": 4,
            "accountNumber": "221701412",
            "password": "14FFBB2487029247",
            "authority": 2
        },
        {
            "id": 5,
            "accountNumber": "221701420",
            "password": "362CE29FF3A5422906220F07E344C97E",
```

账号查询管理员

### 三、失物招领、物品租赁模块测试——2217014132 郑斯彬

#### 1. 失物招领模块

失物插入



失物删除

POST    localhost:8080/api/lost_and_found/delete    Send    Save

Params    Auth    Headers (9)    Body ●    Pre-req.    Tests    Settings    Cookies    Code

raw    JSON    Beautify

1 ▾ {
2        "id":"0c86bb46-e6d7-4132-b097-9e9bea80eaff"
3    }
4

Status: 200 OK    Time: 992 ms    Size: 182 B    Save Response ▾

Body    Cookies    Headers (3)    Test Results

Pretty    Raw    Preview    Visualize    JSON

1    {
2        "status": 200,
3        "msg": "succeed",
4        "data": null,
5        "ok": null
6    }

Bootcamp    Build    Browse

失物更新解决状态

GET    localhost:8080/api/lost_and_found/update/isDone?id=b4d112eb-2e98-493a-8efc-1e78e9c33310    Send    Save

Params ●    Auth    Headers (10)    Body ●    Pre-req.    Tests    Settings    Cookies    Code

Query Params

| | KEY | VALUE | DESCRIPTION | ••• | Bulk Edit |
|---|---|---|---|---|---|
| ☑ | id | b4d112eb-… | | | |
| | Key | Value | Description | | |

Status: 200 OK    Time: 54 ms    Size: 182 B    Save Response ▾

Body    Cookies    Headers (3)    Test Results

Pretty    Raw    Preview    Visualize    JSON

1    {
2        "status": 200,
3        "msg": "succeed",
4        "data": null,
5        "ok": null
6    }

**失物点赞+1**

GET localhost:8080/api/lost_and_found/update/thumbUp?id=b4d112eb-2e98-493a-8efc-1e78e9c33310 Send Save

Params ● Auth Headers (10) Body ● Pre-req. Tests Settings Cookies Code

Query Params

| | KEY | VALUE | DESCRIPTION | ••• | Bulk Edit |
|---|---|---|---|---|---|
| ☑ | id | b4d112eb-... | | | |
| | Key | Value | Description | | |

Status: 200 OK  Time: 37 ms  Size: 182 B                    Save Response ▾

Body  Cookies  Headers (3)  Test Results

Pretty  Raw  Preview  Visualize  JSON ▾

```
1  {
2      "status": 200,
3      "msg": "succeed",
4      "data": null,
5      "ok": null
6  }
```

失物收藏+1

GET localhost:8080/api/lost_and_found/update/collect?id=b4d112eb-2e98-493a-8efc-1e78e9c33310 Send Save

Params ● Auth Headers (10) Body ● Pre-req. Tests Settings Cookies Code

Query Params

| | KEY | VALUE | DESCRIPTION | ••• | Bulk Edit |
|---|---|---|---|---|---|
| ☑ | id | b4d112eb-... | | | |
| | Key | Value | Description | | |

Status: 200 OK  Time: 16 ms  Size: 182 B                    Save Response ▾

Body  Cookies  Headers (3)  Test Results

Pretty  Raw  Preview  Visualize  JSON ▾

```
1  {
2      "status": 200,
3      "msg": "succeed",
4      "data": null,
5      "ok": null
6  }
```

失物评论+1

GET localhost:8080/api/lost_and_found/update/comment?id=b4d112eb-2e98-493a-8efc-1e78e9c33310 Send Save

Params ● Auth Headers (10) Body ● Pre-req. Tests Settings Cookies Code

Query Params

| | KEY | VALUE | DESCRIPTION | ••• | Bulk Edit |
|---|---|---|---|---|---|
| ☑ | id | b4d112eb-... | | | |
| | Key | Value | Description | | |

Status: 200 OK  Time: 28 ms  Size: 182 B                    Save Response ▾

Body  Cookies  Headers (3)  Test Results

Pretty  Raw  Preview  Visualize  JSON ▾

```
1  {
2      "status": 200,
3      "msg": "succeed",
4      "data": null,
5      "ok": null
6  }
```

**查询全部失物**



GET  localhost:8080/api/lost_and_found/query/all  Send  Save

Params  Auth  Headers (10)  Body ●  Pre-req.  Tests  Settings  Cookies  Code

Query Params

| | KEY | VALUE | DESCRIPTION | ••• | Bulk Edit |
|---|---|---|---|---|---|
| | Key | Value | Description | | |

Status: 200 OK  Time: 70 ms  Size: 1.3 KB  Save Response ▾

Body  Cookies  Headers (3)  Test Results

Pretty  Raw  Preview  Visualize  JSON ▾

```
 1  {
 2      "status": 200,
 3      "msg": "succeed",
 4      "data": [
 5          {
 6              "id":
                  "2f50029a-8335-4a19-b971-f37c0aa07c3
                  4",
 7              "userId": 1,
 8              "title": "asd",
 9              "content": "asd",
10              "image": "asd",
11              "label": "asd",
12              "location": "asd",
13              "isDone": 0,
14              "time": "asd",
15              "isLost": 0,
16              "thumbUp": 0,
17              "collect": 0,
18              "comment": 0
19          },
20          {
21              "id":
                  "4ef06c26-3ab6-4b4c-91bc-f311295c603
```

Bootcamp  Build  Browse

**Id 查询失物**



GET  localhost:8080/api/lost_and_found/query/id?id=b4d112eb-2e98-493a-8efc-1e78e9c33310  Send  Save

Params ●  Auth  Headers (10)  Body ●  Pre-req.  Tests  Settings  Cookies  Code

Query Params

| | KEY | VALUE | DESCRIPTION | ••• | Bulk Edit |
|---|---|---|---|---|---|
| ☑ | id | b4d112eb-… | | | |
| | Key | Value | Description | | |

Status: 200 OK  Time: 51 ms  Size: 516 B  Save Response ▾

Body  Cookies  Headers (3)  Test Results

Pretty  Raw  Preview  Visualize  JSON ▾

```
 1  {
 2      "status": 200,
 3      "msg": "succeed",
 4      "data": {
 5          "id":
              "b4d112eb-2e98-493a-8efc-1e78e9c33310",
 6          "userId": 1,
 7          "title": "阿萨德浓氨水你都塞纳的离开",
 8          "content": "打算看你的克兰斯柯达纳克里斯你打开",
 9          "image": "...",
10          "label": "阿萨德马上贷",
11          "location": "阿萨德马克塑料袋",
12          "isDone": 1,
13          "time": "2020-05-03 23:59:14",
14          "isLost": 0,
15          "thumbUp": 1,
16          "collect": 1,
17          "comment": 1
18      },
19      "ok": null
20  }
```

**User_id 查询失物**

GET localhost:8080/api/lost_and_found/query/userId?userId=1    Send    Save

Params ● Auth Headers (10) Body ● Pre-req. Tests Settings    Cookies Code

Query Params

| | KEY | VALUE | DESCRIPTION | ••• | Bulk Edit |
|---|---|---|---|---|---|
| ☑ | userId | 1 ... | | | |
| | Key | Value | Description | | |

Status: 200 OK  Time: 69 ms  Size: 1.3 KB    Save Response

Body Cookies Headers (3) Test Results

Pretty Raw Preview Visualize JSON

```json
1  {
2      "status": 200,
3      "msg": "succeed",
4      "data": [
5          {
6              "id":
                   "2f50029a-8335-4a19-b971-f37c0aa07c
                   34",
7              "userId": 1,
8              "title": "asd",
9              "content": "asd",
10             "image": "asd",
11             "label": "asd",
12             "location": "asd",
13             "isDone": 0,
14             "time": "asd",
15             "isLost": 0,
16             "thumbUp": 0,
17             "collect": 0,
18             "comment": 0
19         },
20         {
21             "id":
```

模糊查询失物

GET localhost:8080/api/lost_and_found/query/like/title?text=s    Send    Save

Params ● Auth Headers (10) Body ● Pre-req. Tests Settings    Cookies Code

Query Params

| | KEY | VALUE | DESCRIPTION | ••• | Bulk Edit |
|---|---|---|---|---|---|
| ☑ | text | s ... | | | |
| | Key | Value | Description | | |

Status: 200 OK  Time: 45 ms  Size: 997 B    Save Response

Body Cookies Headers (3) Test Results

Pretty Raw Preview Visualize JSON

```json
1  {
2      "status": 200,
3      "msg": "succeed",
4      "data": [
5          {
6              "id":
                   "2f50029a-8335-4a19-b971-f37c0aa07c
                   34",
7              "userId": 1,
8              "title": "asd",
9              "content": "asd",
10             "image": "asd",
11             "label": "asd",
12             "location": "asd",
13             "isDone": 0,
14             "time": "asd",
15             "isLost": 0,
16             "thumbUp": 0,
17             "collect": 0,
18             "comment": 0
19         },
20         {
21             "id":
```

Bootcamp    Build    Browse

GET localhost:8080/api/lost_and_found/query/like/content?text=s

Params ● Auth Headers (10) Body ● Pre-req. Tests Settings Cookies Code

Query Params

| | KEY | VALUE | DESCRIPTION | ••• Bulk Edit |
|---|---|---|---|---|
| ☑ | text | s ... | | |
| | Key | Value | Description | |

Status: 200 OK Time: 36 ms Size: 587 B

Save Response ▾

Body Cookies Headers (3) Test Results

Pretty Raw Preview Visualize JSON ▾

```
1  {
2      "status": 200,
3      "msg": "succeed",
4      "data": [
5          {
6              "id":
                   "2f50029a-8335-4a19-b971-f37c0aa07c
                   34",
7              "userId": 1,
8              "title": "asd",
9              "content": "asd",
10             "image": "asd",
11             "label": "asd",
12             "location": "asd",
13             "isDone": 0,
14             "time": "asd",
15             "isLost": 0,
16             "thumbUp": 0,
17             "collect": 0,
18             "comment": 0
19         },
20         {
21             "id":
```

Bootcamp Build Browse

GET localhost:8080/api/lost_and_found/query/like/label?text=a

Params ● Auth Headers (10) Body ● Pre-req. Tests Settings Cookies Code

Query Params

| | KEY | VALUE | DESCRIPTION | ••• Bulk Edit |
|---|---|---|---|---|
| ☑ | text | a ... | | |
| | Key | Value | Description | |

Status: 200 OK Time: 22 ms Size: 997 B

Save Response ▾

Body Cookies Headers (3) Test Results

Pretty Raw Preview Visualize JSON ▾

```
1  {
2      "status": 200,
3      "msg": "succeed",
4      "data": [
5          {
6              "id":
                   "2f50029a-8335-4a19-b971-f37c0aa07c
                   34",
7              "userId": 1,
8              "title": "asd",
9              "content": "asd",
10             "image": "asd",
11             "label": "asd",
12             "location": "asd",
13             "isDone": 0,
14             "time": "asd",
15             "isLost": 0,
16             "thumbUp": 0,
17             "collect": 0,
18             "comment": 0
19         },
20         {
21             "id":
```

Bootcamp Build Browse

## 2. 物品租赁模块

插入物品

**删除物品**



**更新物品解决状态**

| GET ▾ | localhost:8080/api/rental/update/isDone?id=5aa20998-5c3c-4318-baca-2fa8acbbf49b | Send ▾ | Save ▾ |

Params ● | Auth | Headers (10) | Body ● | Pre-req. | Tests | Settings | Cookies | Code

Query Params

| | KEY | VALUE | DESCRIPTION | ••• | Bulk Edit |
|---|---|---|---|---|---|
| ☑ | id | 5aa20998-... | | | |
| | Key | Value | Description | | |

Status: 200 OK   Time: 48 ms   Size: 182 B                    Save Response ▾

Body | Cookies | Headers (3) | Test Results

Pretty | Raw | Preview | Visualize | JSON ▾

```
1  {
2      "status": 200,
3      "msg": "succeed",
4      "data": null,
5      "ok": null
6  }
```

物品点赞+1

| GET ▾ | localhost:8080/api/rental/update/thumbUp?id=5aa20998-5c3c-4318-baca-2fa8acbbf49b | Send ▾ | Save ▾ |

Params ● | Auth | Headers (10) | Body ● | Pre-req. | Tests | Settings | Cookies | Code

Query Params

| | KEY | VALUE | DESCRIPTION | ••• | Bulk Edit |
|---|---|---|---|---|---|
| ☑ | id | 5aa20998-... | | | |
| | Key | Value | Description | | |

Status: 200 OK   Time: 28 ms   Size: 182 B                    Save Response ▾

Body | Cookies | Headers (3) | Test Results

Pretty | Raw | Preview | Visualize | JSON ▾

```
1  {
2      "status": 200,
3      "msg": "succeed",
4      "data": null,
5      "ok": null
6  }
```

物品收藏+1

| GET ▾ | localhost:8080/api/rental/update/collect?id=5aa20998-5c3c-4318-baca-2fa8acbbf49b | Send ▾ | Save ▾ |

Params ● | Auth | Headers (10) | Body ● | Pre-req. | Tests | Settings | Cookies | Code

Query Params

| | KEY | VALUE | DESCRIPTION | ••• | Bulk Edit |
|---|---|---|---|---|---|
| ☑ | id | 5aa20998-... | | | |
| | Key | Value | Description | | |

Status: 200 OK   Time: 16 ms   Size: 182 B                    Save Response ▾

Body | Cookies | Headers (3) | Test Results

Pretty | Raw | Preview | Visualize | JSON ▾

```
1  {
2      "status": 200,
3      "msg": "succeed",
4      "data": null,
5      "ok": null
6  }
```

物品评论+1

查询全部物品



**Id 查询物品**

| GET ▼ | localhost:8080/api/rental/query/id?id=5aa20998-5c3c-4318-baca-2fa8acbbf49b | | Send ▼ | Save ▼ |

Params ● | Auth | Headers (10) | Body ● | Pre-req. | Tests | Settings | Cookies | Code

Status: 200 OK | Time: 25 ms | Size: 458 B | Save Response ▼

Query Params

Body | Cookies | Headers (3) | Test Results

| | KEY | VALUE | DESCRIPTION | ••• | Bulk Edit |
|---|---|---|---|---|---|
| ☑ | id | 5aa20998-... | | | |
| | Key | Value | Description | | |

Pretty | Raw | Preview | Visualize | JSON ▼

