

## Phase-end Project 3: To automate functionalities using <https://petstore.swagger.io/> REST API services

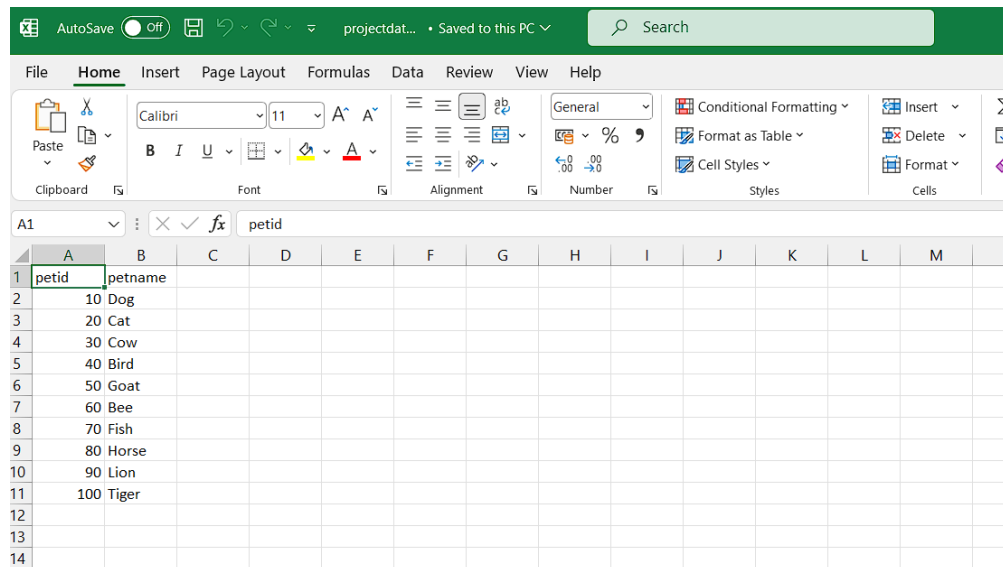
(Writeup):

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### Postman Assignment 001:

#### Create a petID and petName:

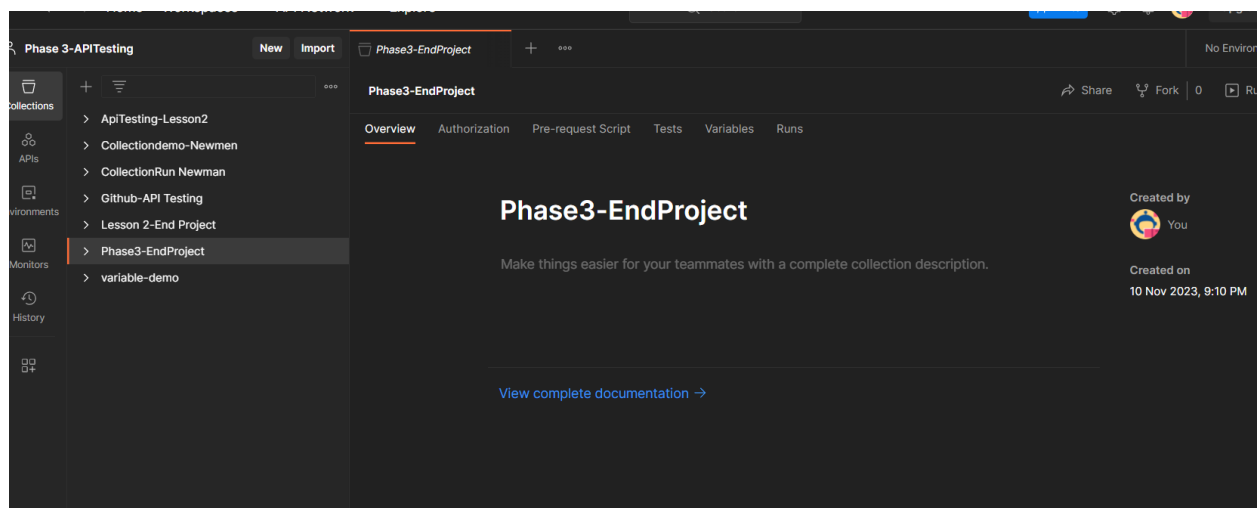
First, we have to create a excel sheet and enter petID and petName as shown below:



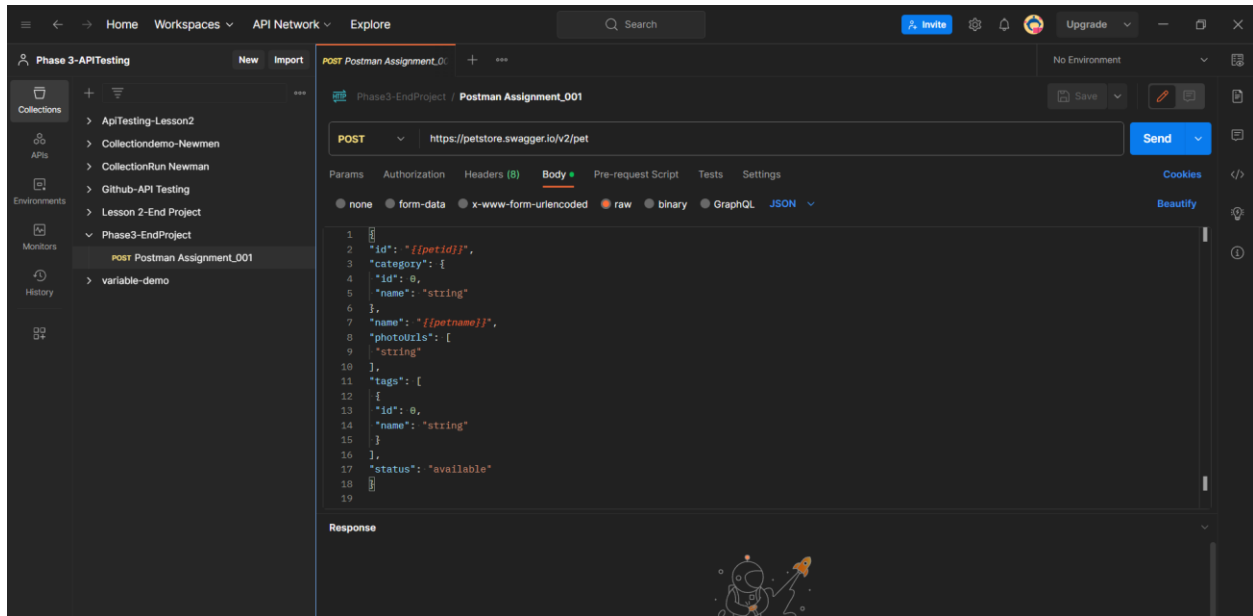
The screenshot shows an Excel spreadsheet with the following data:

	A	B	C	D	E	F	G	H	I	J	K	L	M	N
1	petid	petname												
2	10	Dog												
3	20	Cat												
4	30	Cow												
5	40	Bird												
6	50	Goat												
7	60	Bee												
8	70	Fish												
9	80	Horse												
10	90	Lion												
11	100	Tiger												
12														
13														
14														

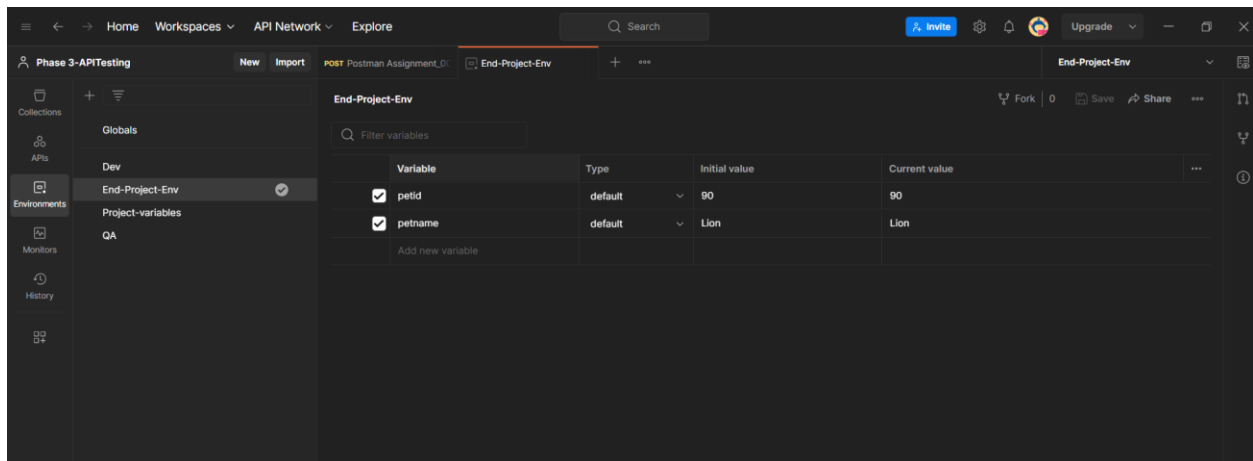
Then in next step we have to save the above file as .csv and after that open postman and create a collection with name Phase3-EndProject

