

ENSF607 API Milestone Report

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Overview

This report intends to provide some explanations and demonstrate our API is capable of providing standard HTTP requests such as put, post & etc.. These demonstrations are shown through Postman.

A Postmen collection for corresponding APIs will be uploaded to github.

Demonstration

Manage Users

Users and Comment tables from sample data sheet are used for the “Manage Users” epic. The Comment table is renamed to Alert for providing alerts for users. They are programmed in the same way and therefore Users table will be shown as example runs here.

The APIs for “Manage User” has four methods implemented: get, post, put and delete.

Users: Get method

GET

Params ☒ Authorization Headers (8) Body ☒ Pre-request Script Tests Settings

Query Params

KEY	VALUE	DESCRIPTION	...	Bulk Edit
<input type="checkbox"/> Id	1			
Key	Value	Description		

Body Cookies Headers (5) Test Results

Pretty Raw Preview Visualize JSON

```
1 {
2   {
3     "name": "user 1",
4     "id": 1,
5     "type": "admin",
6     "activationDate": "2021-03-04",
7     "email": "admin@ucalgary.ca"
8   },
9   {
10    "name": "user2",
11    "id": 2,
12    "type": "animal technician",
13    "activationDate": "2021-03-04",
14    "email": "a.technician@ucalgary.ca"
15  },
16  {
17    "name": "user3",
18    "id": 3,
19    "type": "teacher",
20    "activationDate": "2021-04-05",
21    "email": "teacher@ucalgary.ca"
22  },
23  {
24    "name": "user4",
25    "id": 4,
26    "type": "student",
27    "activationDate": "2021-03-19",
```

Users: Post method

POST

Params Authorization Headers (8) Body ☒ Pre-request Script Tests Settings

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

```
1 {
2   "name": "user5",
3   "id": 5,
4   "type": "student",
5   "email": "student5@ucalgary.ca",
6   "activationDate": "2021-07-04"
7 }
```

Body Cookies Headers (5) Test Results

Pretty Raw Preview Visualize Text

```
1 Users[id='5', Name='user5', Type='student', Email='student5@ucalgary.ca', ActivationDate='2021-07-04'] will be added to the Users Table
```

Users: Put method

http://localhost:8080/vetapplication723/users/1

PUT http://localhost:8080/vetapplication723/users/1

Params Authorization Headers (8) Body Pre-request Script Tests Settings Cookies

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

```
1 {
2   "name": "user5",
3   "id": 5,
4   "type": "student",
5   "email": "student5@ucalgary.ca",
6   "activationDate": "2021-07-04"
7 }
```

Body Cookies Headers (5) Test Results Status: 200 OK Time: 6 ms Size: 308 B Save Response

Pretty Raw Preview Visualize Text

```
1 User at user Id = 1 will be replaced by: Users[Id='5', Name='user5', Type='student', Email='student5@ucalgary.ca', ActivationDate='2021-07-04']
```

Users: Delete method

DELETE http://localhost:8080/vetapplication723/users/1?id=1

Send

Params Authorization Headers (8) Body Pre-request Script Tests Settings Cookies

Query Params

KEY	VALUE	DESCRIPTION	...	Bulk Edit
<input checked="" type="checkbox"/> Id	1			
Key	Value	Description		

Body Cookies Headers (5) Test Results Status: 200 OK Time: 13 ms Size: 200 B Save Response

Pretty Raw Preview Visualize Text

```
1 User at user Id = 1 will be deleted.
```

Treatment

The epic of Treatment includes user stories of diagnose/prescribe animals, tracking injuries status for teaching, and alert users of animal diseases and problems.

The APIs for Treatment includes CommentController, PrescriptionRecordsController, TreatmentMethodController and MedicalRecordsTypeController.

1. Story of Diagnose/prescribe may be satisfied by APIs: MedicalRecordsTypeController TreatmentMethod Controller and PrescriptionRecordsController.
2. Story of tracking injuries status may be satisfied by APIs: MedicalRecordsTypeController
3. Story of Alert Users may be satisfied by: CommentController, please be noticed that this comment controller is solely used for alert.

The APIs are implemented using Spring Boot and based on MVC architecture. To test the performance of API, "Repository" is implemented in the form of List object to mimic databases. We acknowledge that a real database is completely different, and hence the APIs will be adjusted once a real database is constructed.