```
1  {
2      "status": 200,
3      "msg": "succeed",
4      "data": {
5          "id":
              "5aa20998-5c3c-4318-baca-2fa8acbbf49b",
6          "userId": 1,
7          "title": "test2",
8          "content": "111",
9          "image": "asd",
10         "label": "asd",
11         "location": "asd",
12         "isDone": 1,
13         "unitPrice": "12.3",
14         "startTime": "2020-05-04 00:16:26",
15         "endTime": "2020-05-04 00:17:07",
16         "newDegree": 90,
17         "thumbUp": 1,
18         "collect": 1,
19         "comment": 1
20     },
21     "ok": null
22  }
```

**User_id 查询物品**

Untitled Request | Comments 0

| GET ▼ | localhost:8080/api/rental/query/userId?userId=1 | | Send ▼ | Save ▼ |

Params ● | Auth | Headers (10) | Body ● | Pre-req. | Tests | Settings | Cookies | Code

Status: 200 OK | Time: 24 ms | Size: 705 B | Save Response ▼

Query Params

Body | Cookies | Headers (3) | Test Results

| | KEY | VALUE | DESCRIPTION | ••• | Bulk Edit |
|---|---|---|---|---|---|
| ☑ | userId | 1 ... | | | |
| | Key | Value | Description | | |

Pretty | Raw | Preview | Visualize | JSON ▼

```
1  {
2      "status": 200,
3      "msg": "succeed",
4      "data": [
5          {
6              "id":
                  "5aa20998-5c3c-4318-baca-2fa8acbbf4
                  9b",
7              "userId": 1,
8              "title": "test2",
9              "content": "111",
10             "image": "asd",
11             "label": "asd",
12             "location": "asd",
13             "isDone": 1,
14             "unitPrice": "12.3",
15             "startTime": "2020-05-04 00:16:26",
16             "endTime": "2020-05-04 00:17:07",
17             "newDegree": 90,
18             "thumbUp": 1,
19             "collect": 1,
20             "comment": 1
21         },
```

Bootcamp | Build | Browse

**模糊查询物品**

GET ▼ localhost:8080/api/rental/query/like/title?text=t | Send ▼ | Save ▼

Params ● | Auth | Headers (10) | Body ● | Pre-req. | Tests | Settings | Cookies | Code

Query Params

| | KEY | VALUE | DESCRIPTION | ••• | Bulk Edit |
|---|---|---|---|---|---|
| ☑ | text | t ... | | | |
| | Key | Value | Description | | |

Status: 200 OK  Time: 21 ms  Size: 705 B   Save Response ▼

Body  Cookies  Headers (3)  Test Results

Pretty  Raw  Preview  Visualize  JSON ▼

```
1   {
2       "status": 200,
3       "msg": "succeed",
4       "data": [
5           {
6               "id":
                    "5aa20998-5c3c-4318-baca-2fa8acbbf4
                    9b",
7               "userId": 1,
8               "title": "test2",
9               "content": "111",
10              "image": "asd",
11              "label": "asd",
12              "location": "asd",
13              "isDone": 1,
14              "unitPrice": "12.3",
15              "startTime": "2020-05-04 00:16:26",
16              "endTime": "2020-05-04 00:17:07",
17              "newDegree": 90,
18              "thumbUp": 1,
19              "collect": 1,
20              "comment": 1
21          },
```

🎓 Bootcamp   Build   Browse

---

GET ▼ localhost:8080/api/rental/query/like/content?text=1 | Send ▼ | Save ▼

Params ● | Auth | Headers (10) | Body ● | Pre-req. | Tests | Settings | Cookies | Code

Query Params

| | KEY | VALUE | DESCRIPTION | ••• | Bulk Edit |
|---|---|---|---|---|---|
| ☑ | text | 1 ... | | | |
| | Key | Value | Description | | |

Status: 200 OK  Time: 28 ms  Size: 705 B   Save Response ▼

Body  Cookies  Headers (3)  Test Results

Pretty  Raw  Preview  Visualize  JSON ▼

```
1   {
2       "status": 200,
3       "msg": "succeed",
4       "data": [
5           {
6               "id":
                    "5aa20998-5c3c-4318-baca-2fa8acbbf4
                    9b",
7               "userId": 1,
8               "title": "test2",
9               "content": "111",
10              "image": "asd",
11              "label": "asd",
12              "location": "asd",
13              "isDone": 1,
14              "unitPrice": "12.3",
15              "startTime": "2020-05-04 00:16:26",
16              "endTime": "2020-05-04 00:17:07",
17              "newDegree": 90,
18              "thumbUp": 1,
19              "collect": 1,
20              "comment": 1
21          },
```

🎓 Bootcamp   Build   Browse

GET localhost:8080/api/rental/query/like/label?text=a

Params ● | Auth | Headers (10) | Body ● | Pre-req. | Tests | Settings | Cookies | Code

Query Params

| | KEY | VALUE | DESCRIPTION | ••• | Bulk Edit |
|---|---|---|---|---|---|
| ☑ | text | a ... | | | |
| | Key | Value | Description | | |

Status: 200 OK   Time: 19 ms   Size: 705 B

Body | Cookies | Headers (3) | Test Results

Pretty | Raw | Preview | Visualize | JSON ▼

```
1   {
2       "status": 200,
3       "msg": "succeed",
4       "data": [
5           {
6               "id":
                    "5aa20998-5c3c-4318-baca-2fa8acbbf4
                    9b",
7               "userId": 1,
8               "title": "test2",
9               "content": "111",
10              "image": "asd",
11              "label": "asd",
12              "location": "asd",
13              "isDone": 1,
14              "unitPrice": "12.3",
15              "startTime": "2020-05-04 00:16:26",
16              "endTime": "2020-05-04 00:17:07",
17              "newDegree": 90,
18              "thumbUp": 1,
19              "collect": 1,
20              "comment": 1
21          },
```

后端工具类单元测试——221701432 郑斯彬

1. 日期类工具测试

代码截图
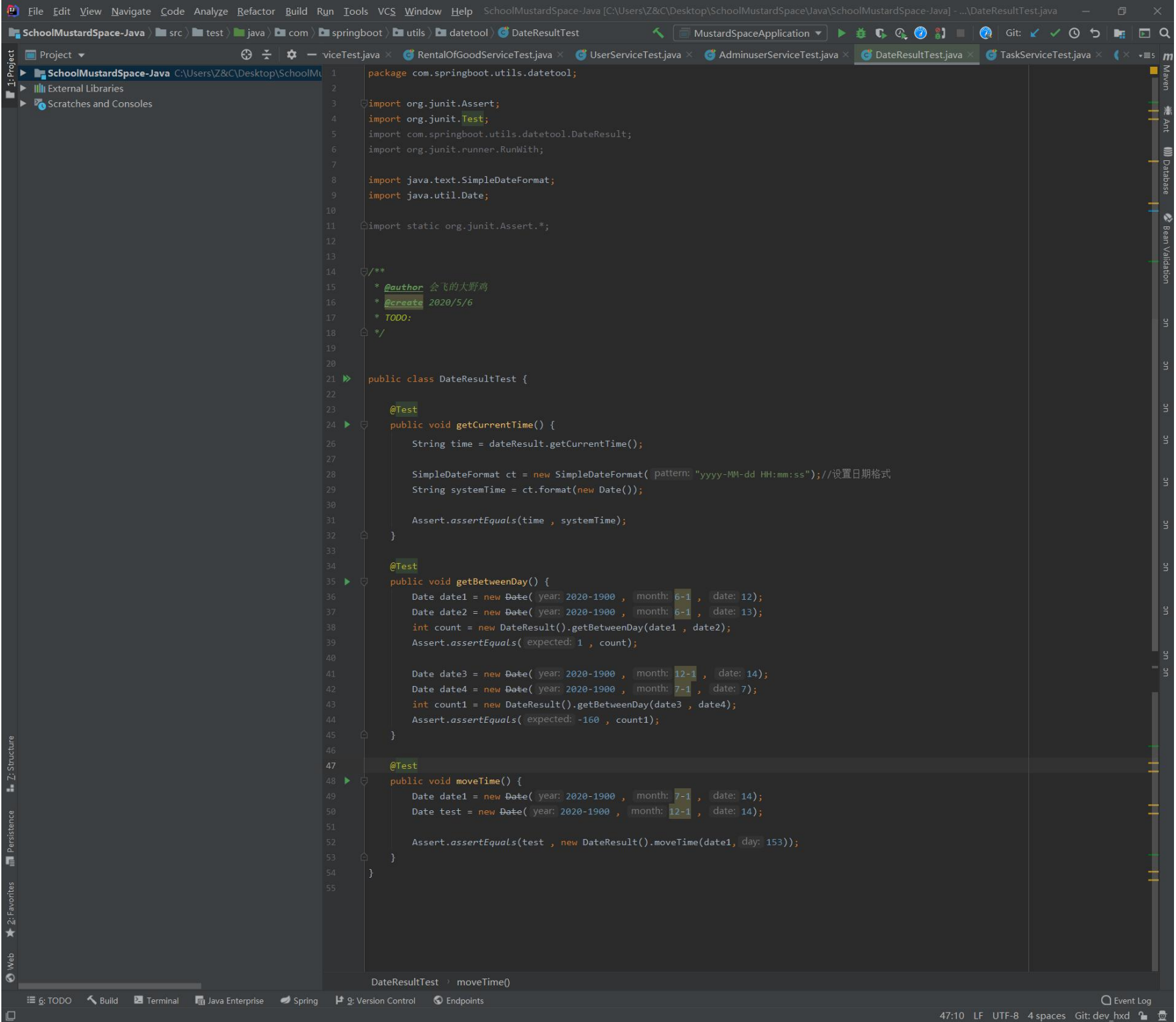
运行结果



**2. 密码加密工具测试**

代码截图

运行结果



**3. Url 转码工具测试**

代码截图

运行结果



**4. uuid 工具测试**

代码截图
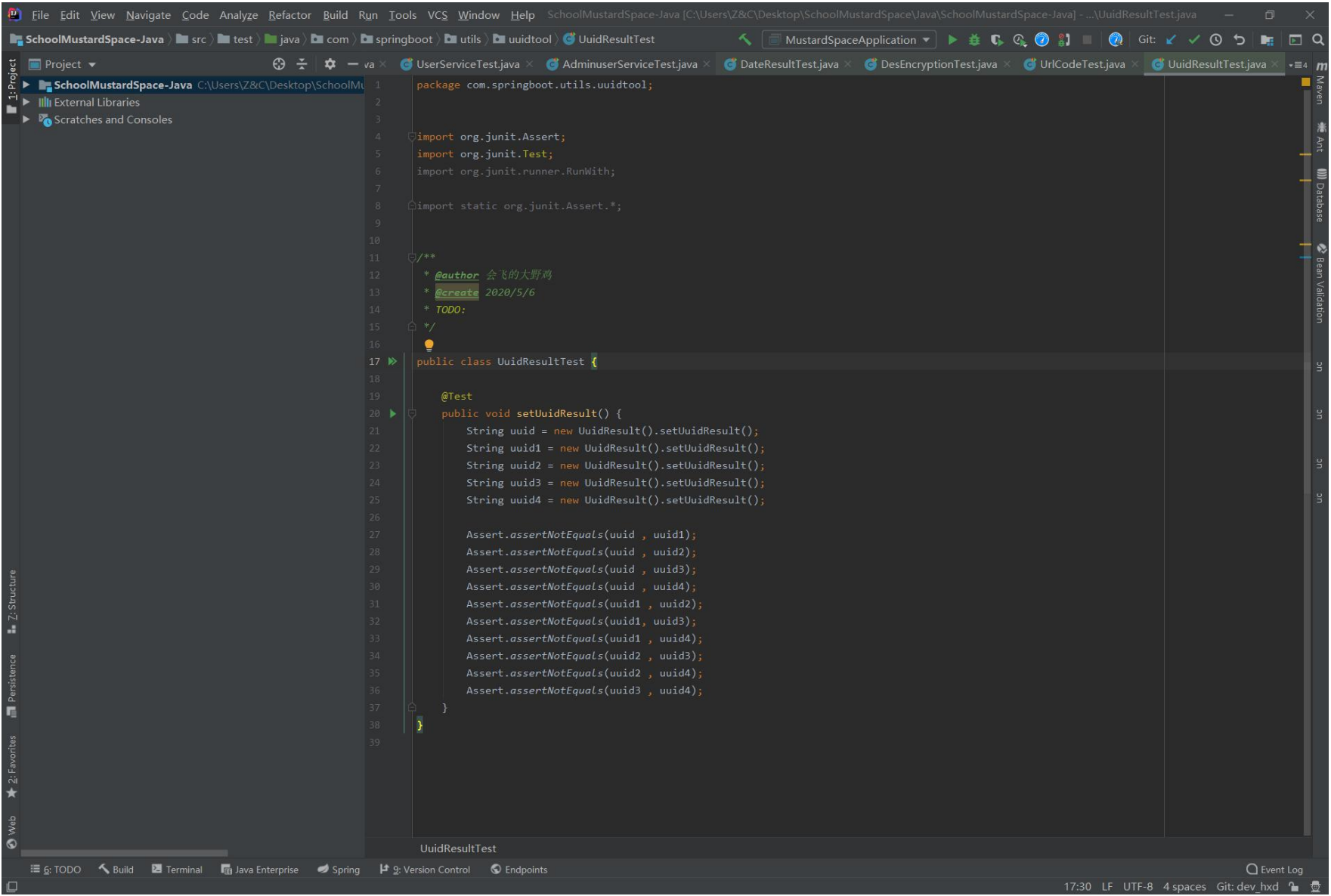
运行结果
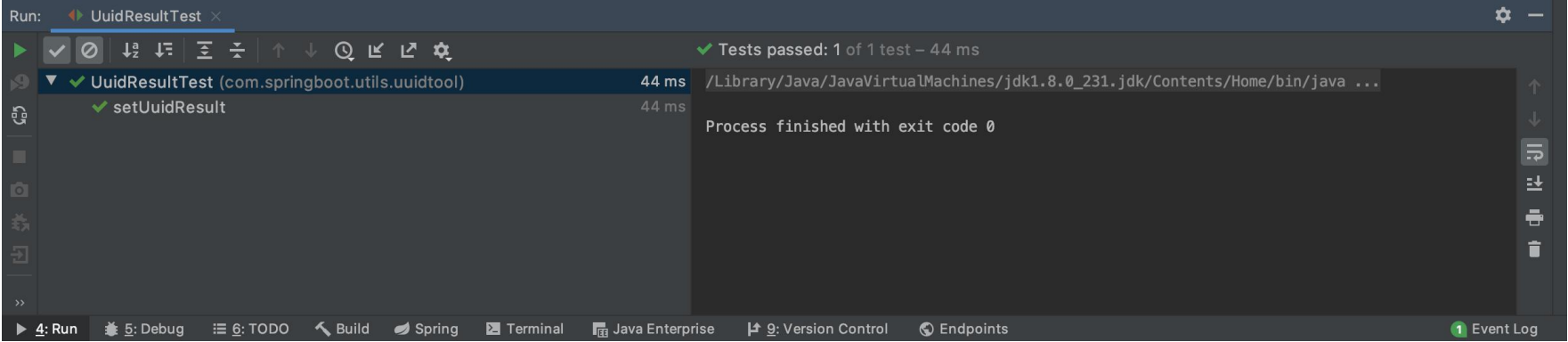


后端框架单元测试——221701412 陈浩男、221701432 郑斯彬

1. 管理员服务层测试

代码截图