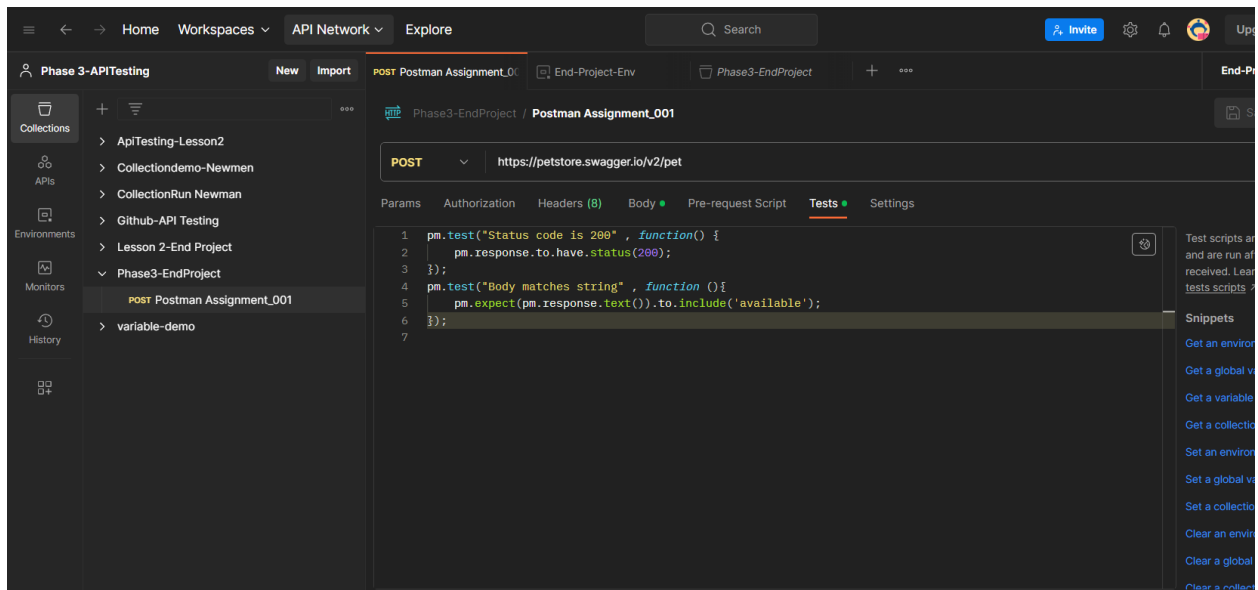


Then we have to Add request as shown below, However according to the Assignment\_001-Post we need to use URL as <https://petstore.swagger.io/v2/pet> and in the body part we have to go to Body -> raw -> JSON and paste the Body as below

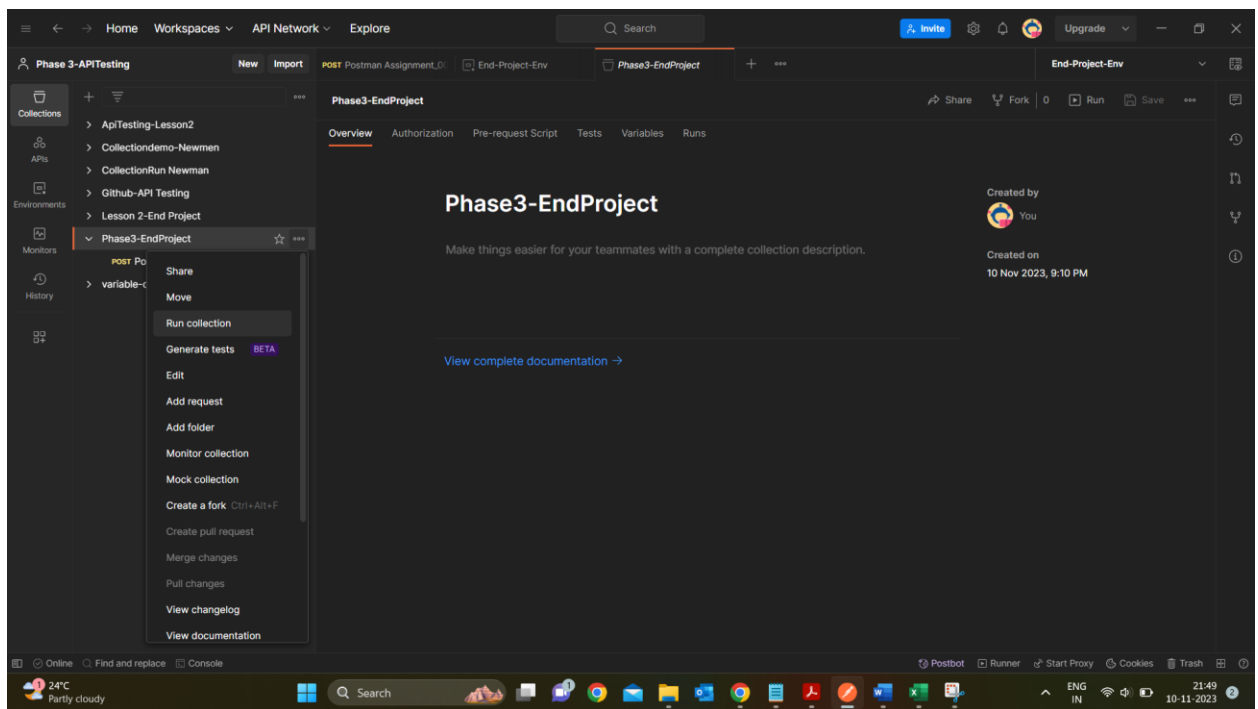


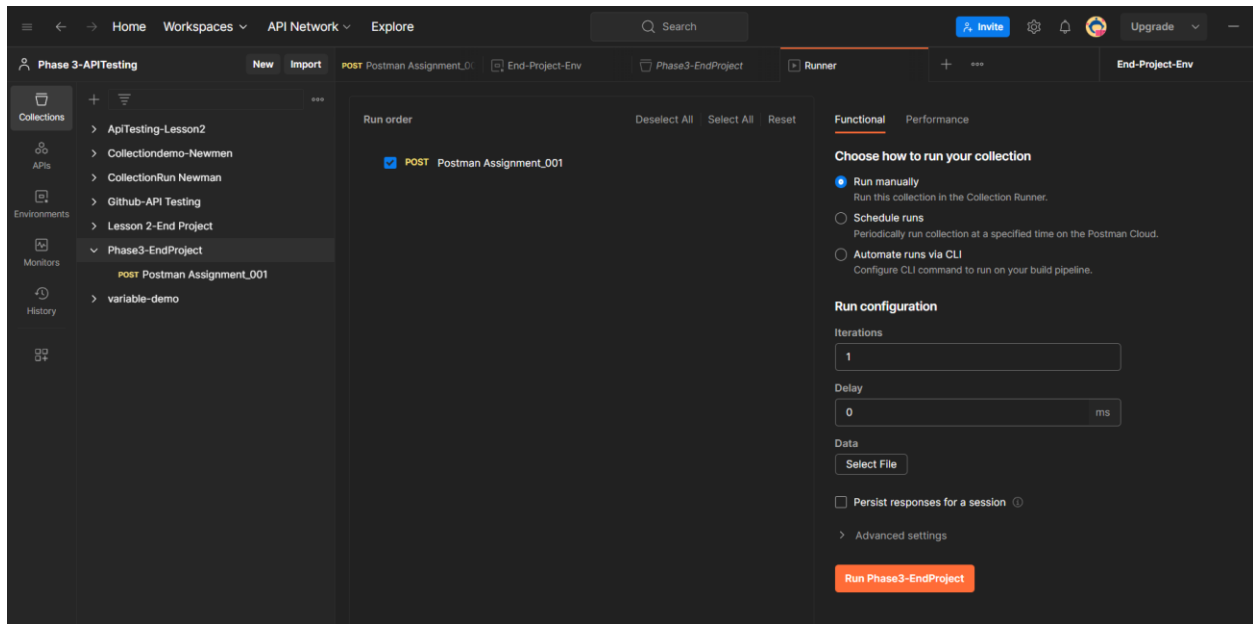
Then create an Environment with name End-Project-Env with two variables petid and petname as shown below



