

COMP303_Assignment3_Screenshots

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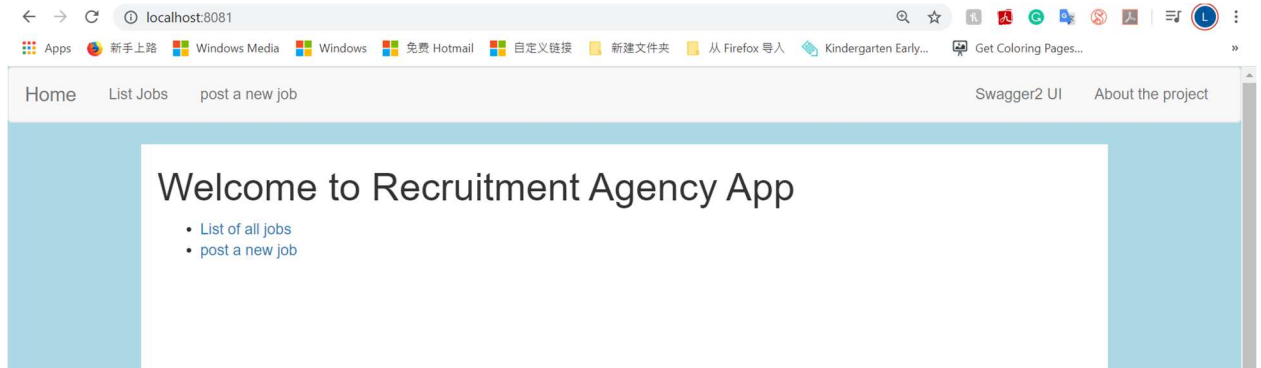
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1. WEB PAGES:

Home Page:



List of All Jobs

The screenshot shows the "List of All Jobs" page in the web browser. The page title is "Jobs List". It contains a table with 5 columns: Job Id, Job Code, Job Name, Number of Vacancy, Publish Date, and Action. The table lists 5 jobs. Each job has a "Details", "Edit", and "Delete" button in the Action column. Below the table is a link "Go to home".

Job Id	Job Code	Job Name	Number of Vacancy	Publish Date	Action
1	j0001	Branch Manager	3	2020-03-24T02:56:55.059+0000	Details Edit Delete
2	j0002	VP	1	2020-03-24T02:56:55.060+0000	Details Edit Delete
3	j0003	Financial product Manager	10	2020-03-24T02:56:55.060+0000	Details Edit Delete
4	j0003	Financial product Manager	10	2020-03-24T02:56:55.060+0000	Details Edit Delete
5	j0002	Software Developer	5	2020-03-24T02:56:55.060+0000	Details Edit Delete

[Go to home](#)

Add a new job

localhost:8081/jobs_add.html

Home List Jobs post a new job Swagger2 UI About the project

Post a Job Information here

Job Id	<input type="text" value="6"/>
Job Code	<input type="text" value="j0006"/>
Job Name	<input type="text" value="Sales"/>
Job Desc	<input type="text" value="Walmart Online Sales"/>
No of Vacancy	<input type="text" value="10"/>
Public Date	<input type="text" value="03/23/2020"/>
<input type="button" value="Add a Job Info"/>	

Add successfully

localhost:8081/jobs_add.html

Home List Jobs post a new job Swagger2 UI About the project

Post a Job Information here

Succeed to Add a job 6.

Job Id	<input type="text" value="6"/>
Job Code	<input type="text" value="j0006"/>
Job Name	<input type="text" value="Sales"/>
Job Desc	<input type="text" value="Walmart Online Sales"/>
No of Vacancy	<input type="text" value="10"/>
Public Date	<input type="text" value="03/23/2020"/>
<input type="button" value="Add a Job Info"/>	