```java
package com.test.servicetest;

import com.springboot.MustardSpaceApplication;
import com.springboot.domain.Adminuser;
import com.springboot.service.AdminuserService;
import com.springboot.utils.encryptiontool.DesEncryption;
import org.junit.Assert;
import org.junit.Test;
import org.junit.runner.RunWith;
import org.springframework.beans.factory.annotation.Autowired;
import org.springframework.boot.test.context.SpringBootTest;
import org.springframework.test.context.junit4.SpringRunner;

import static com.springboot.utils.encryptiontool.DesEncryption.byte2Hex;

/**
 * @author 会飞的大野鸡
 * @create 2020/5/7
 * TODO:
 */

@RunWith(SpringRunner.class)
@SpringBootTest(classes = {MustardSpaceApplication.class})
public class AdminuserServiceTest {

    @Autowired
    private AdminuserService adminuserService;


    /**
     * testLogin
     * TODO
     * @description testLogin
     * s, 'μ«~º "√¿¯ 221701412 √‹¬Î 666666
     * @author 221701412_theTuring
     * @version v 1.0.0
     * @since 2020.5.6
     */
    @Test
    public void testLogin(){

        String account = "221701412";
        String password = "test666";

        // º"√‹
        byte[] secretArr = DesEncryption.encryptMode(password.getBytes());
        String str = byte2Hex(secretArr);

        String result = adminuserService.login(account,str);
        String expected = "succeed";

        Assert.assertEquals(expected,result);
    }

    /**
     * testRegister
     * TODO
     * @description testRegister
     * @author 221701412_theTuring
     * @version v 1.0.0
     * @since 2020.5.6
     */
    @Test
    public void testRegister(){

        Adminuser adminuser = new Adminuser();

        adminuser.setAccountNumber("test");
        adminuser.setPassword("test");
        adminuser.setAuthority(0);

        String result = adminuserService.register(adminuser);
        String expected = "succeed";

        Assert.assertEquals(expected,result);
    }

    /**
     * testFindPassword
     * TODO
     * @description testFindPassword
     * @author 221701412_theTuring
     * @version v 1.0.0
     * @since 2020.5.6
     */
    @Test
    public void testFindPassword(){


        String account = "221701412";
        String password = "test666";

        // º"√‹
        byte[] secretArr = DesEncryption.encryptMode(password.getBytes());
        String str = byte2Hex(secretArr);

        String result = adminuserService.findPassword(account,str);
        String expected = "succeed";

        Assert.assertEquals(expected,result);
    }

    /**
     * testChangePassword
     * TODO
     * @description testChangePassword
     * @author 221701412_theTuring
     * @version v 1.0.0
     * @since 2020.5.6
     */
    @Test
    public void testChangePassword(){


        String account = "221701412";
        String password = "test666";
        String newPassword = "test666";

        // º"√‹
        byte[] secretArr = DesEncryption.encryptMode(password.getBytes());
        String str = byte2Hex(secretArr);

        String result = adminuserService.changePassword(account,str,newPassword);
        String expected = "succeed";
```
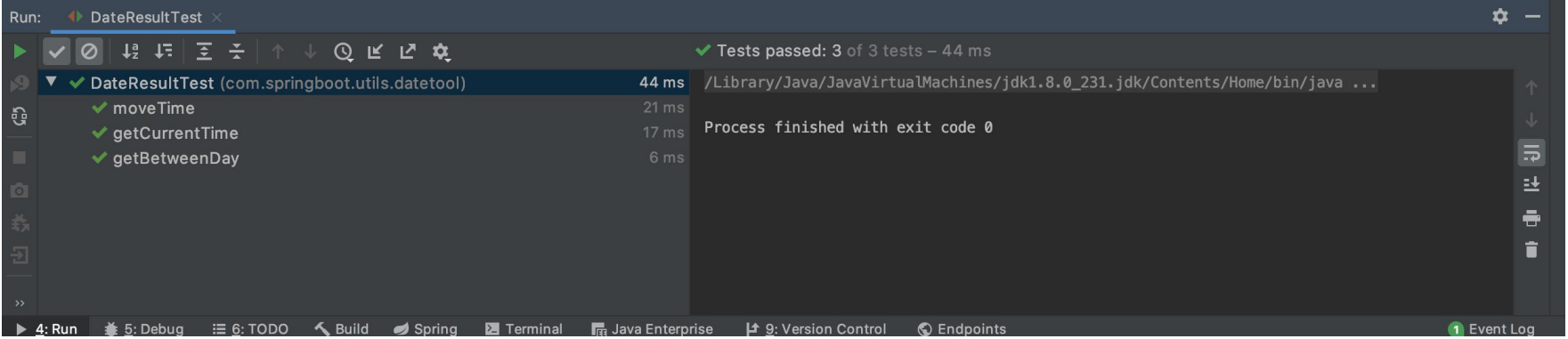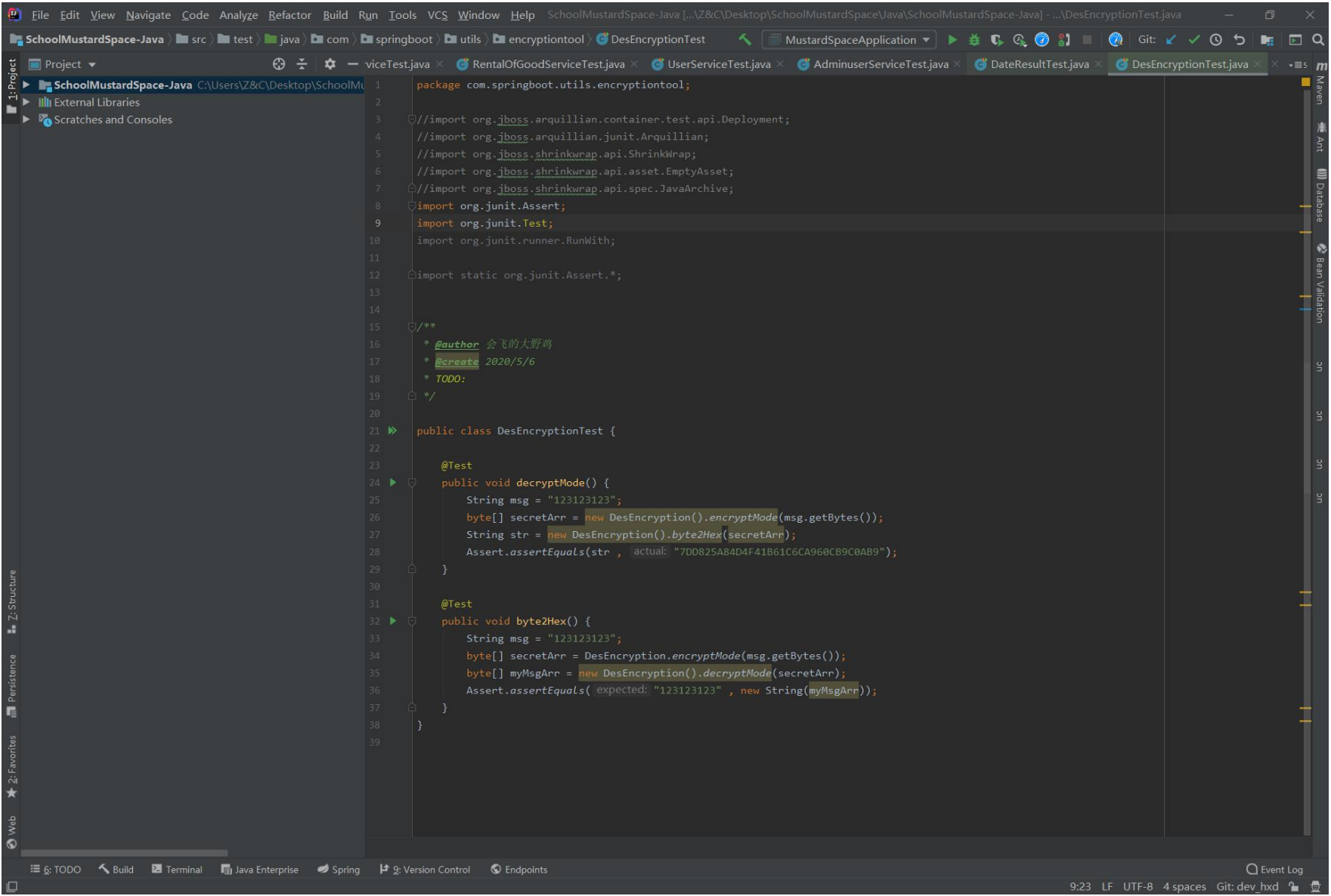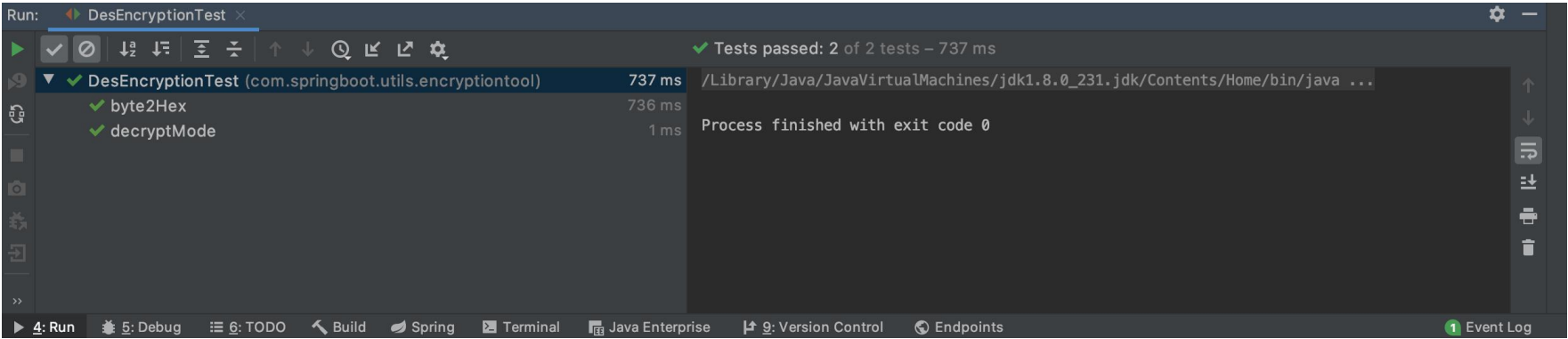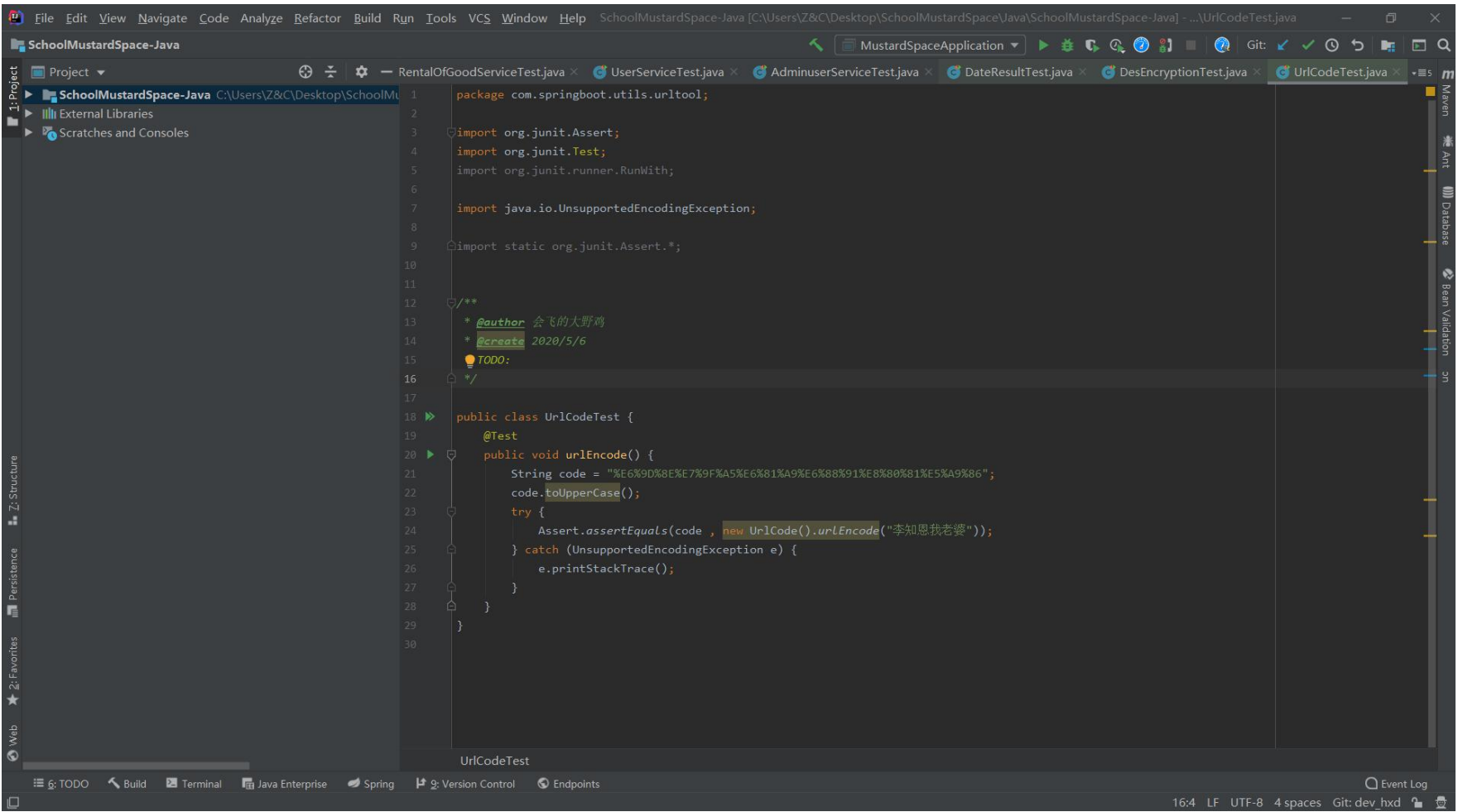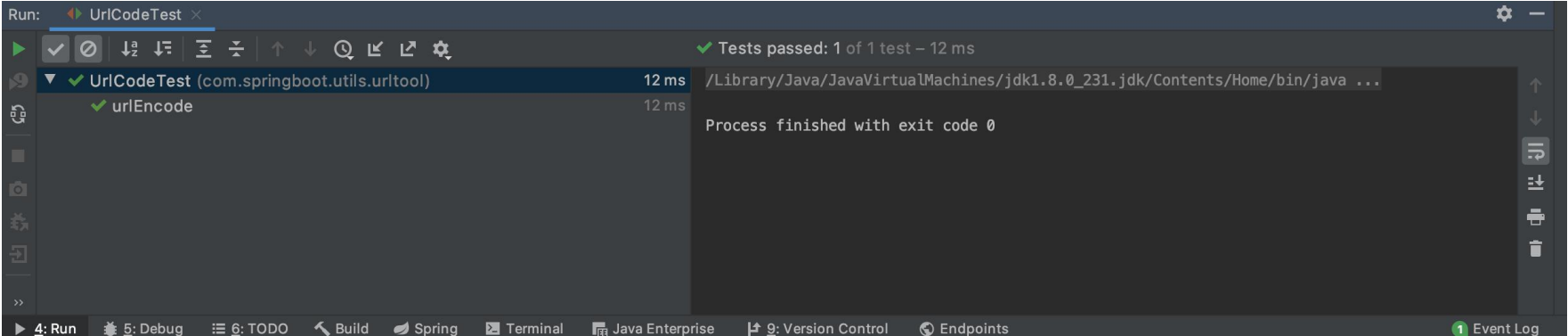
运行结果



## 2. 用户服务层测试

代码截图