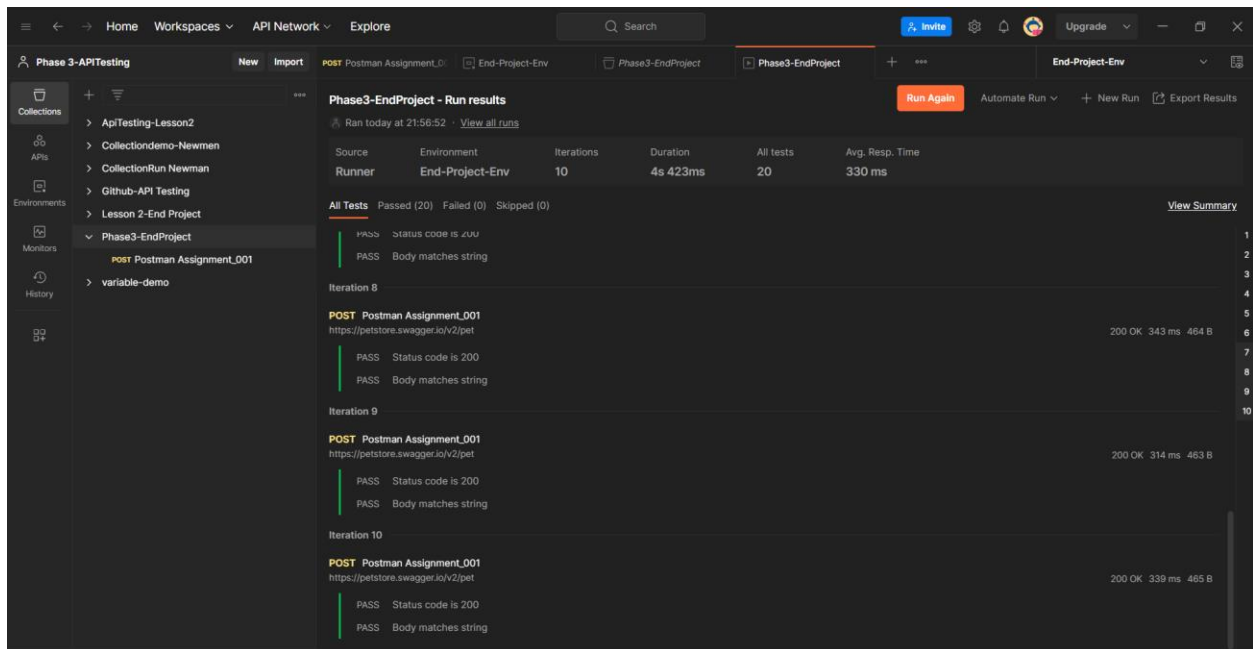


Then right click on collection (Phase3-EndProject) and click on Run Collection



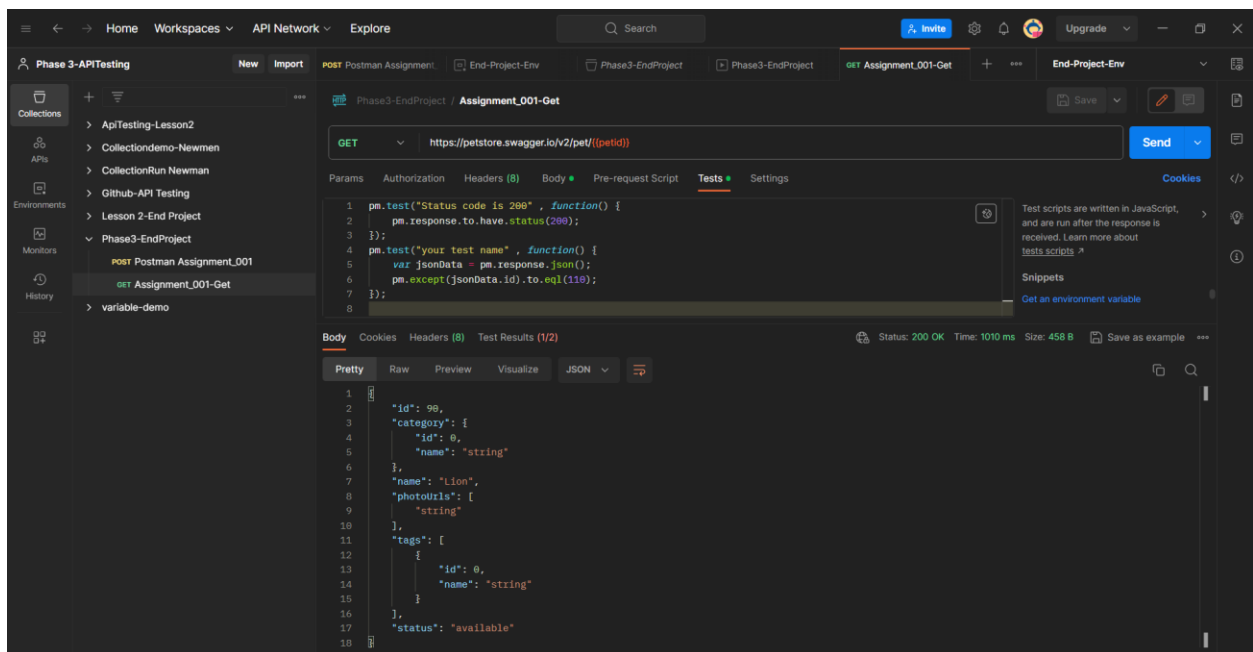
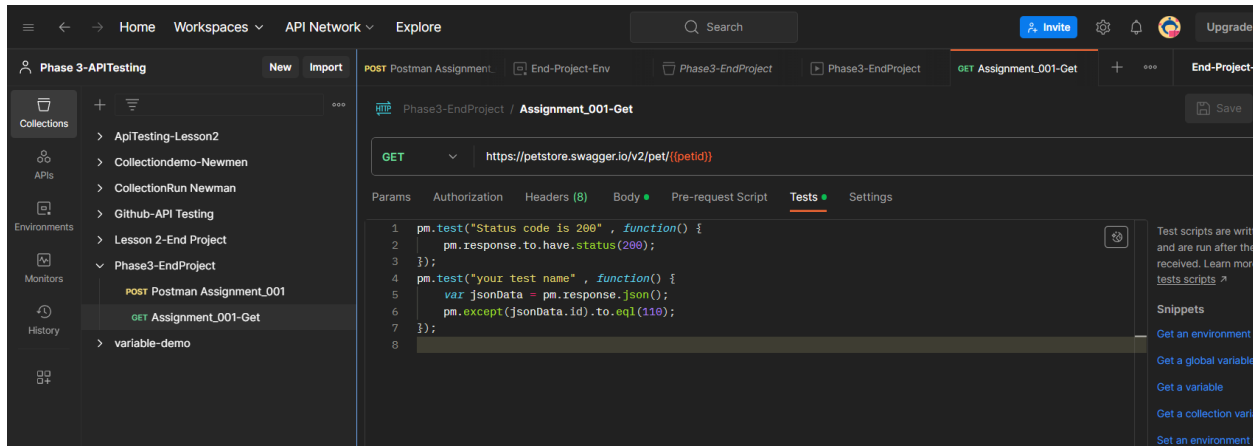
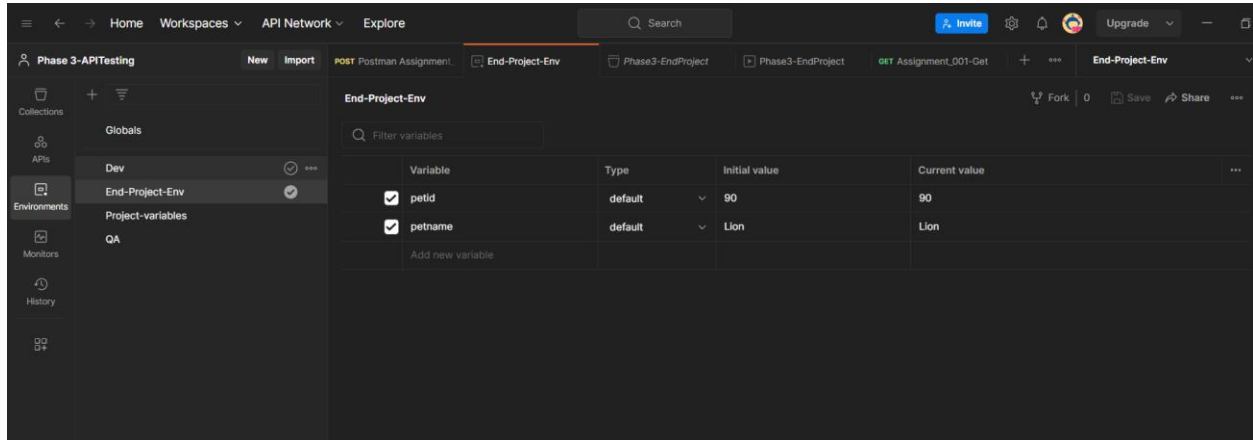


Above we have to click on select file and attach (projectdata.csv) then click on Run Phase 3-EndProject



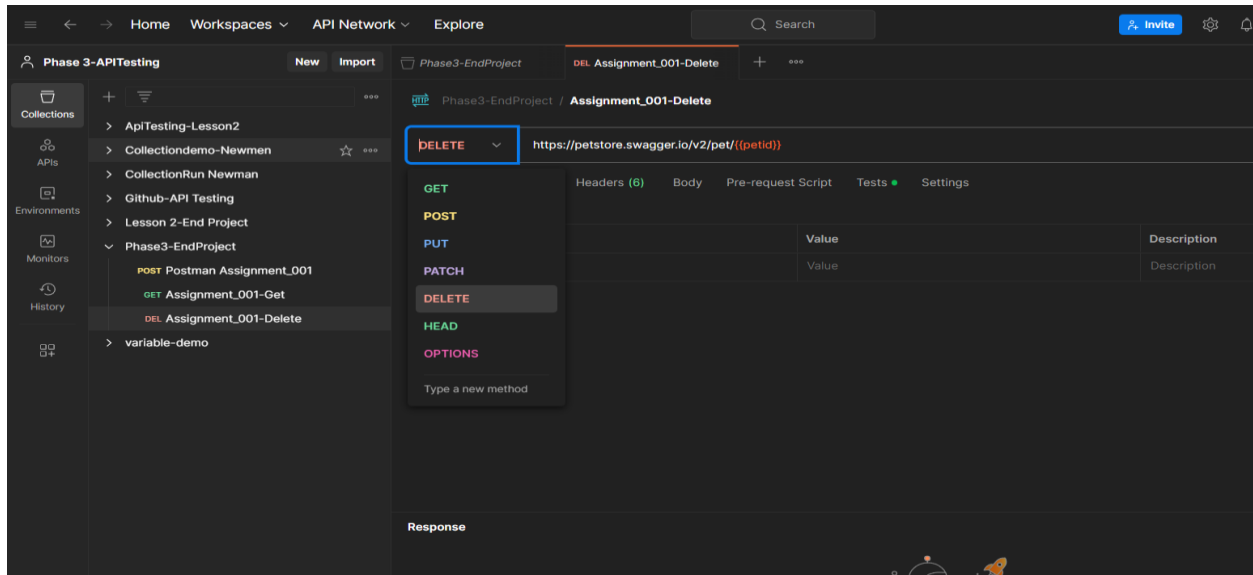
=====

## Validate petID: (Postman-Assignment001-get Method)

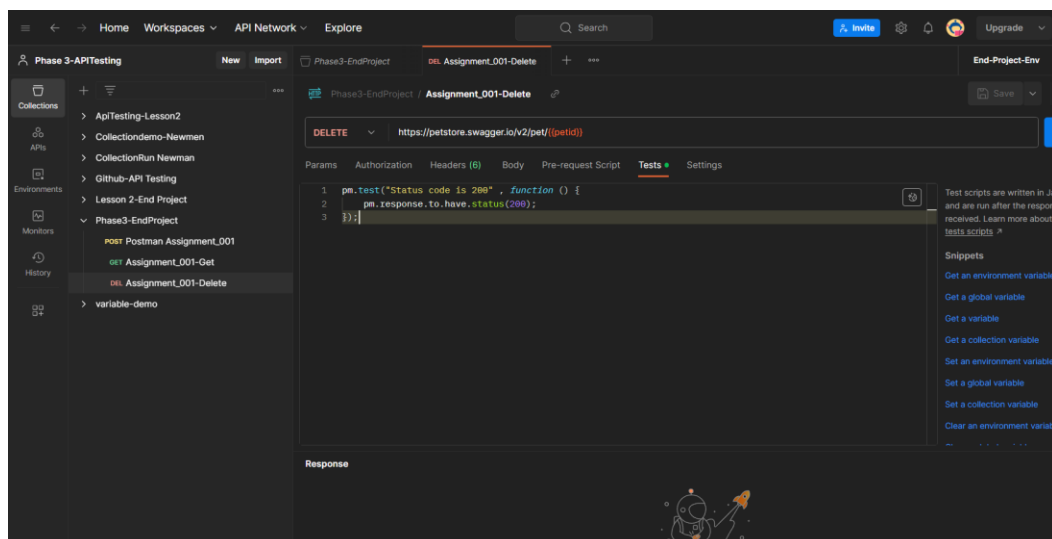
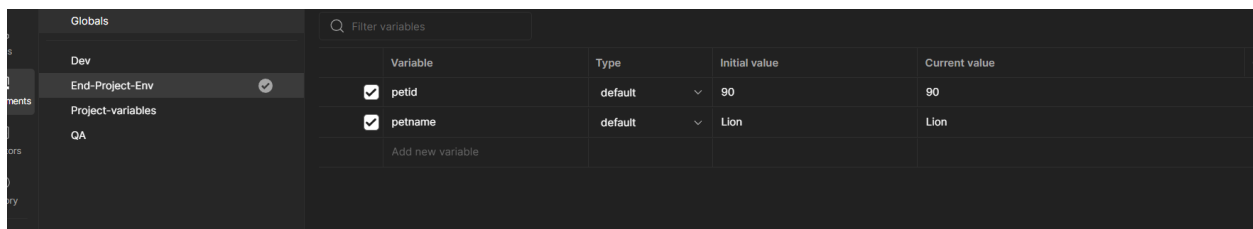


## Delete petID: (Postman-Assignment001-delete Method)

To Add delete Request we must Add the request and then click next to the URL and the select delete as shown below.