Add a job with duplicated jobId

Home List Jobs post a new job Swagger2 UI About the project

Post a Job Information here

Job Id	<input type="text" value="5"/>
Job Code	<input type="text" value="test005"/>
Job Name	<input type="text" value="test job"/>
Job Desc	<input type="text" value="I don't know"/>
No of Vacancy	<input type="text" value="1"/>
Public Date	<input type="text" value="03/12/2020"/>
<input type="button" value="Add a Job Info"/>	

Home List Jobs post a new job Swagger2 UI About the project

Post a Job Information here

Failed to Add a job : Resource already exist: This job id already exists: 5

Job Id	<input type="text" value="5"/>
Job Code	<input type="text" value="test005"/>
Job Name	<input type="text" value="test job"/>
Job Desc	<input type="text" value="I don't know"/>
No of Vacancy	<input type="text" value="1"/>
Public Date	<input type="text" value="03/12/2020"/>
<input type="button" value="Add a Job Info"/>	

A Job Details

Job Id	1
Job Code	j0001
Job Name	Branch Manager
Job Desc	Manage a 100 person branch
Number of Vacancy	3
Public Date	Mon Mar 23 22:56:55 EDT 2020

Update a job

Job Id	<input type="text" value="1"/>
Job Code	<input type="text" value="j0001"/>
Job Name	<input type="text" value="Branch Manager"/>
Job Desc	<input type="text" value="Manage a 100 person brar"/>
No of Vacancy	<input type="text" value="3"/>
Public Date	<input type="text" value="03/23/2020"/>

Update a Job Information here

Succeed to Update a job 1.

Job Id	<input type="text" value="1"/>
Job Code	<input type="text" value="j0001"/>
Job Name	<input type="text" value="Branch Manager"/>
Job Desc	<input type="text" value="Manage a 100 person brar"/>
No of Vacancy	<input type="text" value="6"/>
Public Date	<input type="text" value="03/23/2020"/>
<input type="button" value="Update a Job Info"/>	

Delete a Job

localhost:8081 says
Do you really want to delete this job 6j0006:Sales?

Job Id	Job Code	Job Name	Number of Vacancy	Publish Date	Action
1	j0001	Branch Manager	6	2020-03-23T00:00:00.000+0000	<input type="button" value="Details"/> <input type="button" value="Edit"/> <input type="button" value="Delete"/>
2	j0002	VP	1	2020-03-24T02:56:55.060+0000	<input type="button" value="Details"/> <input type="button" value="Edit"/> <input type="button" value="Delete"/>
3	j0003	Financial product Manager	10	2020-03-24T02:56:55.060+0000	<input type="button" value="Details"/> <input type="button" value="Edit"/> <input type="button" value="Delete"/>
4	j0003	Financial product Manager	10	2020-03-24T02:56:55.060+0000	<input type="button" value="Details"/> <input type="button" value="Edit"/> <input type="button" value="Delete"/>
5	j0002	Software Developer	5	2020-03-24T02:56:55.060+0000	<input type="button" value="Details"/> <input type="button" value="Edit"/> <input type="button" value="Delete"/>
6	j0006	Sales	10	2020-03-23T00:00:00.000+0000	<input type="button" value="Details"/> <input type="button" value="Edit"/> <input type="button" value="Delete"/>

[Go to home](#)

Jobs List

Job Id	Job Code	Job Name	Number of Vacancy	Publish Date	Action
1	j0001	Branch Manager	6	2020-03-23T00:00:00.000+0000	Details Edit Delete
2	j0002	VP	1	2020-03-24T02:56:55.060+0000	Details Edit Delete
3	j0003	Financial product Manager	10	2020-03-24T02:56:55.060+0000	Details Edit Delete
4	j0003	Financial product Manager	10	2020-03-24T02:56:55.060+0000	Details Edit Delete
5	j0002	Software Developer	5	2020-03-24T02:56:55.060+0000	Details Edit Delete

[Go to home](#)