```java
package com.test.servicetest;

import com.springboot.MustardSpaceApplication;
import com.springboot.domain.User;
import com.springboot.service.UserService;
import com.springboot.utils.encryptiontool.DesEncryption;
import org.junit.Assert;
import org.junit.Test;
import org.junit.runner.RunWith;
import org.springframework.beans.factory.annotation.Autowired;
import org.springframework.boot.test.context.SpringBootTest;
import org.springframework.test.context.junit4.SpringRunner;

import static com.springboot.utils.encryptiontool.DesEncryption.byte2Hex;

/**
 * @author 会飞的大野鸡
 * @create 2020/5/7
 * TODO:
 */

@RunWith(SpringRunner.class)
@SpringBootTest(classes = {MustardSpaceApplication.class})
public class UserServiceTest {

    @Autowired
    private UserService userService;


    /**
     * testLogin
     * TODO
     * @description testLogin
     * 、, 'µ«¬® "√¿˘ 221701412 √‹¬Í 666666
     * @author 221701412_theTuring
     * @version v 1.0.0
     * @since 2020.5.6
     */
    @Test
    public void testLogin(){

        String account = "221701412";
        String password = "test666";


        // º"√‹
        byte[] secretArr = DesEncryption.encryptMode(password.getBytes());
        String str = byte2Hex(secretArr);

        String result = userService.login(account,str);
        String expected = "succeed";

        Assert.assertEquals(expected,result);
    }

    /**
     * testRegister
     * TODO
     * @description testRegister
     * @author 221701412_theTuring
     * @version v 1.0.0
     * @since 2020.5.6
     */
    @Test
    public void testRegister(){

        User user = new User();

        user.setAccountNumber("test");
        user.setPassword("test");

        String result = userService.register(user);
        String expected = "succeed";

        Assert.assertEquals(expected,result);
    }

    /**
     * testFindPassword
     * TODO
     * @description testFindPassword
     * @author 221701412_theTuring
     * @version v 1.0.0
     * @since 2020.5.6
     */
    @Test
    public void testFindPassword(){


        String account = "221701412";
        String password = "test666";


        // º"√‹
        byte[] secretArr = DesEncryption.encryptMode(password.getBytes());
        String str = byte2Hex(secretArr);

        String result = userService.findPassword(account,str);
        String expected = "succeed";

        Assert.assertEquals(expected,result);
    }

    /**
     * testChangePassword
     * TODO
     * @description testChangePassword
     * @author 221701412_theTuring
     * @version v 1.0.0
     * @since 2020.5.6
     */
    @Test
    public void testChangePassword(){

        String account = "221701412";
        String password = "test666";
        String newPassword = "test666";


        // º"√‹
        byte[] secretArr = DesEncryption.encryptMode(password.getBytes());
        String str = byte2Hex(secretArr);

        String result = userService.changePassword(account,str,newPassword);
        String expected = "succeed";

        Assert.assertEquals(expected,result);
    }
```

运行结果



## 3. 任务服务层测试

代码截图

```java
package com.test.servicetest;

import com.springboot.MustardSpaceApplication;
import com.springboot.domain.Task;
import com.springboot.service.TaskService;
import org.junit.Assert;
import org.junit.Test;
import org.junit.runner.RunWith;
import org.springframework.beans.factory.annotation.Autowired;
import org.springframework.boot.test.context.SpringBootTest;
import org.springframework.test.context.junit4.SpringRunner;

import java.util.List;

/**
 * @author 会飞的大野鸡
 * @create 2020/5/7
 * TODO:
 */

@RunWith(SpringRunner.class)
@SpringBootTest(classes = {MustardSpaceApplication.class})
public class TaskServiceTest {

    @Autowired
    private TaskService taskService;

    /**
     * testGetAllTask
     * TODO
     * @description testGetAllTask
     * @author 221701412_theTuring
     * @version v 1.0.0
     * @since 2020.5.6
     */
    @Test
    public void testGetAllTask(){

        List<Task> list = taskService.getAllTask();

        Assert.assertNotNull(list);

    }

    /**
     * testGetAllTask
     * TODO
     * @description testQueryTaskById
     * @author 221701412_theTuring
     * @version v 1.0.0
     * @since 2020.5.6
     */
    @Test
    public void testQueryTaskById(){

        String id = "10c6512b-6681-4b7a-a038-bb8367ea80f4";

        Task task = taskService.queryTaskById(id);

        Assert.assertNotNull(task);
    }

    /**
     * testQueryTaskByUserId
     * TODO
     * @description testQueryTaskByUserId
     * @author 221701412_theTuring
     * @version v 1.0.0
     * @since 2020.5.6
     */
    @Test
    public void testQueryTaskByUserId(){

        String id = "10c6512b-6681-4b7a-a038-bb8367ea80f4";

        List<Task> list = taskService.queryTaskByUserId(id);

        Assert.assertNotNull(list);
    }

    /**
     * testGetLikeContent
     * TODO
     * @description testGetLikeContent
     * @author 221701412_theTuring
     * @version v 1.0.0
     * @since 2020.5.6
     */
    @Test
    public void testGetLikeContent(){

        String content = "test";

        List<Task> list = taskService.getLikeContent(content);

        Assert.assertNotNull(list);
    }

    /**
     * testGetLikeTitle
     * TODO
     * @description testGetLikeTitle
     * @author 221701412_theTuring
     * @version v 1.0.0
     * @since 2020.5.6
     */
    @Test
    public void testGetLikeTitle(){

        String title = "test";

        List<Task> list = taskService.getLikeTitle(title);

        Assert.assertNotNull(list);
    }

    /**
     * testGetLikeLabel
     * TODO
     * @description testGetLikeLabel
     * @author 221701412_theTuring
     * @version v 1.0.0
     * @since 2020.5.6
     */
```

运行结果



## 4. 失物招领服务层测试

代码截图

```java
package com.test.servicetest;

import com.springboot.MustardSpaceApplication;
import com.springboot.domain.LostAndFound;
import com.springboot.mapper.LostAndFoundMapper;
import com.springboot.service.LostAndFoundService;
import com.springboot.utils.datetool.DateResult;
import org.junit.Assert;
import org.junit.Test;
import org.junit.runner.RunWith;
import org.springframework.beans.factory.annotation.Autowired;
import org.springframework.boot.test.context.SpringBootTest;
import org.springframework.test.context.junit4.SpringRunner;

import java.util.LinkedList;
import java.util.List;
import java.util.UUID;

/**
 * @author 会飞的大野鸡
 * @create 2020/5/7
 * TODO:
 */

@RunWith(SpringRunner.class)
@SpringBootTest(classes = {MustardSpaceApplication.class})
public class LostAndFoundServiceTest {
    @Autowired
    private LostAndFoundService lostAndFoundService;

    @Test
    public void insertLostAndFound(){
        LostAndFound lostAndFound = new LostAndFound();
        lostAndFound.setId(UUID.randomUUID().toString());
        lostAndFound.setUserId(1);
        lostAndFound.setTitle("asd");
        lostAndFound.setContent("asd");
        lostAndFound.setImage("asd");
        lostAndFound.setLabel("asd");
        lostAndFound.setLocation("asd");
        lostAndFound.setTime(new DateResult().getCurrentTime());
        lostAndFound.setIsLost(11);
        String msg = lostAndFoundService.insertLostAndFound(lostAndFound);
        Assert.assertEquals(msg , actual: "succeed");
    }

    @Test
    public void updateSome(){
        String msg1 = lostAndFoundService.updateSome( choice: 1 , id: "2f50029a-8335-4a19-b971-f37c0aa07c34");
        String msg2 = lostAndFoundService.updateSome( choice: 2 , id: "2f50029a-8335-4a19-b971-f37c0aa07c34");
        String msg3 = lostAndFoundService.updateSome( choice: 3 , id: "2f50029a-8335-4a19-b971-f37c0aa07c34");
        String msg4 = lostAndFoundService.updateSome( choice: 4 , id: "2f50029a-8335-4a19-b971-f37c0aa07c34");
        Assert.assertEquals(msg1 , actual: "succeed");
        Assert.assertEquals(msg2 , actual: "succeed");
        Assert.assertEquals(msg3 , actual: "succeed");
        Assert.assertEquals(msg4 , actual: "succeed");
    }

    @Test
    public void deleById(){
        LostAndFound lostAndFound = new LostAndFound();
        String id = UUID.randomUUID().toString();
        lostAndFound.setId(id);
        lostAndFound.setUserId(1);
        lostAndFound.setTitle("asd");
        lostAndFound.setContent("asd");
        lostAndFound.setImage("asd");
        lostAndFound.setLabel("asd");
        lostAndFound.setLocation("asd");
        lostAndFound.setTime(new DateResult().getCurrentTime());
        lostAndFound.setIsLost(11);
        lostAndFoundService.insertLostAndFound(lostAndFound);

        String msg = lostAndFoundService.deleteById(id);
        Assert.assertEquals(msg , actual: "succeed");
    }

    @Test
    public void selectList(){
        List<LostAndFound> lostAndFounds = lostAndFoundService.selectList( choice: 1 , userId: 1);
        List<LostAndFound> lostAndFounds1 = lostAndFoundService.selectList( choice: 2 , userId: 1);
        Assert.assertNotNull(lostAndFounds);
        Assert.assertNotNull(lostAndFounds1);
    }

    @Test
    public void selectOne(){
        String id = "2f50029a-8335-4a19-b971-f37c0aa07c34";
        LostAndFound lostAndFound = new LostAndFound();
        lostAndFound = null;
        lostAndFound = lostAndFoundService.selectOne(id);
        Assert.assertNotNull(lostAndFound);
    }

    @Test
    public void selectLike(){
        List<LostAndFound> lostAndFounds = new LinkedList<~>();
        List<LostAndFound> lostAndFounds1 = new LinkedList<~>();
        List<LostAndFound> lostAndFounds2 = new LinkedList<~>();
        lostAndFounds = null ; lostAndFounds1 =null; lostAndFounds2 = null;
        lostAndFounds = lostAndFoundService.selectLike( choice: 1 , text: "a");
        lostAndFounds1 = lostAndFoundService.selectLike( choice: 2 , text: "a");
        lostAndFounds2 = lostAndFoundService.selectLike( choice: 3 , text: "a");
        Assert.assertNotNull(lostAndFounds);
        Assert.assertNotNull(lostAndFounds1);
        Assert.assertNotNull(lostAndFounds2);
    }

    @Test
    public void updateImg(){
        int num = lostAndFoundService.updateImg( image: "asd" , id: "2f50029a-4a19-b971-f37c0aa07c34");
        Assert.assertEquals( expected: 1 , num);
    }
}
```

运行结果



**5. 物品租赁服务层测试**

**代码截图**

```java
package com.test.servicetest;

import com.springboot.MustardSpaceApplication;
import com.springboot.domain.RentalOfGood;
import com.springboot.service.RentalOfGoodService;
import org.junit.Assert;
import org.junit.Test;
import org.junit.runner.RunWith;
import org.springframework.beans.factory.annotation.Autowired;
import org.springframework.boot.test.context.SpringBootTest;
import org.springframework.test.context.junit4.SpringRunner;

import java.util.LinkedList;
import java.util.List;
import java.util.UUID;

/**
 * @author 会飞的大野鸡
 * @create 2020/5/7
 * TODO:
 */


@RunWith(SpringRunner.class)
@SpringBootTest(classes = {MustardSpaceApplication.class})
public class RentalOfGoodServiceTest {
    @Autowired
    private RentalOfGoodService rentalOfGoodService;

    @Test
    public void insertRentalOfGood(){
        String uuid = UUID.randomUUID().toString();
        RentalOfGood rentalOfGood = new RentalOfGood();
        rentalOfGood.setId(uuid);
        rentalOfGood.setUserId(1);
        rentalOfGood.setTitle("title");
        rentalOfGood.setContent("content");
        rentalOfGood.setImage("image");
        rentalOfGood.setLabel("label");
        rentalOfGood.setLocation("location");
        rentalOfGood.setUnitPrice("unitPrice");
        rentalOfGood.setStartTime("startTime");
        rentalOfGood.setEndTime("endTime");
        rentalOfGood.setNewDegree(95);
        String msg = rentalOfGoodService.insertRentalOfGood(rentalOfGood);
        Assert.assertEquals(msg , "succeed");
    }