Then add the URL as given <https://petstore.swagger.io/v2/pet/{{petid}}>  
In this Environment part select End-Project-Env enter petid and petname



## Postman Assignment\_002:

Creating 3 test Environment as DEV, QA, PROD

The image displays three sequential screenshots of the Postman web interface, illustrating the process of creating three test environments: Dev, QA, and PROD.

**Top Screenshot (Dev Environment):** The 'Environments' panel on the left shows 'Dev' selected. The main panel displays the 'Dev' environment configuration with the following variables:

Variable	Type	Initial value	Current value
<input checked="" type="checkbox"/> Base_url	default		https://api.openweathermap.org/data/2.5/weather
<input checked="" type="checkbox"/> City	default		Pune
<input checked="" type="checkbox"/> reponame	default		Postman-API-786
<input checked="" type="checkbox"/> owner	default		DikshanshSh
<input checked="" type="checkbox"/> petid	default	90	90
<input checked="" type="checkbox"/> petname	default	Lion	Lion
Add new variable			

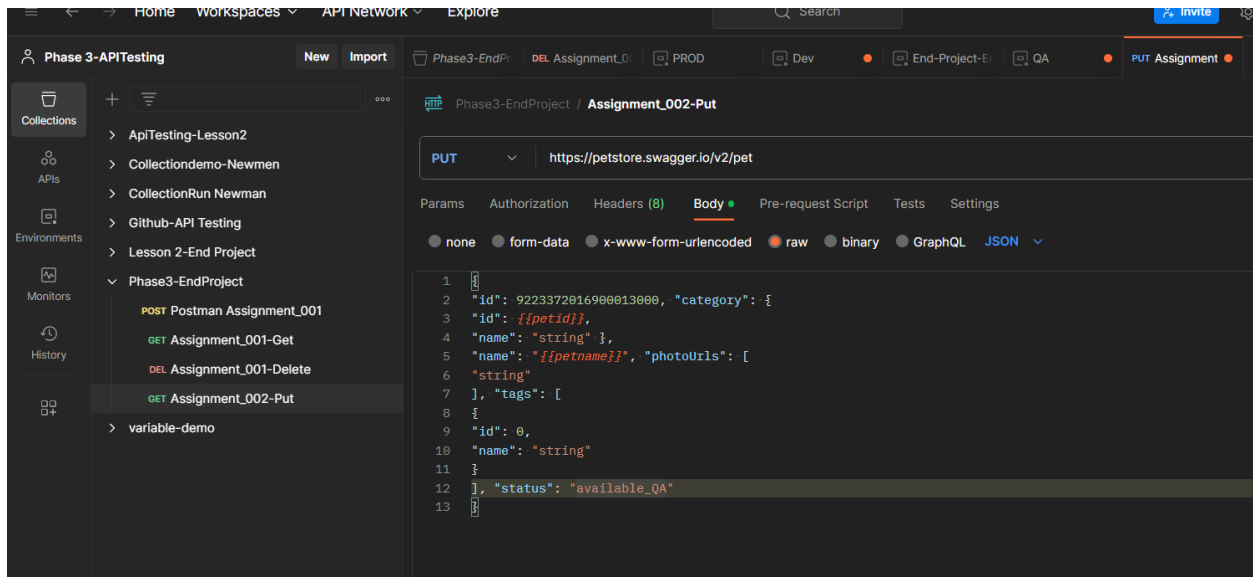
**Middle Screenshot (QA Environment):** The 'Environments' panel shows 'QA' selected. The main panel displays the 'QA' environment configuration with the following variables:

Variable	Type	Initial value	Current value
<input checked="" type="checkbox"/> City	default	delhi	delhi
<input checked="" type="checkbox"/> petid	default	90	90
<input checked="" type="checkbox"/> petname	default	Lion	Lion
Add new variable			

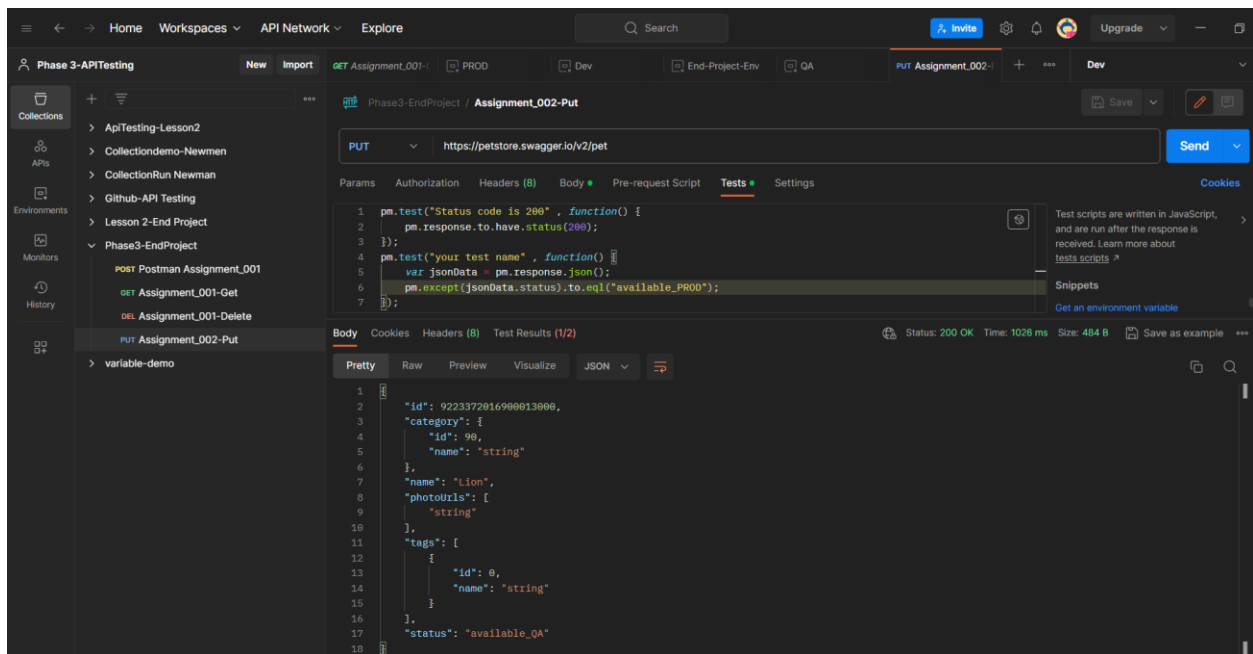
**Bottom Screenshot (PROD Environment):** The 'Environments' panel shows 'PROD' selected. The main panel displays the 'PROD' environment configuration with the following variables:

Variable	Type	Initial value	Current value
<input checked="" type="checkbox"/> envstatus	default	available_PROD	available_prod
<input checked="" type="checkbox"/> petid	default	90	90
<input checked="" type="checkbox"/> petname	default	Lion	Lion
Add new variable			

PUT Call request JSON body:



Response:

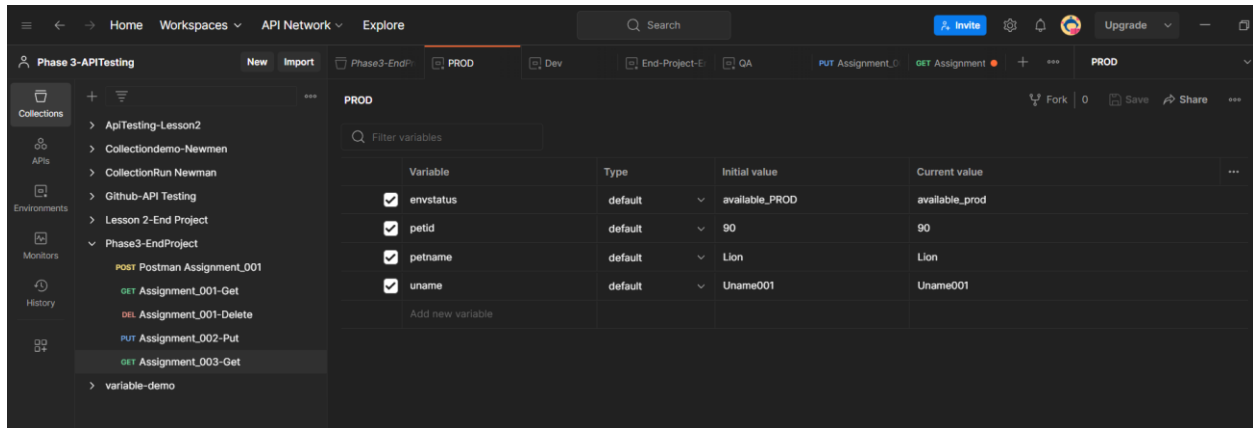


=====

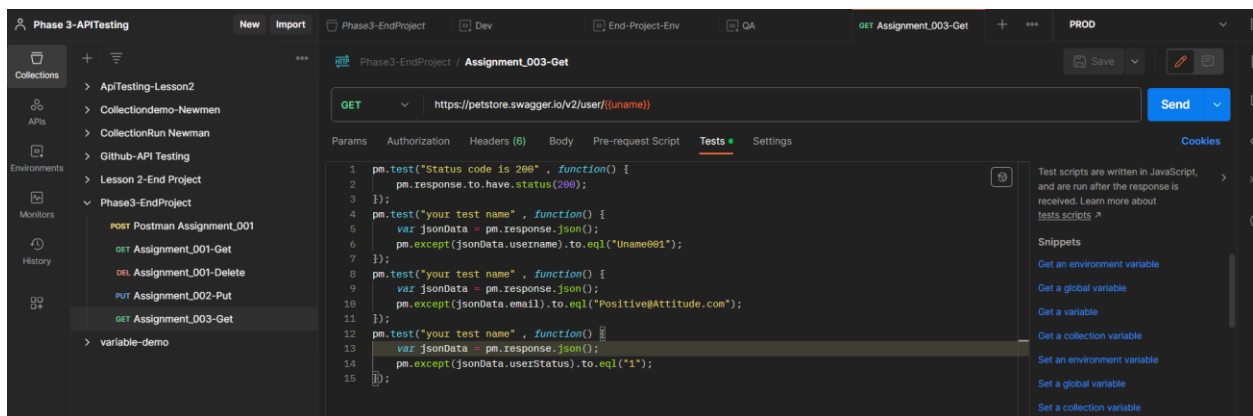
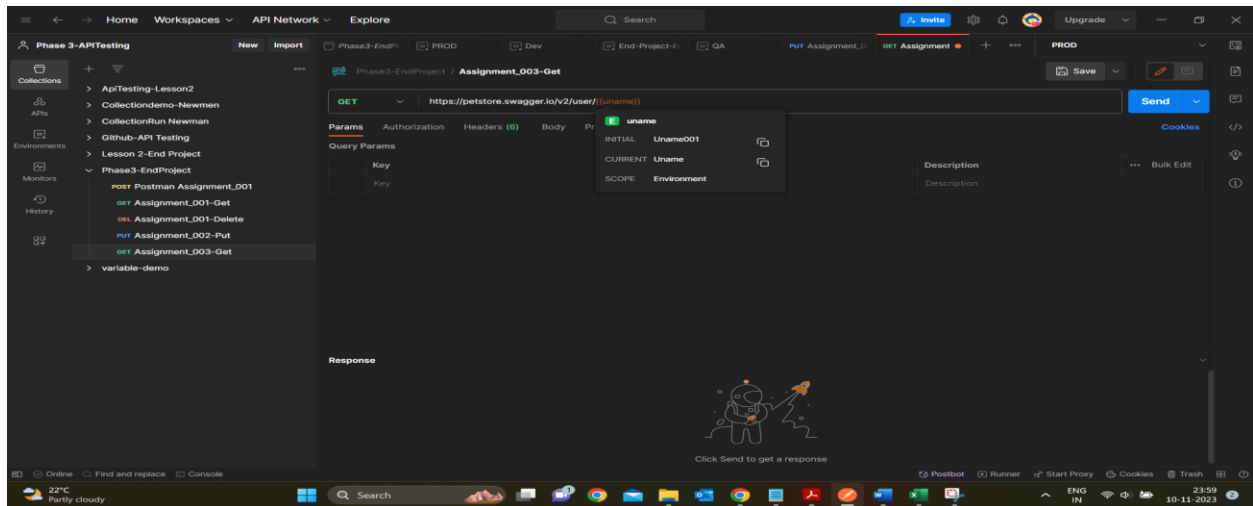


## Postman Assignment\_003:

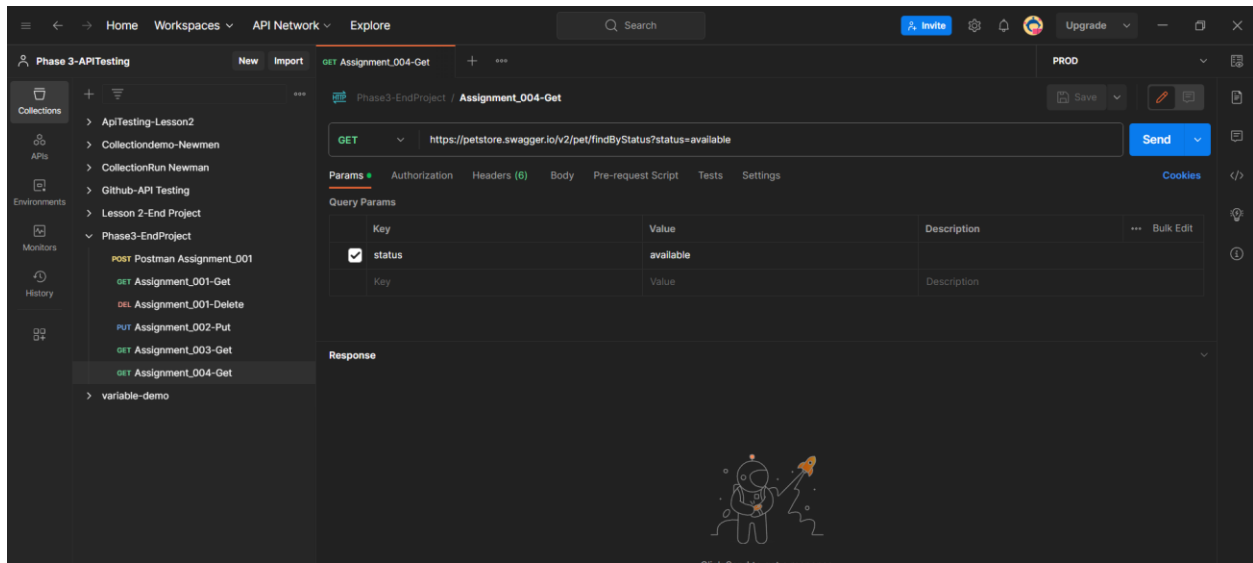
Creating a variable as uname with initial and current value as Uname001



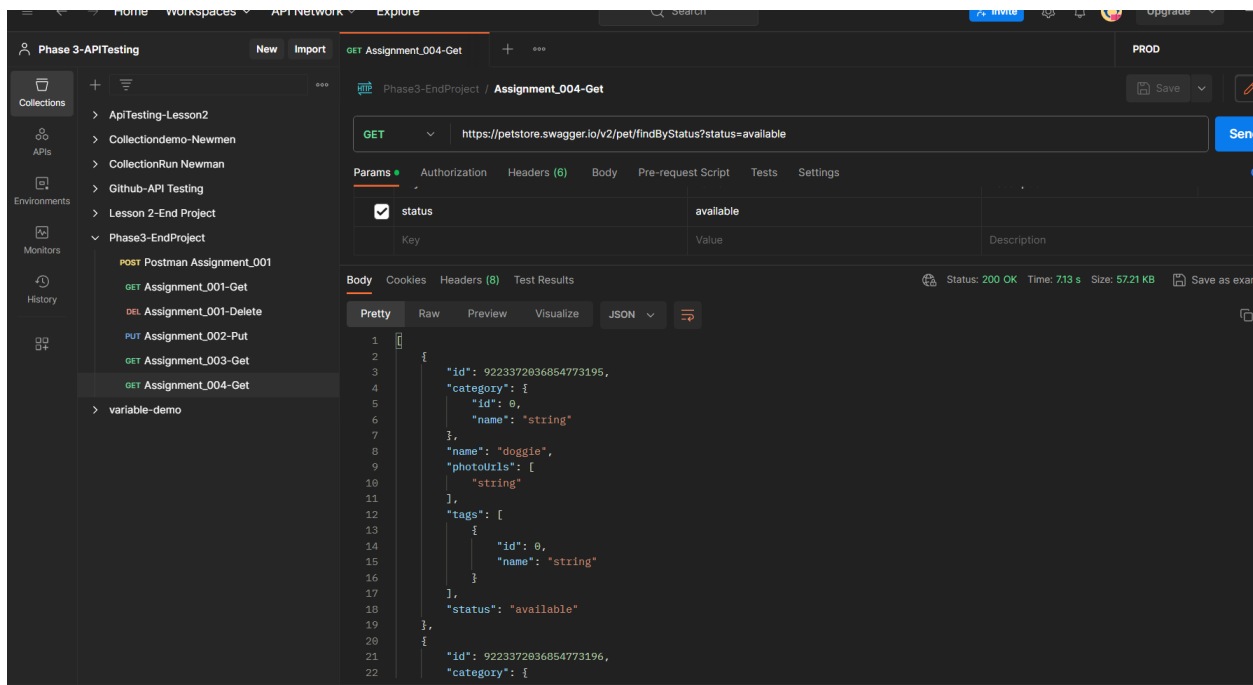
Fetching a GET call with URL: <https://petstore.swagger.io/v2/user/{{uname}}> as shown below