SWAGGER – REST API Testing

localhost:8081/swagger-ui.html#/organization-controller

swagger Select a spec default

Recruitment Agency App REST API ^{1.0.0}

[Base URL: localhost:8081/]
<http://localhost:8081/v2/api-docs>

Recruitment Agency Management REST API

[Liping Wu - Website](#)
[Send email to Liping Wu](#)
[Apache 2.0](#)

category-controller

Operations pertaining to Category in Recruitment Agency App

- GET /cats get all categories
- POST /cats create a new category
- GET /cats/{jobCatId} get category with certain id
- PUT /cats/{jobCatId} update a category with jobCatId
- DELETE /cats/{jobCatId} delete a category with jobCatId

job-controller

Operations pertaining to JOB in Recruitment Agency App

- GET /jobs get all jobs
- POST /jobs create a new job
- GET /jobs/{jobId} get job with certain id
- PUT /jobs/{jobId} update a job with jobId
- DELETE /jobs/{jobId} delete a job with jobId

organization-controller

Operations pertaining to Organization in Recruitment Agency App

GET

/orgs

get all orgs

POST

/orgs

create a new org

GET

/orgs/{orgId}

get organization with certain Id

PUT

/orgs/{orgId}

update an organization with orgId

DELETE

/orgs/{orgId}

delete a org with orgId

Models

Category

catCode

catDesc

catName

jobCatId

string

string

string

integer(\$int32)

Iterable«Category»

Iterable«Job»

Iterable«Organization»

Job

category

jobCode

jobDesc

jobId

jobName

numVacancy

organization

pubDate

Category

Organization

{...}

{...}

string

string

integer(\$int32)

string

integer(\$int32)

string(\$date-time)

Organization

address

email

orgId

orgName

phoneNo

postalCode

website

string

string

integer(\$int32)

string

string

string

string

About page

About the Recruitment Agency App

Key knowledge used:

- Spring Boot REST
- Thymeleaf layout
- Thymeleaf Bootstrap
- JQuery apply in Spring Boot Thymeleaf
- Apply Exception Handler in Spring Boot
- Swagger2 Apply in Spring Boot REST API

Main features:

- JOB REST API CRUD
- Category REST API CRUD
- Organization REST API CRUD
- JOB Web API CRUD

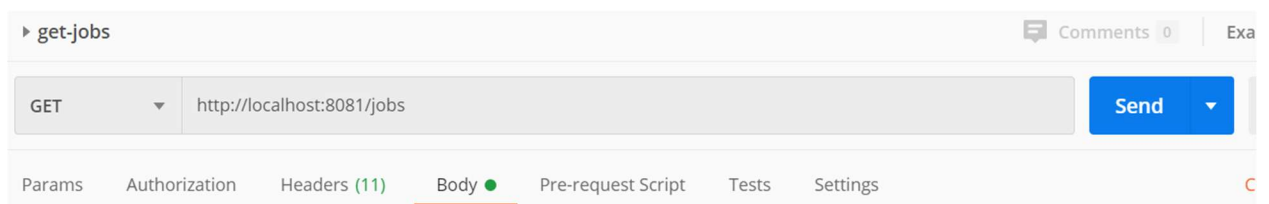
Resources :

- <https://www.thymeleaf.org/doc/articles/layouts.html>
- <https://www.roytuts.com/spring-boot-jquery-ajax-crud-example/>
- <https://mkyong.com/spring-boot/spring-boot-ajax-example/>
- <https://www.tutorialrepublic.com/jquery-tutorial/jquery-show-and-hide-effects.php>
- <https://medium.com/@grokwich/spring-boot-thymeleaf-html-form-handling-762ef0d51327>
- <https://dzone.com/articles/spring-boot-2-restful-api-documentation-with-swagger>

2. Postman Testing

2.1 JOBS

GET <http://localhost:8081/jobs>



```
Body Cookies Headers (5) Test Results Status: 200 OK Time: 8ms Size: 1.47 KB Save Response
Pretty Raw Preview Visualize JSON
1 [
2   {
3     "jobId": 1,
4     "jobCode": "j0001",
5     "jobName": "Branch Manager",
6     "jobDesc": "Manage a 100 person branch",
7     "pubDate": "2020-03-24T03:26:55.340+0000",
8     "numVacancy": 3,
9     "organization": null,
10    "category": null
11  },
12  {
13    "jobId": 2,
14    "jobCode": "j0002",
15    "jobName": "vp",
16    "jobDesc": "Manage the cloud software engineer department",
17    "pubDate": "2020-03-24T03:26:55.340+0000",
18    "numVacancy": 1,
19    "organization": null,
20    "category": null
21  },
22  {
```