PrescriptionRecords, TreatmentMethod, MedicalRecords and Comment are implemented in a similar way. PrescriptionRecords is chosen to demonstrate GET, POST, PUT and DELETE operations in this report.

PrescriptionRecords: get

ENSF607_Postmen_Collection_Simon's / API_PrescriptionRecords_get

GET http://localhost:8080/api/Treatment_PrescriptionRecords

Params Authorization Headers (6) Body Pre-request Script Tests Settings Cookies

Query Params

KEY	VALUE	DESCRIPTION
-----	-------	-------------

Body Cookies Headers (5) Test Results Status: 200 OK Time: 12 ms Size: 542 B Save Response

Pretty Raw Preview Visualize JSON

```
3  {
4    "scriptRecord": 1,
5    "userId": 1,
6    "animalId": 1,
7    "date": "2021-01-01",
8    "instructions": "once dose per day",
9    "drugId": "ZTX2080",
10   "dosage": "1 ml",
11   "delivery_Method": "swallowing",
12   "drug_Name": "the Pill"
13 },
14 {
15   "scriptRecord": 2,
16   "userId": 2,
17   "animalId": 2,
18   "date": "2021-11-01",
19   "instructions": "once dose per week",
20   "drugId": "ZTX3080",
21   "dosage": "50 mg",
22   "delivery_Method": "inhalation",
23   "drug_Name": "the Spray"
24 }
```

Bootcamp Runner Trash

PrescriptionRecords: post

ENSF607_Postmen_Collection_Simon's / API_PrescriptionRecords_post

Save

...

POST

http://localhost:8080/api/Treatment_PrescriptionRecords

Send

Params

Authorization

Headers (8)

Body

Pre-request Script

Tests

Settings

Cookies

none

form-data

x-www-form-urlencoded

raw

binary

GraphQL

JSON

Beautify

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-----{
....."scriptRecord": 3,
....."userId": 3,
....."animalId": 3,
....."date": "2021-11-30",
....."instructions": "once dose per season",
....."drugId": "ZTX3090",
....."dosage": "10 mg",
....."delivery_Method": "absorption",
....."drug_Name": "the Liquid"
-----}

Body

Cookies

Headers (5)

Test Results

Status: 200 OK

Time: 90 ms

Size: 259 B

Save Response

Pretty

Raw

Preview

Visualize

Text

1

com.example.demo.treatmentProcess.model.PrescriptionRecords@21cbdd17has been successfully added

PrescriptionRecords: put

ENSF607_Postmen_Collection_Simon's / API_PrescriptionRecords_put

Save

PUT http://localhost:8080/api/Treatment_PrescriptionRecords

Send

Params Authorization Headers (8) Body Pre-request Script Tests Settings

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

Beautiful

1 {
2 "scriptRecord": 1,
3 "userId": 100,
4 "animalId": 100,
5 "date": "2010-11-30",
6 "instructions": "twice dose per season",
7 "drugId": "ZTX4090",
8 "dosage": "5 mg",
9 "delivery_Method": "swallowing",
10 "drug_Name": "the Liquid"
11 }

Body Cookies Headers (5) Test Results

Status: 200 OK Time: 12 ms Size: 256 B Save Response

Pretty Raw Preview Visualize Text

1 Successfully updated to com.example.demo.treatmentProcess.model.PrescriptionRecords@7a284fce

PrescriptionRecords: verify put and post

ENSF607_Postmen_Collection_Simon's / API_PrescriptionRecords_get

Save ...

GET http://localhost:8080/api/Treatment_PrescriptionRecords Send

Params Authorization Headers (6) Body Pre-request Script Tests Settings Cookies

Query Params

KEY	VALUE	DESCRIPTION	...	Bulk Edit
-----	-------	-------------	-----	-----------

ody Cookies Headers (5) Test Results Status: 200 OK Time: 11 ms Size: 745 B Save Response

Pretty Raw Preview Visualize JSON

```
1 {
2   "scriptRecord": 2,
3   "userId": 2,
4   "animalId": 2,
5   "date": "2021-11-01",
6   "instructions": "once dose per week",
7   "drugId": "ZTX3080",
8   "dosage": "50 mg",
9   "delivery_Method": "inhalation",
10  "drug_Name": "the Spray"
11 },
12 {
13   "scriptRecord": 3,
14   "userId": 3,
15   "animalId": 3,
16   "date": "2021-11-30",
17   "instructions": "once dose per season",
18   "drugId": "ZTX3090",
19   "dosage": "10 mg",
20   "delivery_Method": "absorption",
21   "drug_Name": "the Liquid"
22 },
23 {
24   "scriptRecord": 1,
25   "userId": 100,
26   "animalId": 100,
27   "date": "2010-11-30",
28   "instructions": "twice dose per season",
29   "drugId": "ZTX4090",
30   "dosage": "5 mg",
31   "delivery_Method": "swallowing",
32   "drug_Name": "the Liquid"
33 }
34 }
```