## Postman Assignment\_004:

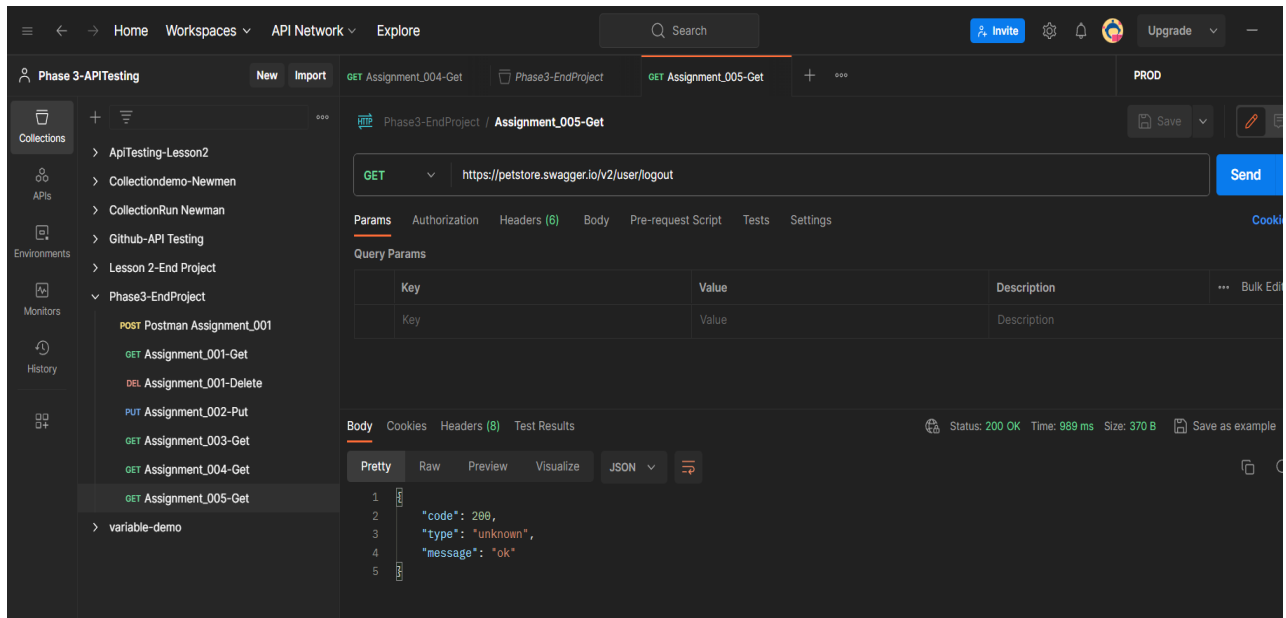


## Response:



=====

## Postman Assignment\_005:



## REST Assured Assignment\_001 :

Go to Eclipse -> create project RestAssured -> create a package with name Course\_EndProject -> Create a class Assignment1:

```
package Course_EndProject;
```

```
import java.io.File;
```

```
import org.apache.logging.log4j.LogManager;  
import org.apache.logging.log4j.Logger;  
import org.hamcrest.Matchers;  
import org.testng.annotations.Test;
```

```
import io.restassured.RestAssured;  
import io.restassured.http.ContentType;
```

```
public class Assignment1 {
```

```
    Logger logger = LogManager.getLogger(Assignment1.class);
```

```
    @Test(priority='1')  
    public void assignment1Post()  
    {  
        logger.info("Course_EndProject - Assignment1 - POST request");
```

```

        File file = new File("resources/datasheet.json");
        int id = RestAssured.given()
            .baseUrl("https://petstore.swagger.io/v2/pet")
            .contentType(ContentType.JSON)
            .body(file)
            .when().post()
            .then()
            .statusCode(200)
            .log().all()
            .body("name", Matchers.equalTo("cat")).extract().path("id");
        logger.trace("The status code is checked");

        System.out.println(id);
        logger.trace("Id has been captured and validated");

    }

    @Test(priority='2',dependsOnMethods="assignment1Post")
    public void assignment1Get()
    {
        logger.info("Course_EndProject - Assignment1 - GET request");
        int id = RestAssured.given()
            .baseUrl("https://petstore.swagger.io/v2/pet/452")
            .when()
            .get()
            .then()
            .statusCode(200)
            .log().all()
            .body("status", Matchers.equalTo("available")).extract().path("category.id");
        System.out.println(id); // 0
        logger.trace("Id and status has been captured and validated");
    }

    @Test(priority='3',dependsOnMethods="assignment1Get")
    public void assignment1Delete()
    {
        logger.info("Course_EndProject - Assignment1 - Delete request");
        RestAssured.given()
            .baseUrl("https://petstore.swagger.io/v2/pet/452")
            .when()
            .delete()
            .then()
            .statusCode(200)
            .log().all()
            .body("code", Matchers.equalTo(200))
            .body("type", Matchers.equalTo("unknown"))
            .body("message", Matchers.equalTo("452"))    }}

```

## Console Output:

```
eclipse-workspace - RearAssuredDemo/src/test/java/Course_EndProject/Assignment1.java - Eclipse IDE
File Edit Source Refactor Navigate Search Project Run Window Help
Problems Javadoc Declaration Console X Coverage Results of running class Assignment1 Gradle Tasks
...
terminated> Assignment1 [TestNG] C:\Program Files\Java\jdk-11\bin\javaw.exe (10-Nov-2023, 1:40:16 PM - 1:40:25 PM) [pid: 14852]
[RemoteTestNG] detected TestNG version 7.7.1
SLF4J: Failed to load class "org.slf4j.impl.StaticLoggerBinder".
SLF4J: Defaulting to no-operation (NOP) logger implementation
SLF4J: See http://www.slf4j.org/codes.html#StaticLoggerBinder for further details.
HTTP/1.1 200 OK
Date: Fri, 10 Nov 2023 08:10:23 GMT
Content-Type: application/json
Transfer-Encoding: chunked
Connection: keep-alive
Access-Control-Allow-Origin: *
Access-Control-Allow-Methods: GET, POST, DELETE, PUT
Access-Control-Allow-Headers: Content-Type, api_key, Authorization
Server: Jetty(9.2.9.v20150224)

{
  "id": 452,
  "category": {
    "id": 0,
    "name": "string"
  },
  "name": "cat",
  "photoUrls": [
    "string"
  ],
  "tags": [
    {
      "id": 0,
      "name": "string"
    }
  ],
  "status": "available"
}
452
HTTP/1.1 200 OK
Date: Fri, 10 Nov 2023 08:10:25 GMT
Content-Type: application/json
Transfer-Encoding: chunked
Connection: keep-alive
Access-Control-Allow-Origin: *
Access-Control-Allow-Methods: GET, POST, DELETE, PUT

{
  "id": 452,
  "category": {
    "id": 0,
    "name": "string"
  },
  "name": "cat",
  "photoUrls": [
    "string"
  ],
  "tags": [
    {
      "id": 0,
      "name": "string"
    }
  ],
  "status": "available"
}
0
HTTP/1.1 200 OK
Date: Fri, 10 Nov 2023 08:10:27 GMT
Content-Type: application/json
Transfer-Encoding: chunked
Connection: keep-alive
Access-Control-Allow-Origin: *
Access-Control-Allow-Methods: GET, POST, DELETE, PUT
Access-Control-Allow-Headers: Content-Type, api_key, Authorization
Server: Jetty(9.2.9.v20150224)

{
  "code": 200,
  "type": "unknown",
  "message": "452"
}
PASSED: Course_EndProject.Assignment1.assignment1Post
PASSED: Course_EndProject.Assignment1.assignment1Delete
PASSED: Course_EndProject.Assignment1.assignment1Get
=====
PASSED: Course_EndProject.Assignment1.assignment1Get
=====
Default test
Tests run: 3, Failures: 0, Skips: 0
=====
Default suite
Total tests run: 3, Passes: 3, Failures: 0, Skips: 0
=====
```

## REST Assured Assignment\_002 :

```
package Course_EndProject;

import java.io.File;

import org.apache.logging.log4j.LogManager;
import org.apache.logging.log4j.Logger;
import org.hamcrest.Matchers;
import org.testng.annotations.Test;

import io.restassured.RestAssured;
import io.restassured.http.ContentType;

public class Assignment2 {

    Logger logger = LogManager.getLogger(Assignment2.class);

    @Test(priority='1')
    public void assignment2Post()
    {
        logger.info("Course_EndProject - Assignment2 - POST request");
        File file = new File("resources/datasheet.json");
        int id = RestAssured.given()
            .baseUrl("https://petstore.swagger.io/v2/pet")
            .contentType(ContentType.JSON)
            .body(file)
            .when().post()
            .then()
            .statusCode(200)
            .log().all()
            .body("name", Matchers.equalTo("cat")).extract().path("id");
        logger.trace("The status code is checked");

        System.out.println(id);

        logger.trace("Id has been captured and validated");

    }

    @Test(priority='2', dependsOnMethods = "assignment2Post")
    public void assignment002Put()
    {
        File file = new File("resources/dataput.json");
        int id = RestAssured.given()
```

```

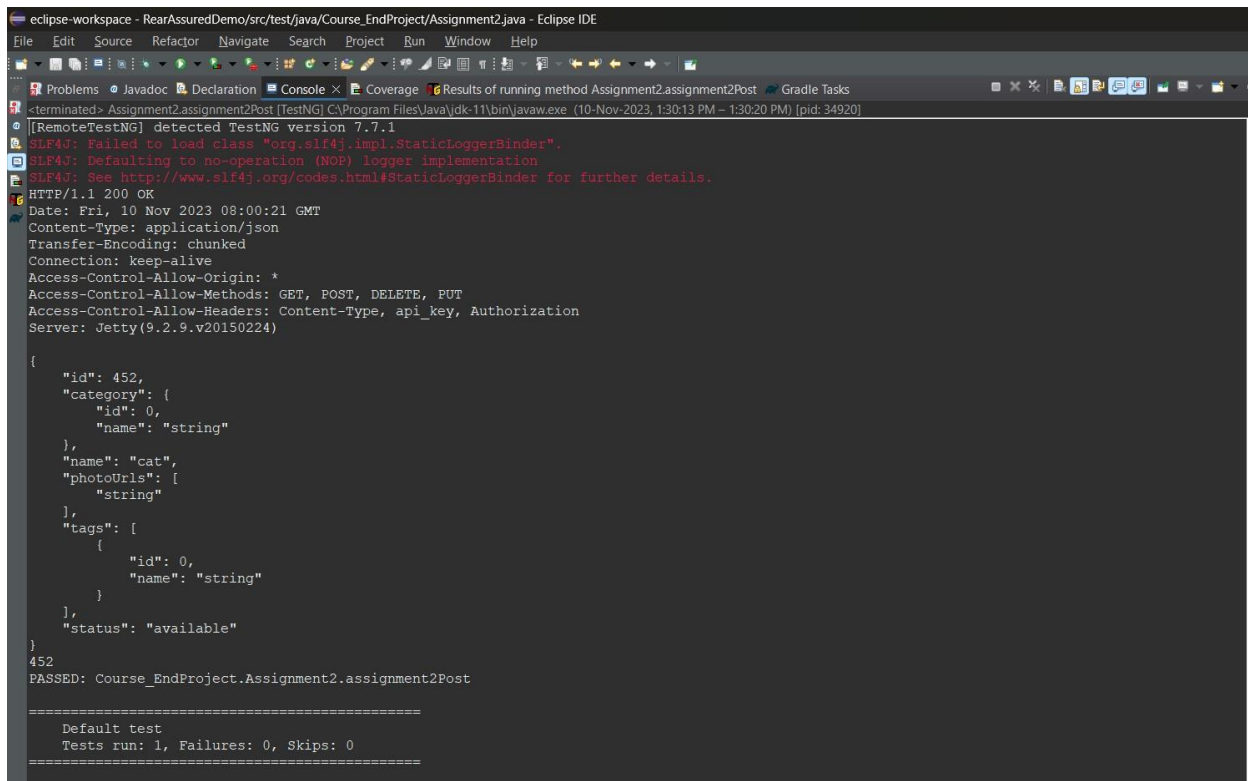
        .baseUrl("https://petstore.swagger.io/v2/pet/")
        .contentType(ContentType.JSON)
        .body(file)
        .when()
        .post()
        .then()
        .statusCode(200)
        .log().all()
        .body("status", Matchers.equalTo("available_QA")).extract().path("id");

        System.out.println(id);

    }
}