GET <http://localhost:8081/jobs/6> which is not existing

GET A JOB INFO Comments 0 Examples 0

GET <http://localhost:8081/jobs/6> Send Save

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

none form-data x-www-form-urlencoded raw binary GraphQL JSON Beautify

1

Body Cookies Headers (5) Test Results Status: 404 Not Found Time: 15ms Size: 209 B Save Response

Pretty Raw Preview Visualize Text

1 Resource not found: Job id not found:6

GET <http://localhost:8081/jobs/1> which exists

GET A JOB INFO Comments 0 Examples 0

GET <http://localhost:8081/jobs/1> Send Save

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

none form-data x-www-form-urlencoded raw binary GraphQL JSON Beautify

1

```
Body Cookies Headers (5) Test Results Status: 200 OK Time: 8ms Size: 351 B Save Response ▾

Pretty Raw Preview Visualize JSON ▾

1 {
2   "jobId": 1,
3   "jobCode": "j0001",
4   "jobName": "Branch Manager",
5   "jobDesc": "Manage a 100 person branch",
6   "pubDate": "2020-03-24T03:26:55.340+0000",
7   "numVacancy": 3,
8   "organization": null,
9   "category": null
10 }
```

POST <http://localhost:8081/jobs>

Request:

```
post a job information Comments 0 Examples 0 ▾

POST http://localhost:8081/jobs Send Save

Params Authorization Headers (11) Body Pre-request Script Tests Settings Cookies Code

none form-data x-www-form-urlencoded raw binary GraphQL JSON Beautify

1 {
2   "jobId": 6,
3   "jobCode": "j0006",
4   "jobName": "Software Developer",
5   "jobDesc": "IT cloud software development and support",
6   "pubDate": "2020-03-24T03:26:55.341+0000",
7   "numVacancy": 5,
8   "organization": null,
9   "category": null
10 }
```

Response

```
Body Cookies Headers (5) Test Results Status: 201 Created Time: 10ms Size: 375 B Save Response ▾

Pretty Raw Preview Visualize JSON ▾

1 {
2   "jobId": 6,
3   "jobCode": "j0006",
4   "jobName": "Software Developer",
5   "jobDesc": "IT cloud software development and support",
6   "pubDate": "2020-03-24T03:26:55.341+0000",
7   "numVacancy": 5,
8   "organization": null,
9   "category": null
10 }
```

PUT <http://localhost:8081/jobs/6>

PUT <http://localhost:8081/jobs/6> Send Save

```
1 {
2   "jobId": 6,
3   "jobCode": "j0006",
4   "jobName": "Software Developer",
5   "jobDesc": "IT cloud software development and support",
6   "pubDate": "2020-03-24T03:26:55.341+0000",
7   "numVacancy": 5,
8   "organization": null,
9   "category": null
10 }
```

Body Cookies Headers (5) Test Results Status: 200 OK Time: 11ms Size: 370 B Save Response

Pretty Raw Preview Visualize JSON

```
1 {
2   "jobId": 6,
3   "jobCode": "j0006",
4   "jobName": "Software Developer",
5   "jobDesc": "IT cloud software development and support",
6   "pubDate": "2020-03-24T03:26:55.341+0000",
7   "numVacancy": 5,
8   "organization": null,
9   "category": null
10 }
```

DELETE <http://localhost:8081/jobs/6>

▶ Delete a job information Comments 0 Examples 0

DELETE <http://localhost:8081/jobs/6> Send Save

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

☐ none ☐ form-data ☐ x-www-form-urlencoded ☒ raw ☐ binary ☐ GraphQL JSON Beautify

```
1
```