    @Test
    public void insertTime(){
        String msg1 = rentalOfGoodService.insertTime( c: 1 , id: "5aa20998-5c3c-4318-baca-2fa8acbbf49b");
        String msg2 = rentalOfGoodService.insertTime( c: 2 , id: "5aa20998-5c3c-4318-baca-2fa8acbbf49b");
        Assert.assertEquals(msg1 , "succeed");
        Assert.assertEquals(msg2 , "succeed");
    }

    @Test
    public void updateSome(){
        String msg1 = rentalOfGoodService.updateSome( choice: 1 , id: "5aa20998-5c3c-4318-baca-2fa8acbbf49b");
        String msg2 = rentalOfGoodService.updateSome( choice: 2 , id: "5aa20998-5c3c-4318-baca-2fa8acbbf49b");
        String msg3 = rentalOfGoodService.updateSome( choice: 3 , id: "5aa20998-5c3c-4318-baca-2fa8acbbf49b");
        String msg4 = rentalOfGoodService.updateSome( choice: 4 , id: "5aa20998-5c3c-4318-baca-2fa8acbbf49b");
        Assert.assertEquals(msg1 , "succeed");
        Assert.assertEquals(msg2 , "succeed");
        Assert.assertEquals(msg3 , "succeed");
        Assert.assertEquals(msg4 , "succeed");
    }

    @Test
    public void deleteById(){
        String uuid = UUID.randomUUID().toString();
        RentalOfGood rentalOfGood = new RentalOfGood();
        rentalOfGood.setId(uuid);
        rentalOfGood.setUserId(1);
        rentalOfGood.setTitle("title");
        rentalOfGood.setContent("content");
        rentalOfGood.setImage("image");
        rentalOfGood.setLabel("label");
        rentalOfGood.setLocation("location");
        rentalOfGood.setUnitPrice("unitPrice");
        rentalOfGood.setStartTime("startTime");
        rentalOfGood.setEndTime("endTime");
        rentalOfGood.setNewDegree(95);
        rentalOfGoodService.insertRentalOfGood(rentalOfGood);
        String msg = rentalOfGoodService.deleteById(uuid);
        Assert.assertEquals(msg , "succeed");
    }

    @Test
    public void selectList(){
        List<RentalOfGood> rentalOfGoods = new LinkedList<->();
        List<RentalOfGood> rentalOfGoods1 = new LinkedList<->();
        rentalOfGoods = null; rentalOfGoods1 = null;
        rentalOfGoods = rentalOfGoodService.selectList( choice: 1 , userId: 1);
        rentalOfGoods1 = rentalOfGoodService.selectList( choice: 1 , userId: 1);
        Assert.assertNotNull(rentalOfGoods);
        Assert.assertNotNull(rentalOfGoods1);
    }

    @Test
    public void selectOne(){
        RentalOfGood rentalOfGood = new RentalOfGood();
        rentalOfGood = null;
        rentalOfGood = rentalOfGoodService.selectOne( id: "5aa20998-5c3c-4318-baca-2fa8acbbf49b");
        Assert.assertNotNull(rentalOfGood);
    }

    @Test
    public void selectLike(){
        List<RentalOfGood> rentalOfGoods = new LinkedList<->();
        rentalOfGoods = null; rentalOfGoods1 = null; rentalOfGoods2 = null;
        rentalOfGoods = rentalOfGoodService.selectLike( choice: 1 , text: "a");
        rentalOfGoods1 = rentalOfGoodService.selectLike( choice: 2 , text: "a");
        rentalOfGoods2 = rentalOfGoodService.selectLike( choice: 3 , text: "a");
        Assert.assertNotNull(rentalOfGoods);
        Assert.assertNotNull(rentalOfGoods1);
        Assert.assertNotNull(rentalOfGoods2);
    }

    @Test
    public void updateImg(){
        int num = rentalOfGoodService.updateImg( image: "asd" , id: "5aa20998-5c3c-4318-baca-2fa8acbbf49b");
        Assert.assertEquals( expected: 1 , num);
    }
}
```

运行结果



**6. 评论服务层测试**

**代码截图**

```java
package com.test.servicetest;

import com.springboot.MustardSpaceApplication;

import com.springboot.domain.Comment;
import com.springboot.service.TaskCommentService;
import org.junit.Assert;
import org.junit.Test;
import org.junit.runner.RunWith;
import org.springframework.beans.factory.annotation.Autowired;
import org.springframework.boot.test.context.SpringBootTest;
import org.springframework.test.context.junit4.SpringRunner;

import java.util.List;

/**
 * @author 会飞的大野鸡
 * @create 2020/5/7
 * TODO:
 */

@RunWith(SpringRunner.class)
@SpringBootTest(classes = {MustardSpaceApplication.class})
public class CommentServiceTest {

    @Autowired
    private TaskCommentService taskCommentService;

    /**
     * testGetAllTaskComment
     * TODO
     * @description testGetAllTaskComment
     * @author 221701412_theTuring
     * @version v 1.0.0
     * @since 2020.5.6
     */
    @Test
    public void testGetAllTaskComment(){

        List<Comment> list = taskCommentService.getAllTaskComment();

        Assert.assertNotNull(list);
    }


    /**
     * testQueryTaskCommentById
     * TODO
     * @description testQueryTaskCommentById
     * @author 221701412_theTuring
     * @version v 1.0.0
     * @since 2020.5.6
     */
    @Test
    public void testQueryTaskCommentById(){

        String id = "b51fb005-af3b-42c5-80ce-3b16531b7f30";

        Comment comment = taskCommentService.queryTaskCommentById(id);

        Assert.assertNotNull(comment);
    }

    /**
     * testQueryTaskCommentByUserId
     * TODO
     * @description testQueryTaskCommentByUserId
     * @author 221701412_theTuring
     * @version v 1.0.0
     * @since 2020.5.6
     */
    @Test
    public void testQueryTaskCommentByUserId(){

        String user_id = "1";

        List<Comment> list = taskCommentService.queryTaskCommentByUserId(user_id);

        Assert.assertNotNull(list);
    }

    /**
     * testQueryTaskCommentByTableId
     * TODO
     * @description testQueryTaskCommentByTableId
     * @author 221701412_theTuring
     * @version v 1.0.0
     * @since 2020.5.6
     */
    @Test
    public void testQueryTaskCommentByTableId(){

        String table_id = "04cc5c44-2c3e-488b-9947-1b1db08e81c1";

        List<Comment> list = taskCommentService.queryTaskCommentByTableId(table_id);

        Assert.assertNotNull(list);
    }

    /**
     * testInsertTaskComment
     * TODO
     * @description testInsertTaskComment
     * @author 221701412_theTuring
     * @version v 1.0.0
     * @since 2020.5.6
     */
    @Test
    public void testInsertTaskComment(){

        Comment comment = new Comment();

        comment.setId("test_uuid");
        comment.setTable_id("04cc5c44-2c3e-488b-9947-1b1db08e81c1");
        comment.setUser_id(1);
        comment.setPublish_time("ts");

        int result = taskCommentService.insertTaskComment(comment);
        int expected = 1;