PrescriptionRecords: delete

ENSF607_Postmen_Collection_Simon's / API_PrescriptionRecords_del

Save

DELETEhttp://localhost:8080/api/Treatment_PrescriptionRecords/3Send

ParamsAuthorizationHeaders (6)BodyPre-request ScriptTestsSettingsCookies

none

form-data

x-www-form-urlencoded

raw

binary

GraphQL

This request does not have a body

BodyCookiesHeaders (5)Test Results

Status: 200 OKTime: 14 msSize: 241 BSave Response

PrettyRawPreviewVisualizeText

1 Deleted: com.example.demo.treatmentProcess.model.PrescriptionRecords@21cbdd17

PrescriptionRecords: get – verify delete

GET

http://localhost:8080/api/Treatment_PrescriptionRecords

Send

Params

Authorization

Headers (6)

Body

Pre-request Script

Tests

Settings

Cookies

Query Params

KEY	VALUE	DESCRIPTION	...	Bulk Edit
-----	-------	-------------	-----	-----------

Body

Cookies

Headers (5)

Test Results

Status: 200 OK

Time: 6 ms

Size: 552 B

Save Response

Pretty

Raw

Preview

Visualize

JSON

```
1  {
2    "scriptRecord": 2,
3    "userId": 2,
4    "animalId": 2,
5    "date": "2021-11-01",
6    "instructions": "once dose per week",
7    "drugId": "ZTX3000",
8    "dosage": "50 mg",
9    "delivery_Method": "inhalation",
10   "drug_Name": "the Spray"
11  },
12  {
13    "scriptRecord": 1,
14    "userId": 100,
15    "animalId": 100,
16    "date": "2010-11-30",
17    "instructions": "twice dose per season",
18    "drugId": "ZTX4090",
19    "dosage": "5 mg",
20    "delivery_Method": "swallowing",
21    "drug_Name": "the Liquid"
22  }
23  }
24  }
```