```

### Console Output:



```

eclipse-workspace - RearAssuredDemo/src/test/java/Course_EndProject/Assignment2.java - Eclipse IDE
File Edit Source Refactor Navigate Search Project Run Window Help
[RemoteTestNG] detected TestNG version 7.7.1
SLF4J: Failed to load class "org.slf4j.impl.StaticLoggerBinder".
SLF4J: Defaulting to no-operation (NOP) logger implementation
SLF4J: See http://www.slf4j.org/codes.html#StaticLoggerBinder for further details.
HTTP/1.1 200 OK
Date: Fri, 10 Nov 2023 08:00:21 GMT
Content-Type: application/json
Transfer-Encoding: chunked
Connection: keep-alive
Access-Control-Allow-Origin: *
Access-Control-Allow-Methods: GET, POST, DELETE, PUT
Access-Control-Allow-Headers: Content-Type, api_key, Authorization
Server: Jetty(9.2.9.v20150224)

{
  "id": 452,
  "category": {
    "id": 0,
    "name": "string"
  },
  "name": "cat",
  "photoUrls": [
    "string"
  ],
  "tags": [
    {
      "id": 0,
      "name": "string"
    }
  ],
  "status": "available"
}
452
PASSED: Course_EndProject.Assignment2.assignment2Post

=====
Default test
Tests run: 1, Failures: 0, Skips: 0
=====

```

=====

## Rest Assured Assignment\_003:

```
package Course_EndProject;

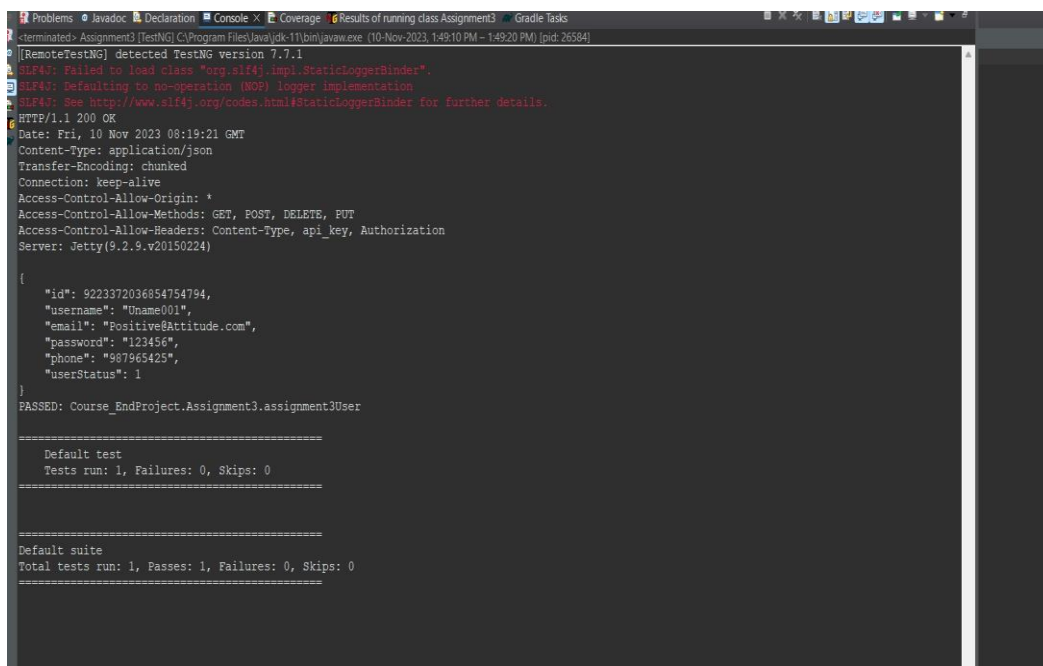
import org.hamcrest.Matchers;
import org.testng.annotations.Test;

import io.restassured.RestAssured;

public class Assignment3 {

    @Test
    public void assignment3User()
    {
        RestAssured.given()
            .baseUrl("https://petstore.swagger.io/v2/user/Uname001")
            .when()
            .get()
            .then()
            .statusCode(200)
            .log().all()
            .body("username", Matchers.equalTo("Uname001"))
            .body("email", Matchers.equalTo("Positive@Attitude.com"))
            .body("userStatus", Matchers.equalTo(1));
    }
}
```

### Console Output:



```
terminated> Assignment3 [TestNG] C:\Program Files\Java\jdk-11\bin\java.exe (10-Nov-2023, 1:49:10 PM - 1:49:20 PM) [pid: 26584]
[RemoteTestNG] detected TestNG version 7.7.1
SLF4J: Failed to load class "org.slf4j.impl.StaticLoggerBinder".
SLF4J: Defaulting to no-operation (NOP) logger implementation
SLF4J: See http://www.slf4j.org/codes.html#StaticLoggerBinder for further details.
HTTP/1.1 200 OK
Date: Fri, 10 Nov 2023 08:19:21 GMT
Content-Type: application/json
Transfer-Encoding: chunked
Connection: keep-alive
Access-Control-Allow-Origin: *
Access-Control-Allow-Methods: GET, POST, DELETE, PUT
Access-Control-Allow-Headers: Content-Type, api_key, Authorization
Server: Jetty(9.2.9.v20150224)

{
  "id": 9223372036854754794,
  "username": "Uname001",
  "email": "Positive@Attitude.com",
  "password": "123456",
  "phone": "987965425",
  "userStatus": 1
}
PASSED: Course_EndProject.Assignment3.assignment3User

=====
Default test
Tests run: 1, Failures: 0, Skips: 0
=====

Default suite
Total tests run: 1, Passes: 1, Failures: 0, Skips: 0
=====
```



## Rest Assured Assignment\_004:

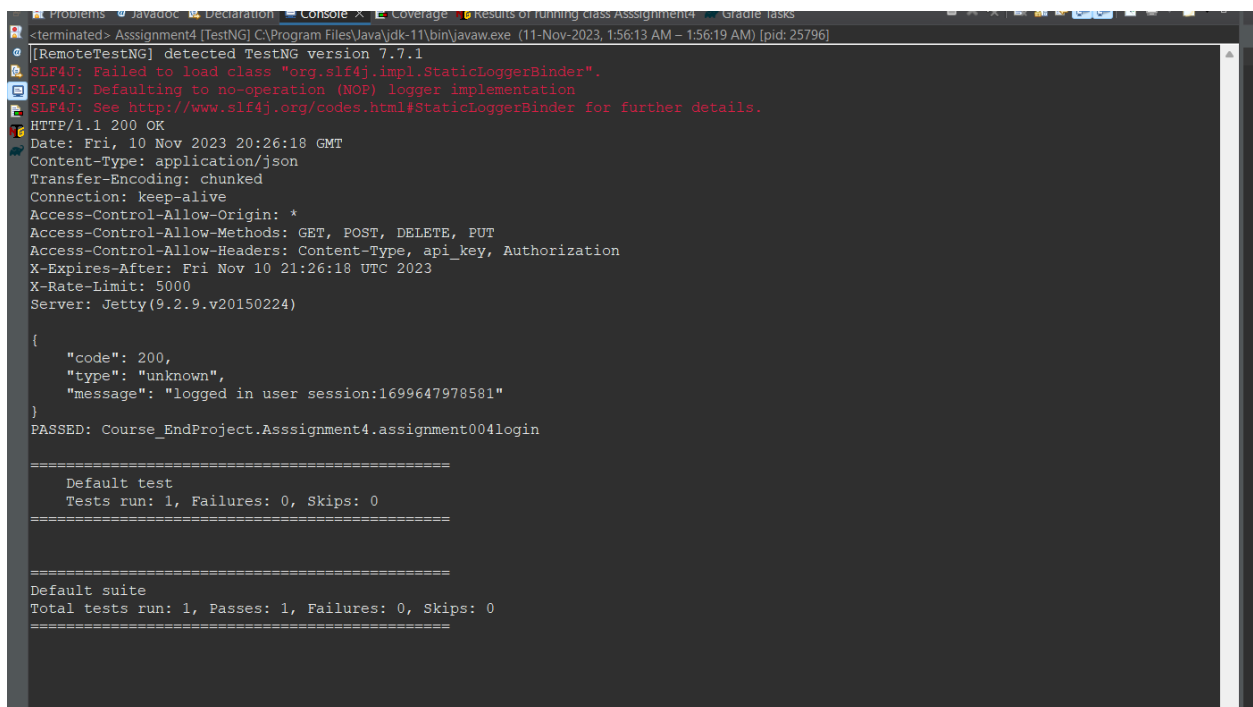
```
package Course_EndProject;

import org.hamcrest.Matchers;
import org.testng.annotations.Test;
import io.restassured.RestAssured;

public class Asssignment4 {

    @Test
    public void assignment004login()
    {
        RestAssured.given()
            .baseUri("https://petstore.swagger.io/v2/user/login")
            .auth().preemptive().basic("Uname001", "@tt!tude")
            .when()
            .get()
            .then()
            .statusCode(200)
            .log().all()
            .body("message", Matchers.anything("logged in user session"));
    }
}
```