Body Cookies Headers (3) Test Results Status: 204 No Content Time: 7ms Size: 112 B Save Response

Pretty Raw Preview Visualize Text

```
1
```

2.2 Category

GET <http://localhost:8081/cats>

The screenshot shows a REST client interface with a GET request to `http://localhost:8081/cats`. The response is a JSON array of three objects, each representing a category. The response is displayed in a 'Pretty' JSON format.

```
1 {
2   {
3     "jobCatId": 1,
4     "catCode": "c0001",
5     "catName": "Management",
6     "catDesc": "Management position"
7   },
8   {
9     "jobCatId": 2,
10    "catCode": "c0002",
11    "catName": "Market",
12    "catDesc": "Marketing, sales person position"
13  },
14  {
15    "jobCatId": 3,
16    "catCode": "c0003",
17    "catName": "Technical",
18    "catDesc": "professional technical position"
19  }
20 }
```

GET <http://localhost:8081/cats/1> which is existing

The screenshot shows a REST client interface with a GET request to `http://localhost:8081/cats/1`. The response is a JSON object representing the first category. The response is displayed in a 'Pretty' JSON format.

```
1 {
2   "jobCatId": 1,
3   "catCode": "c0001",
4   "catName": "Management",
5   "catDesc": "Management position"
6 }
```

Additional details visible in the interface include: Status: 200 OK, Time: 6ms, Size: 251 B, and a 'Save Response' button.

GET <http://localhost:8081/cats/1> which is NOT existing

GET <http://localhost:8081/cats/6> Send Save

Body Cookies Headers (5) Test Results Status: 404 Not Found Time: 8ms Size: 217 B Save Response

Pretty Raw Preview Visualize Text ⌵

```
1 Resource not found: job Cat Id id not found: 6
```

POST <http://localhost:8081/cats>

▶ GET all Category INFO Comments 0 Examples 0

POST <http://localhost:8081/cats> Send Save

Params Authorization Headers (11) Body ● Pre-request Script Tests Settings Cookies Code

☐ none ☐ form-data ☐ x-www-form-urlencoded ☒ raw ☐ binary ☐ GraphQL JSON Beautify

```
1 {  
2   "jobCatId": 4,  
3   "catCode": "c0004",  
4   "catName": "Management",  
5   "catDesc": "Management position"  
6 }
```

Body Cookies Headers (5) Test Results Status: 201 Created Time: 6ms Size: 256 B Save Response

Pretty Raw Preview Visualize JSON ⌵

```
1 {  
2   "jobCatId": 4,  
3   "catCode": "c0004",  
4   "catName": "Management",
```

PUT <http://localhost:8081/cats/4>

PUT a Category INFO

Comments 0 Examples 0

PUT <http://localhost:8081/cats/4> Send Save

Params Authorization Headers (11) Body Pre-request Script Tests Settings Cookies Code

none form-data x-www-form-urlencoded raw binary GraphQL JSON Beautify

```
1 {  
2   "jobCatId": 4,  
3   "catCode": "c0004",  
4   "catName": "Technical ",  
5   "catDesc": "Technical position"  
6 }
```

Body Cookies Headers (5) Test Results Status: 200 OK Time: 5ms Size: 251 B Save Response

Pretty Raw Preview Visualize JSON

```
1 {  
2   "jobCatId": 4,  
3   "catCode": "c0004",  
4   "catName": "Technical ",
```

DELETE <http://localhost:8081/cats/4>

DELETE Category INFO

Comments 0 Examples 0

DELETE <http://localhost:8081/cats/4> Send Save

Params Authorization Headers (11) Body Pre-request Script Tests Settings Cookies Code

none form-data x-www-form-urlencoded raw binary GraphQL JSON Beautify

```
1 {  
2   "jobCatId": 4,  
3   "catCode": "c0004",  
4   "catName": "Technical ",  
5   "catDesc": "Technical position"  
6 }
```