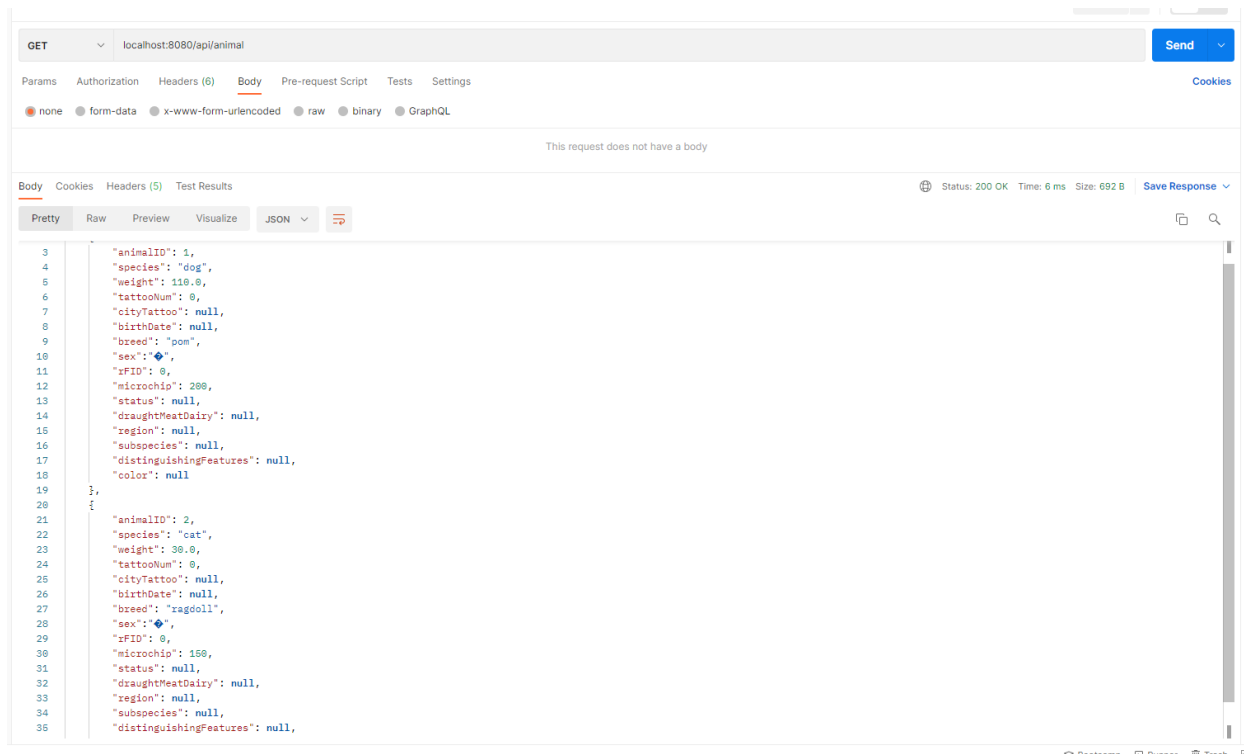
Animal Management

There are multiple endpoints related to Animals in this API, including:

- Animals
- Images
- AnimalStatus
- AnimalStatusImages
- ExamHistory

The GET, POST, PUT ,DELETE requests are implemented for each end point. Demonstrations are shown below for the /api/v1/animal endpoint:

animal:GET:



The screenshot shows a REST client interface with a GET request to `localhost:8080/api/animal`. The response is a JSON array of two animal objects. The first object is a dog with ID 1, and the second is a cat with ID 2. The status is 200 OK, time is 6 ms, and size is 692 B.

```
3  {
4    "animalID": 1,
5    "species": "dog",
6    "weight": 110.0,
7    "tattooNum": 0,
8    "cityTattoo": null,
9    "birthDate": null,
10   "breed": "pom",
11   "sex": "♀",
12   "xFID": 0,
13   "microchip": 200,
14   "status": null,
15   "draughtMeatDairy": null,
16   "region": null,
17   "subspecies": null,
18   "distinguishingFeatures": null,
19   "color": null
20 },
21 {
22   "animalID": 2,
23   "species": "cat",
24   "weight": 30.0,
25   "tattooNum": 0,
26   "cityTattoo": null,
27   "birthDate": null,
28   "breed": "ragdoll",
29   "sex": "♂",
30   "xFID": 0,
31   "microchip": 150,
32   "status": null,
33   "draughtMeatDairy": null,
34   "region": null,
35   "subspecies": null,
36   "distinguishingFeatures": null,
```

animal: PUT:

PUT localhost:8080/api/animal/2 Send

Params Authorization Headers (8) Body Pre-request Script Tests Settings Cookies

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

```
1 {"animalId": 1,
2  "species": "giraffe",
3  "breed": "unknown",
4  "sex": "F",
5  "status": "being tall"}
```

Body Cookies Headers (5) Test Results Status: 200 OK Time: 206 ms Size: 479 B Save Response

Pretty Raw Preview Visualize Text

```
1 The animal with animalID=2 will be updated to: Animal{animalID=0, species='giraffe', weight=0.0, tattooNum=0, cityTattoo='null', birthDate=null, breed='unknown', sex='F', xFIID=0, microchip=0, status='being tall', draughtMeatDairy='null', region='null', subspecies='null', distinguishingFeatures='null', color='null'}
```

animal: DELETE:

localhost:8080/api/animal/2 Save

DELETE localhost:8080/api/animal/2 Send

Params Authorization Headers (6) Body Pre-request Script Tests Settings Cookies

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

This request does not have a body

Body Cookies Headers (5) Test Results Status: 200 OK Time: 2.11 s Size: 207 B Save Response

Pretty Raw Preview Visualize Text

```
1 The animal with animalID=2 will be deleted.
```

animal:POST:

testCollection / New Request

POST

localhost:8080/api/animal

Send

Params

Authorization

Headers (8)

Body

Pre-request Script

Tests

Settings

● none

● form-data

● x-www-form-urlencoded

● raw

● binary

● GraphQL

JSON

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993

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996

997

998

999

1000

body

Cookies

Headers (5)

Test Results

●

Status: 200 OK

Time: 5 ms

Size: 205 B

Save Response

Pretty

Raw

Preview

Visualize

Text

1

Animal #5 has been added to the database.