        Assert.assertEquals(expected,result);
    }
}
```

运行结果
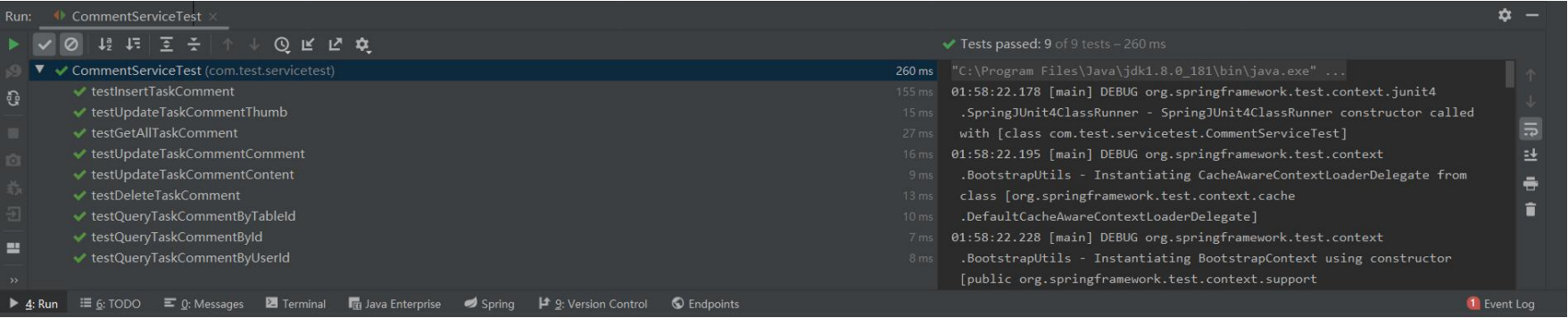


后端性能测试——221701429 黄晓东

在程序启动后开始测试，标记当时的数据方便后续对比，打开 CPU views。

第一次测试访问 43 次接口，可以看出内存使用只有细微变化，CPU 负荷短时间内升高后降低，对内存分析中，char[]和 String 的创建提升了近 20k。快速访问结束。

第二次测试访问 430 次接口，内存的使用有了小幅度的攀升，CPU 保持大约 20 秒的高负荷状态，char[]的创建增加了 2 倍，String、Object 和 class 等的创建也是大幅增加。此时查看 CPU 的调用树，发现用时较为平均。测试花费约 30 秒。

第三次测试访问 2150 次接口，运行初内存使用大幅度上升后断崖下降，观察到 GC 的活动，可以判断是垃圾自动回收，后持续上升至一半的内存保持不变，内存的使用中看出所有对象的创建都飙升，此时显然达到负载上限，查看调用树可知更新管理员信息和物品租赁的更新和查找耗时较长。

手动 GC 后内存使用下降至初始状态，各种类的实例也被删除，没有内存泄漏。

第四次测试访问 1720 次接口，内存变化和 2150 次类似，不同之处在于下降后只有小幅度上升后保持平稳，发现对象创建过多，较初始状态提升 16 倍有余，可以考虑减少对象的创建，调用树中分析/api/rental/query/all 的耗费时间对比其他高了一倍以上，原因应该是在数据库中存在大量数据时查询全部非常缓慢，考虑优化查询方式。

Local attach - JProfiler 11.1

Session  View  Profiling  Window  Help

Aggregation level: Classes

| Name | Instance Count | Difference | Size |
|---|---|---|---|
| char[ ] | 68,008 | -15,368 (-18 %) | 9,447 kB |
| java.lang.String | 66,454 | -6,563 (-9 %) | 1,594 kB |
| java.util.concurrent.ConcurrentHashMap$Node | 29,472 | -739 (-2 %) | 943 kB |
| java.lang.reflect.Method | 21,945 | 0 (±0 %) | 1,931 kB |
| java.lang.Class[ ] | 18,798 | -9,877 (-34 %) | 409 kB |
| java.util.LinkedHashMap$Entry | 18,214 | -1,197 (-6 %) | 728 kB |
| java.util.HashMap$Node | 17,939 | -2,341 (-12 %) | 574 kB |
| java.lang.Object | 16,977 | -2,496 (-13 %) | 271 kB |
| java.lang.Object[ ] | 10,998 | -4,700 (-30 %) | 618 kB |
| java.lang.Class | 10,533 | +129 (+1 %) | 1,174 kB |
| java.util.LinkedHashMap | 7,846 | -1,189 (-13 %) | 439 kB |
| java.util.HashMap$Node[ ] | 7,395 | -2,307 (-24 %) | 572 kB |
| org.springframework.transaction.interceptor.Ab... | 7,226 | 0 (±0 %) | 173 kB |
| java.lang.Class$AnnotationData | 7,076 | 0 (±0 %) | 169 kB |
| byte[ ] | 5,513 | -5,214 (-49 %) | 1,435 kB |
| int[ ] | 5,301 | -2,805 (-35 %) | 1,804 kB |
| java.util.ArrayList | 5,196 | -2,062 (-28 %) | 124 kB |
| java.lang.String[ ] | 4,019 | -582 (-13 %) | 150 kB |
| java.util.LinkedList | 3,016 | -262 (-8 %) | 96,512 bytes |
| java.util.LinkedHashSet | 2,968 | -399 (-12 %) | 47,488 bytes |
| java.lang.reflect.Field | 2,956 | 0 (±0 %) | 212 kB |
| java.util.HashMap | 2,875 | -1,995 (-41 %) | 138 kB |
| java.lang.ref.SoftReference | 2,830 | +122 (+5 %) | 113 kB |
| java.util.TreeMap$Entry | 2,458 | -735 (-23 %) | 98,320 bytes |
| java.beans.MethodRef | 2,451 | 0 (±0 %) | 58,824 bytes |
| java.util.LinkedList$Node | 2,296 | -341 (-13 %) | 55,104 bytes |
| java.lang.ref.WeakReference | 2,290 | -43 (-2 %) | 73,280 bytes |
| java.lang.reflect.Constructor | 2,238 | +106 (+5 %) | 179 kB |
| org.springframework.core.annotation.Annotatio... | 2,163 | 0 (±0 %) | 34,608 bytes |
| java.util.Hashtable$Entry | 2,143 | 0 (±0 %) | 68,576 bytes |
| java.util.LinkedHashMap$LinkedKeySet | 2,027 | -176 (-8 %) | 32,432 bytes |
| java.lang.Class$ReflectionData | 1,971 | +122 (+7 %) | 110 kB |
| java.lang.reflect.Method[ ] | 1,966 | 0 (±0 %) | 135 kB |
| sun.reflect.annotation.AnnotationInvocationHan... | 1,792 | 0 (±0 %) | 43,008 bytes |
| Total: | 468,553 | -82,339 (-15 %) | 27,707 kB |

Class View Filters

2 overhead hot spots    1 active recording    Auto-update 2 s    VM #1    29:29    Profiling



Local attach - JProfiler 11.1

Session  View  Profiling  Window  Help

2 overhead hot spots    1 active recording    Auto-update 2 s    VM #1    29:17    Profiling

## Screenshot 1: Call Tree View

**Local attach - JProfiler 11.1**

Session | View | Profiling | Window | Help

Toolbar: Start Center | Detach | Save Snapshot | Session Settings | Start Recordings | Stop Recordings | Start Tracking | Run GC | Add Bookmark | Export | View Settings | Help | Show Legend | Stop CPU | Back | Forward | Show Graph | Analyze

Sections: Session | Profiling | View specific

Thread selection: All thread groups
Thread status: Runnable
Aggregation level: Methods
View mode: Tree

Left panel:
- Telemetries
- Live memory
- Heap Walker
- CPU views
- Call Tree
- Hot Spots
- Call Graph
- Outlier Detection
- Complexity Analysis
- Call Tracer
- JavaScript XHR
- Threads
- Monitors & locks
- Databases
- JEE & Probes

Call tree:
- 100.0% - 9,573 ms - 10 inv. org.apache.tomcat.util.threads.TaskThread$WrappingRunnable.run
  - 8.6% - 823 ms - 61 inv. HTTP: /api/admin/update
  - 7.7% - 736 ms - 61 inv. HTTP: /api/rental/update/collect
  - 7.0% - 666 ms - 61 inv. HTTP: /api/rental/query/like/label
  - 3.0% - 291 ms - 122 inv. HTTP: /api/admin/find/password
  - 2.5% - 242 ms - 122 inv. HTTP: /api/user/find/password
  - 2.0% - 187 ms - 61 inv. HTTP: /api/admin/register
  - 1.9% - 186 ms - 61 inv. HTTP: /api/rental/query/userId
  - 1.9% - 181 ms - 61 inv. HTTP: /api/lost_and_found/query/like/title
  - 1.9% - 177 ms - 61 inv. HTTP: /api/lost_and_found/query/like/label
  - 1.8% - 171 ms - 61 inv. HTTP: /api/rental/query/like/title
  - 1.7% - 167 ms - 61 inv. HTTP: /api/rental/insert
  - 1.7% - 163 ms - 61 inv. HTTP: /api/rental/query/like/content
  - 1.7% - 161 ms - 61 inv. HTTP: /api/rental/query/all
  - 1.7% - 160 ms - 61 inv. HTTP: /api/lost_and_found/query/userId
  - 1.7% - 158 ms - 61 inv. HTTP: /api/admin/login
  - 1.6% - 157 ms - 61 inv. HTTP: /api/lost_and_found/insert
  - 1.6% - 156 ms - 61 inv. HTTP: /api/lost_and_found/query/like/content
  - 1.6% - 155 ms - 61 inv. HTTP: /api/user/update
  - 1.6% - 155 ms - 61 inv. HTTP: /api/lost_and_found/query/all
  - 1.6% - 155 ms - 61 inv. HTTP: /api/user/login
  - 1.6% - 153 ms - 61 inv. HTTP: /api/user/register
  - 1.6% - 149 ms - 61 inv. HTTP: /api/admin/query/accountNumber/221701429
  - 1.6% - 148 ms - 61 inv. HTTP: /api/user/query/accountNumber/221701429
  - 1.5% - 145 ms - 61 inv. HTTP: /api/rental/update/isDone
  - 1.5% - 143 ms - 61 inv. HTTP: /api/admin/query/id/6
  - 1.5% - 140 ms - 61 inv. HTTP: /api/user/query/id/16
  - 1.5% - 138 ms - 61 inv. HTTP: /api/rental/delete
  - 1.3% - 126 ms - 61 inv. HTTP: /api/rental/rent
  - 1.3% - 124 ms - 61 inv. HTTP: //api/lost_and_found/update/thumbUp
  - 1.3% - 122 ms - 61 inv. HTTP: /api/admin/delete
  - 1.3% - 120 ms - 61 inv. HTTP: /api/user/delete
  - 1.3% - 120 ms - 61 inv. HTTP: /api/lost_and_found/query/id

Call Tree View Filters

Status bar: 2 overhead hot spots | 1 active recording | Auto-update 5 s | VM #1 | 27:34 | Profiling

---

## Screenshot 2: All Objects View

**Local attach - JProfiler 11.1**

Session | View | Profiling | Window | Help

Toolbar: Start Center | Detach | Save Snapshot | Session Settings | Start Recordings | Stop Recordings | Start Tracking | Run GC | Add Bookmark | Export | View Settings | Help | Freeze View | Show In Heap Walker | Mark Current

Sections: Session | Profiling | View specific

Left panel:
- Telemetries
- Live memory
- All Objects
- Recorded Objects
- Allocation Call Tree
- Allocation Hot Spots
- Class Tracker
- Heap Walker
- CPU views
- Threads
- Monitors & locks
- Databases
- JEE & Probes
- MBeans

Aggregation level: Classes

| Name | Instance Count | Difference | Size |
|------|---------------|------------|------|
| char[ ] | 723,364 | +639,988 (+768 %) | 51,025 kB |
| java.lang.Object[ ] | 496,964 | +481,266 (+3066 %) | 11,904 kB |
| java.lang.String | 450,614 | +377,597 (+517 %) | 10,814 kB |
| java.lang.Class[ ] | 296,051 | +267,376 (+932 %) | 5,036 kB |
| byte[ ] | 136,768 | +126,041 (+1175 %) | 17,956 kB |
| com.mysql.cj.result.StringValueFactory | 110,318 | +109,840 (+22979 %) | 1,765 kB |
| java.lang.Integer | 92,351 | +90,886 (+6204 %) | 1,477 kB |
| java.util.HashMap | 83,455 | +78,585 (+1614 %) | 4,005 kB |
| com.mysql.cj.result.StringConverter | 81,880 | +81,552 (+24863 %) | 2,620 kB |
| java.util.HashMap$Node | 77,223 | +56,943 (+281 %) | 2,471 kB |
| java.util.HashMap$Node[ ] | 65,847 | +56,145 (+579 %) | 3,589 kB |
| int[ ] | 63,453 | +55,347 (+683 %) | 8,002 kB |
| java.util.ArrayList$Itr | 56,734 | +53,465 (+1636 %) | 1,815 kB |
| java.util.LinkedHashMap$LinkedKeyIterator | 49,852 | +47,858 (+2400 %) | 1,595 kB |
| java.util.concurrent.ConcurrentHashMap$Node | 48,130 | +17,919 (+59 %) | 1,540 kB |
| java.util.LinkedHashMap$Entry | 47,241 | +27,830 (+143 %) | 1,889 kB |
| java.nio.HeapByteBuffer | 42,646 | +41,433 (+3416 %) | 2,047 kB |
| java.util.ArrayList | 41,516 | +34,258 (+472 %) | 996 kB |
| java.util.LinkedHashMap | 37,927 | +28,892 (+320 %) | 2,123 kB |
| com.mysql.cj.util.LazyString | 31,215 | +29,988 (+2444 %) | 998 kB |