Body Cookies Headers (3) Test Results Status: 204 No Content Time: 7ms Size: 112 B Save Response

Pretty Raw Preview Visualize Text

```
1
```


2.3 ORGNIZATION

GET <http://localhost:8081/orgs>

GET <http://localhost:8081/orgs> Send Save

Body Cookies Headers (5) Test Results

Pretty Raw Preview Visualize JSON

```
1 {
2   {
3     "orgId": 1,
4     "orgName": "TD Bank",
5     "address": "320 Front St W",
6     "postalCode": "N1V3S8",
7     "phoneNo": "416-100-8888",
8     "email": "hr@td.com",
9     "website": "http://www.td.com"
10  },
11  {
12    "orgId": 2,
13    "orgName": "BMO",
14    "address": "88 King St ",
15    "postalCode": "B1V5Z9",
16    "phoneNo": "416-200-8888",
17    "email": "hr@bmo.com",
18    "website": "http://www.bmo.com"
19  },
20  {
21    "orgId": 3,
22    "orgName": "RBC Bank",
```

GET <http://localhost:8081/orgs/1>

GET <http://localhost:8081/orgs/1> Send Save

Body Cookies Headers (5) Test Results Status: 200 OK Time: 8ms Size: 319 B Save Response

Pretty Raw Preview Visualize JSON

```
1 {
2   "orgId": 1,
3   "orgName": "TD Bank",
4   "address": "320 Front St W",
5   "postalCode": "N1V3S8",
6   "phoneNo": "416-100-8888",
7   "email": "hr@td.com",
8   "website": "http://www.td.com"
9 }
```

POST <http://localhost:8081/orgs>

POST a new organization info

Comments 0 Examples 0

POST http://localhost:8081/orgs Send Save

Params Authorization Headers (11) Body Pre-request Script Tests Settings Cookies Code

none form-data x-www-form-urlencoded raw binary GraphQL JSON Beautify

```
1 {
2   "orgId": 4,
3   "orgName": "ING Bank",
4   "address": "898 Queen St ",
5   "postalCode": "N2V3S6",
6   "phoneNo": "416-400-8888",
7   "email": "hr@ING.com",
8   "website": "http://www.ING.com"
9 }
```

Body Cookies Headers (5) Test Results Status: 201 Created Time: 12ms Size: 326 B Save Response

Pretty Raw Preview Visualize JSON

```
1 {
2   "orgId": 4,
3   "orgName": "ING Bank",
4   "address": "898 Queen St ",
5   "postalCode": "N2V3S6",
6   "phoneNo": "416-400-8888",
7   "email": "hr@ING.com",
8   "website": "http://www.ING.com"
9 }
```

PUT http://localhost:8081/orgs/4

PUT an organization info

Comments 0 Examples 0

PUT http://localhost:8081/orgs/4 Send Save

Params Authorization Headers (11) Body Pre-request Script Tests Settings Cookies Code

none form-data x-www-form-urlencoded raw binary GraphQL JSON Beautify

```
1 {
2   "orgId": 4,
3   "orgName": "Tangerine Bank",
4   "address": "898 Queen St ",
5   "postalCode": "N2V3S6",
6   "phoneNo": "416-400-8888",
7   "email": "hr@Tangerine.com",
8   "website": "http://www.Tangerine.com"
9 }
```

DELETE http://localhost:8081/orgs/4

▶ DELETE an organization info

Comments 0

Examples 0 ▼

DELETE ▼

http://localhost:8081/orgs/4

Send ▼

Save ▼

Params

Authorization

Headers (9)

Body

Pre-request Script

Tests

Settings

Cookies

Code

☐ none

☐ form-data

☐ x-www-form-urlencoded

☒ raw

☐ binary

☐ GraphQL

JSON ▼

Beautify

1

Body

Cookies

Headers (3)

Test Results

Status: 204 No Content

Time: 8ms

Size: 112 B

Save Response ▼

Pretty

Raw

Preview

Visualize

Text ▼

1