| java.lang.StringBuilder | 24,569 | +22,664 (+1190 %) | 589 kB |
| com.mysql.cj.protocol.a.NativePacketHeader | 23,513 | +23,068 (+5184 %) | 376 kB |
| java.util.LinkedHashMap$LinkedValueIterator | 23,279 | +22,258 (+2180 %) | 744 kB |
| java.lang.Object | 23,036 | +3,563 (+18 %) | 368 kB |
| java.lang.annotation.Annotation[ ] | 22,751 | +21,738 (+2146 %) | 683 kB |
| com.mysql.cj.protocol.a.NativePacketPayload | 22,368 | +21,948 (+5226 %) | 536 kB |
| java.lang.reflect.Method | 21,945 | 0 (±0 %) | 1,931 kB |
| java.util.regex.Matcher | 21,377 | +20,525 (+2409 %) | 1,368 kB |
| java.lang.String[ ] | 18,786 | +14,185 (+308 %) | 684 kB |
| org.apache.ibatis.reflection.MetaObject | 18,085 | +17,855 (+7763 %) | 578 kB |
| java.lang.reflect.Constructor | 17,967 | +15,835 (+743 %) | 1,437 kB |
| java.util.TreeMap$Entry | 16,718 | +13,525 (+424 %) | 668 kB |
| java.util.HashSet | 16,246 | +14,766 (+998 %) | 259 kB |
| org.apache.ibatis.reflection.MetaClass | 15,195 | +15,013 (+8249 %) | 364 kB |
| **Total:** | 4,054,104 | +3,484,192 (+611 %) | 170 MB |

Class View Filters

Status bar: 2 overhead hot spots | 1 active recording | Auto-update 5 s | VM #1 | 27:21 | Profiling
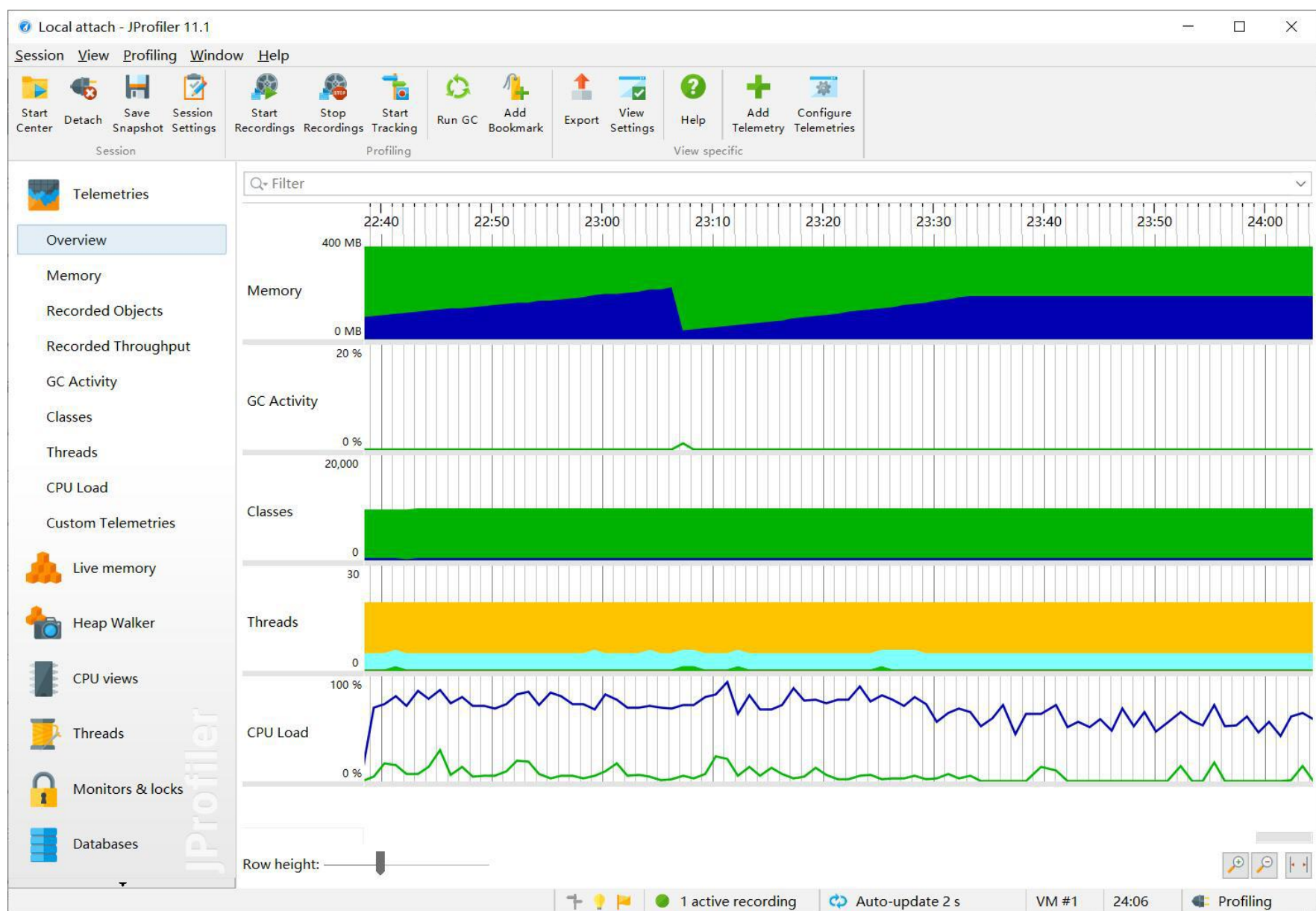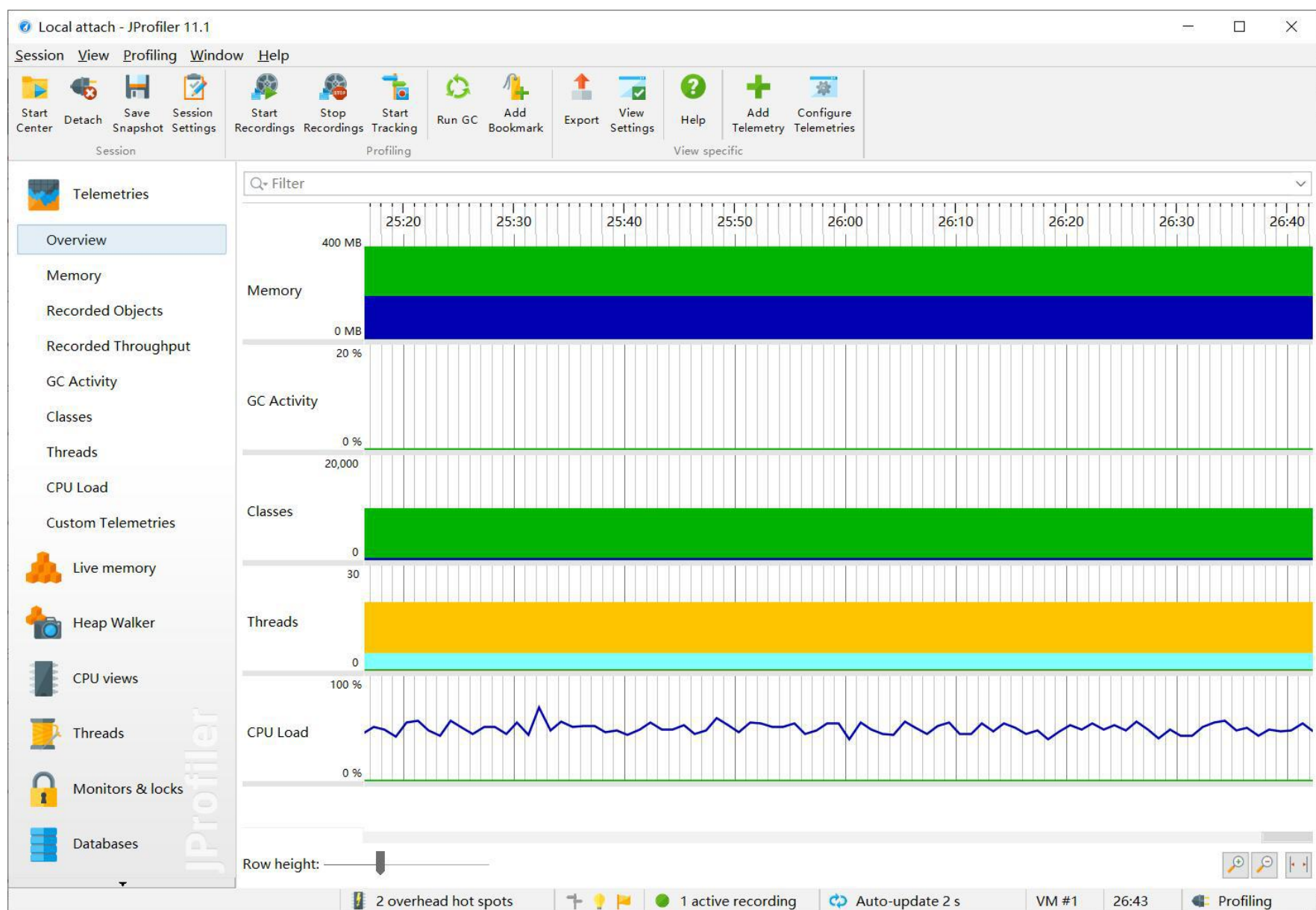
Local attach - JProfiler 11.1

Session  View  Profiling  Window  Help

Start Center | Detach | Save Snapshot | Session Settings | Start Recordings | Stop Recordings | Start Tracking | Run GC | Add Bookmark | Export | View Settings | Help | Show Legend | Stop CPU | Back | Forward | Show Graph | Analyze

Session | Profiling | View specific

| | |
|---|---|
| Telemetries | |
| Live memory | |
| Heap Walker | |
| CPU views | |
| **Call Tree** | |
| Hot Spots | |
| Call Graph | |
| Outlier Detection | |
| Complexity Analysis | |
| Call Tracer | |
| JavaScript XHR | |
| Threads | |
| Monitors & locks | |
| Databases | |
| JEE & Probes | |

Thread selection: All thread groups  
Thread status: Runnable  
Aggregation level: Methods  
View mode: Tree

- 100.0% - 3,875 ms - 10 inv. org.apache.tomcat.util.threads.TaskThread$WrappingRunnable.run
  - 12.2% - 473 ms - 40 inv. HTTP: /api/rental/query/all
    - 10.6% - 409 ms - 40 inv. com.springboot.controller.RentalOfGoodController.queryAll
      - 10.5% - 408 ms - 40 inv. com.springboot.service.Impl.RentalOfGoodServiceImpl.selectList
        - 10.5% - 408 ms - 40 inv. org.mybatis.spring.SqlSessionTemplate.selectList
          - 10.5% - 408 ms - 40 inv. org.apache.ibatis.session.SqlSession.selectList
            - 10.5% - 408 ms - 40 inv. org.mybatis.spring.SqlSessionTemplate$SqlSessionInterceptor.invoke
              - 10.5% - 406 ms - 40 inv. java.lang.reflect.Method.invoke
                - 8.4% - 326 ms - 5,900 inv. com.springboot.domain.RentalOfGood.setUserId
                - 0.0% - 1,047 µs - 5,900 inv. com.springboot.domain.RentalOfGood.setId
                - 0.0% - 785 µs - 5,900 inv. com.springboot.domain.RentalOfGood.setTitle
                - 0.0% - 747 µs - 5,900 inv. com.springboot.domain.RentalOfGood.setCollect
                - 0.0% - 744 µs - 5,900 inv. com.springboot.domain.RentalOfGood.setContent
                - 0.0% - 737 µs - 5,900 inv. com.springboot.domain.RentalOfGood.setLocation
                - 0.0% - 725 µs - 5,900 inv. com.springboot.domain.RentalOfGood.setStartTime
                - 0.0% - 708 µs - 5,900 inv. com.springboot.domain.RentalOfGood.setIsDone
                - 0.0% - 706 µs - 5,900 inv. com.springboot.domain.RentalOfGood.setImage
                - 0.0% - 693 µs - 5,900 inv. com.springboot.domain.RentalOfGood.setComment
                - 0.0% - 672 µs - 5,900 inv. com.springboot.domain.RentalOfGood.setLabel
                - 0.0% - 670 µs - 5,900 inv. com.springboot.domain.RentalOfGood.setThumbUp
                - 0.0% - 665 µs - 5,900 inv. com.springboot.domain.RentalOfGood.setEndTime
                - 0.0% - 661 µs - 5,900 inv. com.springboot.domain.RentalOfGood.setUnitPrice
                - 0.0% - 644 µs - 5,900 inv. com.springboot.domain.RentalOfGood.setNewDegree
                - 0.0% - 565 µs - 40 inv. org.mybatis.spring.transaction.SpringManagedTransaction.getConnection
                - 0.0% - 44 µs - 40 inv. org.mybatis.spring.transaction.SpringManagedTransaction.getTimeout
              - 0.0% - 799 µs - 40 inv. org.mybatis.spring.SqlSessionUtils.closeSqlSession
              - 0.0% - 491 µs - 40 inv. org.mybatis.spring.SqlSessionUtils.getSqlSession
              - 0.0% - 176 µs - 40 inv. org.apache.ibatis.session.SqlSession.commit
              - 0.0% - 142 µs - 40 inv. org.mybatis.spring.SqlSessionUtils.isSqlSessionTransactional
        - 0.0% - 76 µs - 40 inv. java.util.LinkedList.<init>
        - 0.0% - 54 µs - 40 inv. java.lang.Integer.valueOf
        - 0.0% - 41 µs - 40 inv. com.springboot.utils.jsontool.JsonResult.build
        - 0.0% - 755 µs - 5,900 inv. com.springboot.domain.RentalOfGood.getId

Call Tree View Filters

1 overhead hot spot | 1 active recording | Auto-update 5 s | VM #1 | 31:10 | Profiling

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Local attach - JProfiler 11.1

Session  View  Profiling  Window  Help

Start Center | Detach | Save Snapshot | Session Settings | Start Recordings | Stop Recordings | Start Tracking | Run GC | Add Bookmark | Export | View Settings | Help | Freeze View | Show In Heap Walker | Mark Current

Session | Profiling | View specific

| | |
|---|---|
| Telemetries | |
| Live memory | |
| **All Objects** | |
| Recorded Objects | |
| Allocation Call Tree | |
| Allocation Hot Spots | |
| Class Tracker | |
| Heap Walker | |
| CPU views | |
| Threads | |
| Monitors & locks | |
| Databases | |
| JEE & Probes | |
| MBeans | |

Aggregation level: Classes

| Name | Instance Count | Difference | Size |
|---|---|---|---|
| char[ ] | 243,155 | +179,540 (+282 %) | 18,336 kB |
| java.lang.Object[ ] | 185,831 | +175,369 (+1676 %) | 4,422 kB |
| java.lang.String | 172,141 | +109,960 (+177 %) | 4,131 kB |
| java.lang.Class[ ] | 51,729 | +41,546 (+408 %) | 906 kB |
| com.mysql.cj.result.StringValueFactory | 45,304 | +45,304 (+Inf %) | 724 kB |
| java.lang.Integer | 35,909 | +35,173 (+4779 %) | 574 kB |
| com.mysql.cj.result.StringConverter | 33,474 | +33,474 (+Inf %) | 1,071 kB |
| byte[ ] | 32,664 | +27,712 (+560 %) | 4,374 kB |
| java.lang.Object | 31,771 | +15,418 (+94 %) | 508 kB |
| java.util.concurrent.ConcurrentHashMap$Node | 31,594 | +2,289 (+8 %) | 1,011 kB |
| java.util.HashMap$Node | 24,517 | +7,306 (+42 %) | 784 kB |
| java.util.LinkedHashMap$Entry | 20,746 | +3,546 (+21 %) | 829 kB |
| java.util.HashMap | 20,528 | +17,855 (+668 %) | 985 kB |
| java.util.ArrayList$Itr | 15,837 | +15,834 (+527800 %) | 506 kB |
| java.lang.reflect.Method | 15,387 | 0 (±0 %) | 1,354 kB |
| java.util.HashMap$Node[ ] | 14,171 | +7,137 (+101 %) | 915 kB |
| int[ ] | 12,349 | +6,883 (+126 %) | 2,213 kB |
| java.util.LinkedHashMap | 11,131 | +3,653 (+49 %) | 623 kB |
| java.lang.Class | 10,493 | +10 (+0 %) | 1,170 kB |
| java.util.ArrayList | 9,240 | +4,431 (+92 %) | 221 kB |
| java.nio.HeapByteBuffer | 9,181 | +9,154 (+33904 %) | 440 kB |
| java.lang.reflect.Constructor | 7,263 | +5,831 (+407 %) | 581 kB |
| org.springframework.transaction.interceptor.Ab... | 7,226 | 0 (±0 %) | 173 kB |
| java.lang.Class$AnnotationData | 7,032 | 0 (±0 %) | 168 kB |
| com.mysql.cj.protocol.a.NativePacketPayload | 6,763 | +6,742 (+32105 %) | 162 kB |
| com.mysql.cj.protocol.a.NativePacketHeader | 6,719 | +6,719 (+Inf %) | 107 kB |
| org.apache.ibatis.reflection.MetaObject | 6,115 | +6,115 (+Inf %) | 195 kB |
| java.util.LinkedHashMap$LinkedKeyIterator | 6,013 | +6,003 (+60030 %) | 192 kB |
| org.apache.ibatis.reflection.MetaClass | 5,763 | +5,763 (+Inf %) | 138 kB |
| org.apache.ibatis.reflection.wrapper.BeanWrapp... | 5,763 | +5,763 (+Inf %) | 138 kB |
| java.lang.String[ ] | 5,715 | +1,789 (+46 %) | 210 kB |
| com.mysql.cj.protocol.a.result.TextBufferRow | 5,669 | +5,669 (+Inf %) | 272 kB |
| java.lang.management.MemoryUsage | 5,652 | +5,646 (+94100 %) | 271 kB |
| java.util.TreeMap$Entry | 5,642 | +3,278 (+139 %) | 225 kB |
| **Total:** | 1,321,314 | +897,961 (+212 %) | 56,501 kB |

Class View Filters

1 overhead hot spot | 1 active recording | Auto-update 2 s | VM #1 | 30:46 | Profiling

## Window 1 (Call Tree)

Local attach - JProfiler 11.1

Session  View  Profiling  Window  Help

Start Center | Detach | Save Snapshot | Session Settings | Start Recordings | Stop Recordings | Start Tracking | Run GC | Add Bookmark | Export | View Settings | Help | Show Legend | Stop CPU | Back | Forward | Show Graph | Analyze

Session | Profiling | View specific

- Telemetries
- Live memory
- Heap Walker
- CPU views
- **Call Tree**
- Hot Spots
- Call Graph
- Outlier Detection
- Complexity Analysis
- Call Tracer
- JavaScript XHR
- Threads
- Monitors & locks
- Databases
- JEE & Probes

Thread selection: All thread groups

Thread status: Runnable

Aggregation level: Methods

View mode: Tree

- 100.0% - 2,340 ms - 10 inv. org.apache.tomcat.util.threads.TaskThread$WrappingRunnable.run
  - 4.3% - 101 ms - 22 inv. HTTP: /api/admin/find/password
  - 3.5% - 82,408 µs - 11 inv. HTTP: /api/admin/register
  - 2.7% - 63,206 µs - 22 inv. HTTP: /api/user/find/password
  - 2.5% - 57,399 µs - 11 inv. HTTP: /api/rental/query/userId
  - 2.3% - 52,995 µs - 11 inv. HTTP: /api/user/query/accountNumber/221701429
  - 2.2% - 50,965 µs - 11 inv. HTTP: /api/admin/query/id/6
  - 2.1% - 49,382 µs - 11 inv. HTTP: /api/user/login
  - 2.1% - 49,216 µs - 11 inv. HTTP: /api/admin/login
  - 2.1% - 48,818 µs - 11 inv. HTTP: /api/rental/insert
  - 2.0% - 47,103 µs - 11 inv. HTTP: /api/user/register
  - 2.0% - 46,344 µs - 11 inv. HTTP: /api/lost_and_found/query/like/label
  - 2.0% - 45,721 µs - 11 inv. HTTP: /api/user/update
  - 1.9% - 44,890 µs - 11 inv. HTTP: /api/user/query/id/16
  - 1.9% - 44,582 µs - 11 inv. HTTP: /api/admin/query/accountNumber/221701429
  - 1.9% - 44,299 µs - 11 inv. HTTP: /api/lost_and_found/query/userId
  - 1.8% - 43,109 µs - 11 inv. HTTP: /api/lost_and_found/query/like/title
  - 1.8% - 42,582 µs - 11 inv. HTTP: /api/lost_and_found/insert
  - 1.8% - 42,447 µs - 11 inv. HTTP: /api/admin/delete
  - 1.8% - 41,889 µs - 11 inv. HTTP: /api/user/delete
  - 1.8% - 41,858 µs - 11 inv. HTTP: /api/admin/update
  - 1.8% - 41,397 µs - 11 inv. HTTP: //api/lost_and_found/update/thumbUp
  - 1.8% - 41,176 µs - 11 inv. HTTP: /api/rental/query/like/title
  - 1.8% - 41,009 µs - 11 inv. HTTP: /api/rental/query/like/content
  - 1.7% - 40,496 µs - 11 inv. HTTP: /api/lost_and_found/query/id
  - 1.7% - 40,453 µs - 11 inv. HTTP: /api/rental/delete
  - 1.7% - 40,440 µs - 11 inv. HTTP: /api/rental/query/like/content
  - 1.7% - 40,406 µs - 11 inv. HTTP: /api/rental/update/isDone
  - 1.7% - 39,194 µs - 11 inv. HTTP: /api/rental/update/thumbUp
  - 1.7% - 38,627 µs - 11 inv. HTTP: /api/rental/query/like/label
  - 1.6% - 38,588 µs - 11 inv. HTTP: /api/lost_and_found/query/all
  - 1.6% - 37,377 µs - 11 inv. HTTP: /api/rental/rent
  - 1.6% - 37,261 µs - 11 inv. HTTP: //api/lost_and_found/update/isDone

Q Call Tree View Filters

1 active recording | Auto-update 5 s | VM #1 | 22:19 | Profiling

## Window 2 (Live memory - All Objects)

Local attach - JProfiler 11.1

Session  View  Profiling  Window  Help

Start Center | Detach | Save Snapshot | Session Settings | Start Recordings | Stop Recordings | Start Tracking | Run GC | Add Bookmark | Export | View Settings | Help | Freeze View | Show In Heap Walker | Mark Current

Session | Profiling | View specific

- Telemetries
- Live memory
- **All Objects**
- Recorded Objects
- Allocation Call Tree
- Allocation Hot Spots
- Class Tracker
- Heap Walker
- CPU views
- Threads
- Monitors & locks
- Databases
- JEE & Probes
- MBeans

Aggregation level: Classes

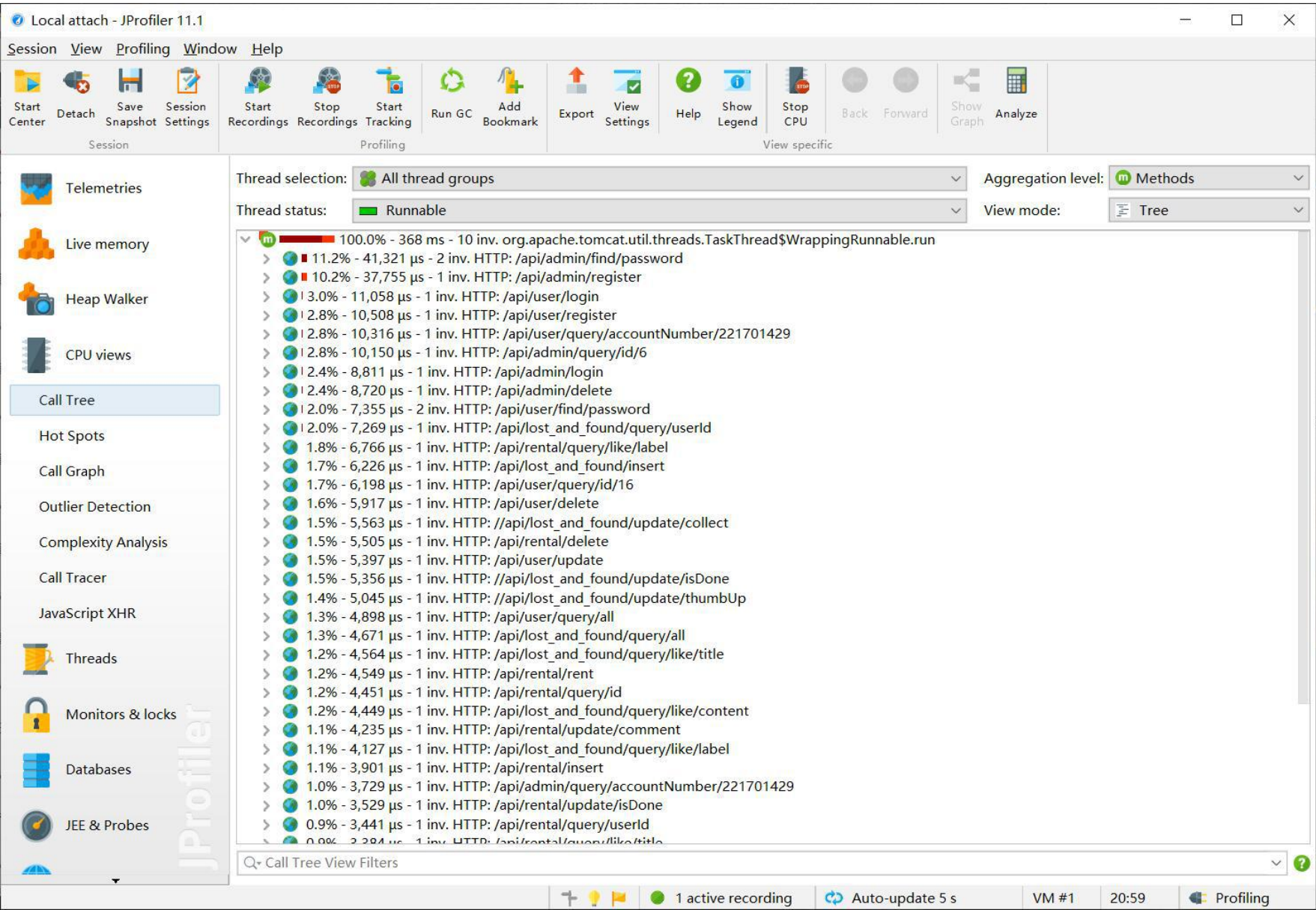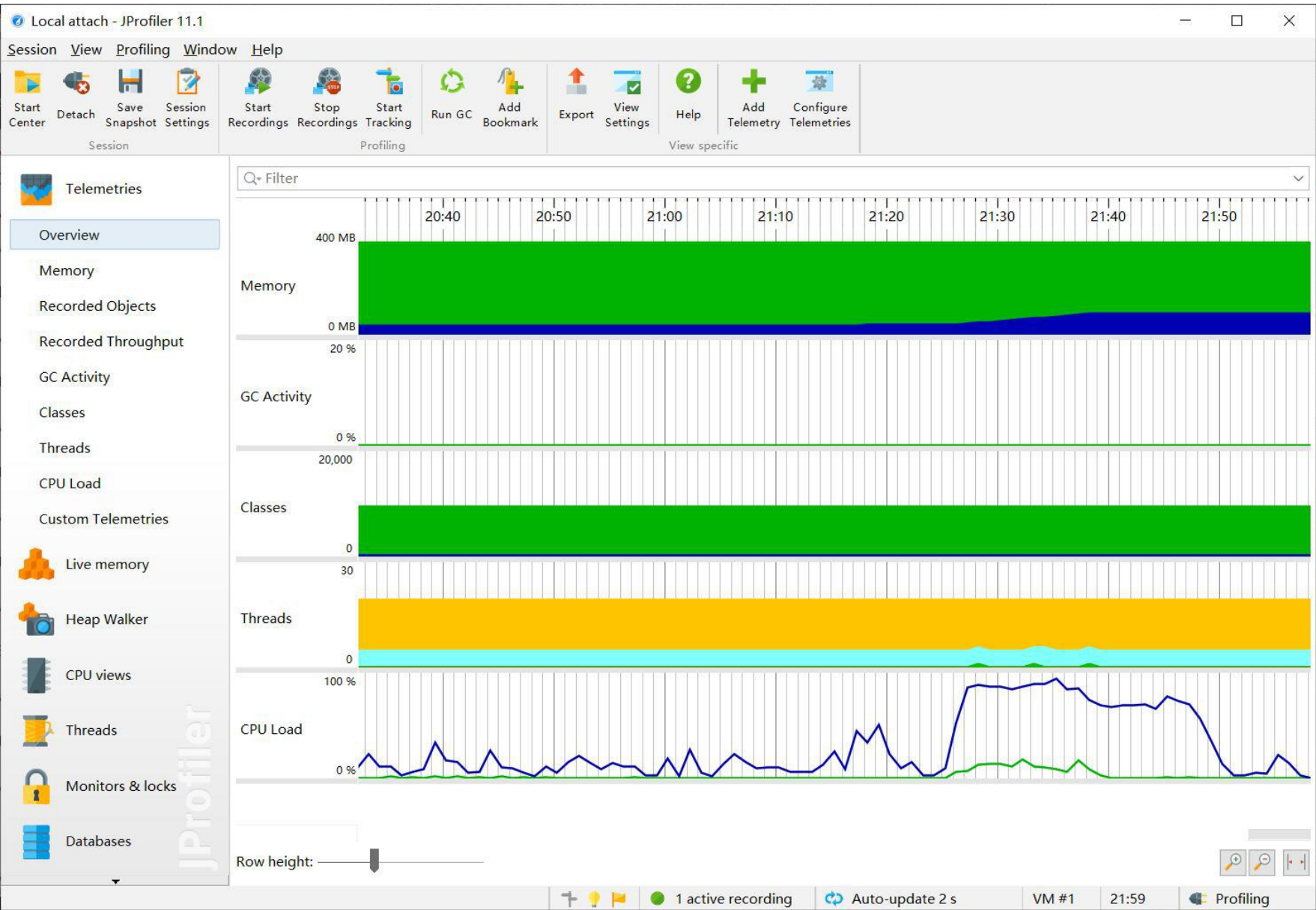| Name | Instance Count | Difference | Size |
|------|----------------|------------|------|
| char[ ] | 261,289 | +177,913 (+213 %) | 25,120 kB |
| java.lang.String | 160,632 | +87,615 (+120 %) | 3,855 kB |
| java.lang.Class[ ] | 129,650 | +100,975 (+352 %) | 2,266 kB |
| java.lang.Object[ ] | 82,495 | +66,797 (+426 %) | 2,608 kB |
| byte[ ] | 56,463 | +45,736 (+426 %) | 7,972 kB |
| java.util.HashMap$Node | 43,635 | +23,355 (+115 %) | 1,396 kB |
| java.util.concurrent.ConcurrentHashMap$Node | 37,569 | +7,358 (+24 %) | 1,202 kB |
| java.util.HashMap$Node[ ] | 32,783 | +23,081 (+238 %) | 1,883 kB |
| int[ ] | 31,047 | +22,941 (+283 %) | 11,911 kB |
| java.util.LinkedHashMap$Entry | 30,892 | +11,481 (+59 %) | 1,235 kB |
| java.util.HashMap | 28,181 | +23,311 (+479 %) | 1,352 kB |
| java.util.ArrayList | 26,997 | +19,739 (+272 %) | 647 kB |
| java.util.ArrayList$Itr | 23,622 | +20,353 (+623 %) | 755 kB |
| java.lang.reflect.Method | 21,945 | 0 (±0 %) | 1,931 kB |
| java.util.LinkedHashMap$LinkedKeyIterator | 21,835 | +19,841 (+995 %) | 698 kB |
| java.lang.Object | 21,818 | +2,345 (+12 %) | 349 kB |
| java.lang.StringBuilder | 21,264 | +19,359 (+1016 %) | 510 kB |
| java.util.LinkedHashMap | 20,925 | +11,890 (+132 %) | 1,171 kB |
| java.util.Collections$UnmodifiableCollection$1 | 20,202 | +18,137 (+878 %) | 484 kB |
| org.apache.ibatis.reflection.property.PropertyTo... | 14,051 | +12,467 (+787 %) | 449 kB |
| java.nio.HeapByteBuffer | 13,641 | +12,428 (+1025 %) | 654 kB |
| com.mysql.cj.util.LazyString | 13,467 | +12,240 (+998 %) | 430 kB |
| java.lang.Integer | 11,880 | +10,415 (+711 %) | 190 kB |
| java.util.LinkedHashMap$LinkedValueIterator | 11,231 | +10,210 (+1000 %) | 359 kB |
| java.lang.String[ ] | 10,522 | +5,921 (+129 %) | 386 kB |
| java.lang.Class | 10,456 | +52 (+0 %) | 1,166 kB |
| java.lang.annotation.Annotation[ ] | 9,933 | +8,920 (+881 %) | 297 kB |
| com.mysql.cj.result.StringValueFactory | 9,658 | +9,180 (+1921 %) | 154 kB |
| java.util.regex.Matcher | 9,372 | +8,520 (+1000 %) | 599 kB |
| java.util.TreeMap$Entry | 8,804 | +5,611 (+176 %) | 352 kB |
| java.util.HashSet | 8,790 | +7,310 (+494 %) | 140 kB |
| java.util.LinkedHashSet | 7,357 | +3,990 (+119 %) | 117 kB |
| org.springframework.transaction.interceptor.Ab... | 7,226 | 0 (±0 %) | 173 kB |
| java.lang.Class$AnnotationData | 7,076 | 0 (±0 %) | 169 kB |
| **Total:** | 1,610,564 | +1,040,507 (+183 %) | 86,546 kB |

Q Class View Filters

1 active recording | Auto-update 2 s | VM #1 | 22:10 | Profiling

Local attach - JProfiler 11.1

Session  View  Profiling  Window  Help

Start Center | Detach | Save Snapshot | Session Settings | Start Recordings | Stop Recordings | Start Tracking | Run GC | Add Bookmark | Export | View Settings | Help | Freeze View | Show In Heap Walker | Mark Current

Session | Profiling | View specific

- Telemetries
- Live memory
  - All Objects
  - Recorded Objects
  - Allocation Call Tree
  - Allocation Hot Spots
  - Class Tracker
- Heap Walker
- CPU views
- Threads
- Monitors & locks
- Databases
- JEE & Probes
- MBeans

Aggregation level: Classes

| Name | Instance Count | Size |
|---|---|---|
| char[ ] | 83,322 | 10,707 kB |
| java.lang.String | 73,008 | 1,752 kB |
| java.util.concurrent.ConcurrentHashMap$Node | 30,211 | 966 kB |
| java.lang.Class[ ] | 28,675 | 574 kB |
| java.lang.reflect.Method | 21,945 | 1,931 kB |
| java.util.HashMap$Node | 20,280 | 648 kB |
| java.util.LinkedHashMap$Entry | 19,411 | 776 kB |
| java.lang.Object | 19,281 | 308 kB |
| java.lang.Object[ ] | 15,698 | 754 kB |
| byte[ ] | 10,670 | 2,023 kB |
| java.lang.Class | 10,404 | 1,161 kB |
| java.util.HashMap$Node[ ] | 9,702 | 691 kB |
| java.util.LinkedHashMap | 9,035 | 505 kB |
| int[ ] | 8,106 | 6,593 kB |
| java.util.ArrayList | 7,258 | 174 kB |
| org.springframework.transaction.interceptor.AbstractFallbac... | 7,226 | 173 kB |
| java.lang.Class$AnnotationData | 7,076 | 169 kB |
| java.util.HashMap | 4,867 | 233 kB |
| java.lang.String[ ] | 4,601 | 171 kB |
| java.util.LinkedHashSet | 3,367 | 53,872 bytes |
| java.util.LinkedList | 3,278 | 104 kB |
| java.util.ArrayList$Itr | 3,197 | 102 kB |
| java.util.TreeMap$Entry | 3,193 | 127 kB |
| java.lang.reflect.Field | 2,956 | 212 kB |
| java.lang.ref.SoftReference | 2,708 | 108 kB |
| java.util.LinkedList$Node | 2,637 | 63,288 bytes |
| java.beans.MethodRef | 2,451 | 58,824 bytes |
| java.lang.ref.WeakReference | 2,333 | 74,656 bytes |
| java.util.LinkedHashMap$LinkedKeySet | 2,203 | 35,248 bytes |
| org.springframework.core.annotation.AnnotationUtils$Defaul... | 2,163 | 34,608 bytes |
| java.util.Hashtable$Entry | 2,143 | 68,576 bytes |
| java.lang.reflect.Constructor | 2,132 | 170 kB |
| java.util.Collections$UnmodifiableCollection$1 | 2,041 | 48,984 bytes |
| java.util.LinkedHashMap$LinkedKeyIterator | 1,994 | 63,808 bytes |
| **Total:** | 569,505 | 36,699 kB |

Class View Filters

1 active recording | Auto-update 2 s | VM #1 | 20:38 | Profiling