Console Output:



```
<terminated> Assignment4 [TestNG] C:\Program Files\Java\jdk-11\bin\javaw.exe (11-Nov-2023, 1:56:13 AM - 1:56:19 AM) [pid: 25796]
[RemoteTestNG] detected TestNG version 7.7.1
SLF4J: Failed to load class "org.slf4j.impl.StaticLoggerBinder".
SLF4J: Defaulting to no-operation (NOP) logger implementation
SLF4J: See http://www.slf4j.org/codes.html#StaticLoggerBinder for further details.
HTTP/1.1 200 OK
Date: Fri, 10 Nov 2023 20:26:18 GMT
Content-Type: application/json
Transfer-Encoding: chunked
Connection: keep-alive
Access-Control-Allow-Origin: *
Access-Control-Allow-Methods: GET, POST, DELETE, PUT
Access-Control-Allow-Headers: Content-Type, api_key, Authorization
X-Expires-After: Fri Nov 10 21:26:18 UTC 2023
X-Rate-Limit: 5000
Server: Jetty(9.2.9.v20150224)

{
  "code": 200,
  "type": "unknown",
  "message": "logged in user session:1699647978581"
}
PASSED: Course_EndProject.Asssignment4.assignment004login

=====
Default test
Tests run: 1, Failures: 0, Skips: 0
=====

=====
Default suite
Total tests run: 1, Passes: 1, Failures: 0, Skips: 0
=====
```

## Rest Assured Assignment\_005:

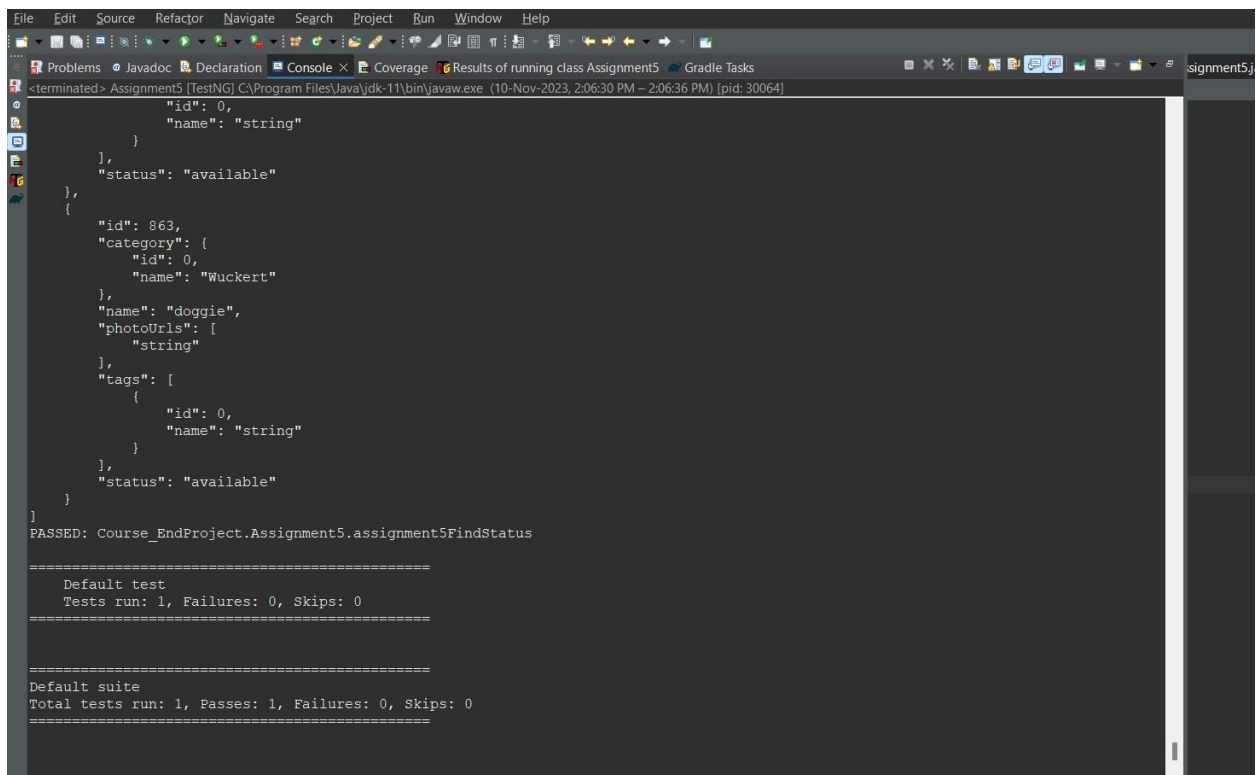
```
package Course_EndProject;

import org.testng.annotations.Test;
import io.restassured.RestAssured;

public class Assignment5 {

    @Test
    public void assignment5FindStatus()
    {
        RestAssured.given()
            .baseUrl("https://petstore.swagger.io/v2/pet/findByStatus")
            .queryParams("status", "available")
            .queryParams("status", "pending")
            .queryParams("status", "sold")
            .when()
            .get()
            .then()
            .statusCode(200)
            .log().all();
    }
}
```

Console Output:



```
File Edit Source Refactor Navigate Search Project Run Window Help
...
Problems Javadoc Declaration Console x Coverage Results of running class Assignment5 Gradle Tasks
<terminated> Assignment5 [TestNG] C:\Program Files\Java\jdk-11\bin\javaw.exe (10-Nov-2023, 2:06:30 PM) [pid: 30064]

    "id": 0,
    "name": "string"
  }
},
"status": "available"
},
{
  "id": 863,
  "category": {
    "id": 0,
    "name": "Wuckert"
  },
  "name": "doggie",
  "photoUrls": [
    "string"
  ],
  "tags": [
    {
      "id": 0,
      "name": "string"
    }
  ],
  "status": "available"
}
]
PASSED: Course_EndProject.Assignment5.assignment5FindStatus

=====
Default test
Tests run: 1, Failures: 0, Skips: 0
=====

=====
Default suite
Total tests run: 1, Passes: 1, Failures: 0, Skips: 0
=====
```

## Rest Assured Assignment\_006:

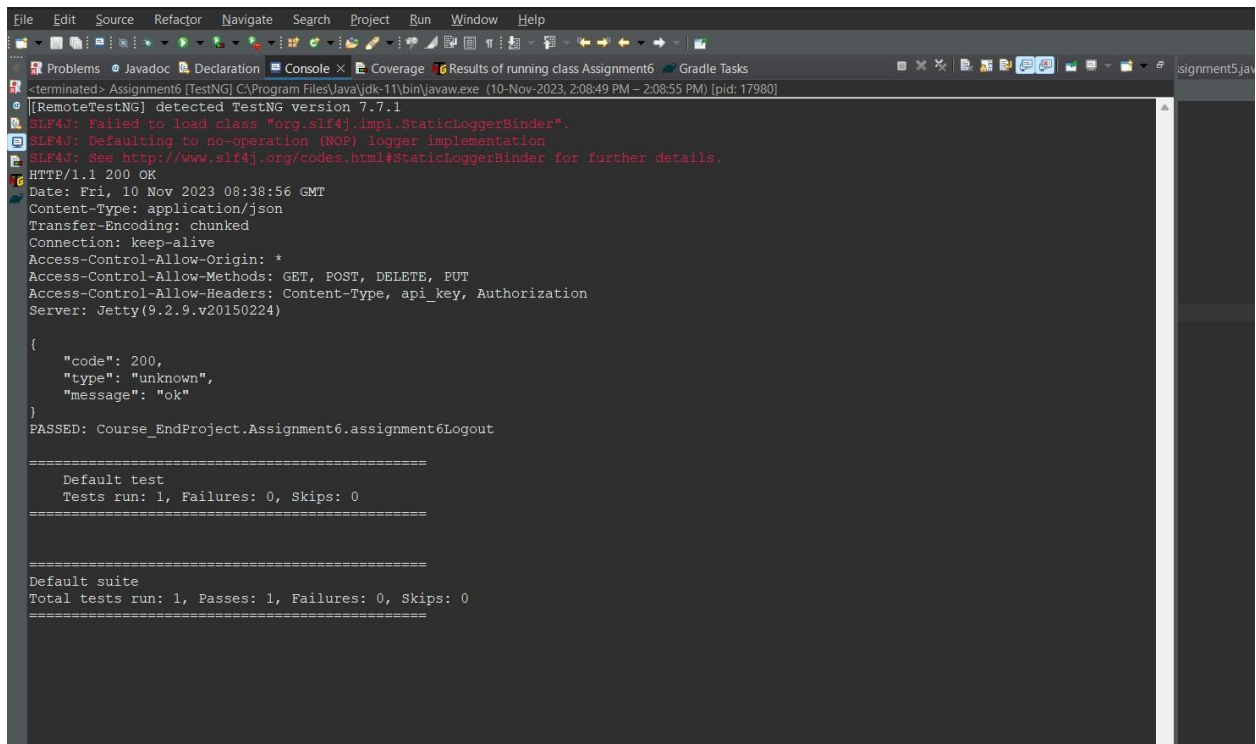
```
package Course_EndProject;

import org.hamcrest.Matchers;
import org.testng.annotations.Test;
import io.restassured.RestAssured;

public class Assignment6 {

    @Test
    public void assignment6Logout()
    {
        RestAssured.given()
            .baseUrl("https://petstore.swagger.io/v2/user/logout")
            .when()
            .get()
            .then()
            .statusCode(200)
            .log().all()
            .body("code", Matchers.equalTo(200))
            .body("type", Matchers.equalTo("unknown"))
            .body("message", Matchers.equalTo("ok"));
    }
}
```

Console Output:



```
File Edit Source Refactor Navigate Search Project Run Window Help
... Problems Javadoc Declaration Console X Coverage Results of running class Assignment6 Gradle Tasks
<terminated> Assignment6 [TestNG] C:\Program Files\Java\jdk-11\bin\javaw.exe (10-Nov-2023, 2:08:49 PM - 2:08:55 PM) [pid: 17980]
[RemoteTestNG] detected TestNG version 7.7.1
SLF4J: Failed to load class "org.slf4j.impl.StaticLoggerBinder".
SLF4J: Defaulting to no-operation (NOP) logger implementation
SLF4J: See http://www.slf4j.org/codes.html#StaticLoggerBinder for further details.
HTTP/1.1 200 OK
Date: Fri, 10 Nov 2023 08:38:56 GMT
Content-Type: application/json
Transfer-Encoding: chunked
Connection: keep-alive
Access-Control-Allow-Origin: *
Access-Control-Allow-Methods: GET, POST, DELETE, PUT
Access-Control-Allow-Headers: Content-Type, api_key, Authorization
Server: Jetty(9.2.9.v20150224)

{
  "code": 200,
  "type": "unknown",
  "message": "ok"
}
PASSED: Course_EndProject.Assignment6.assignment6Logout

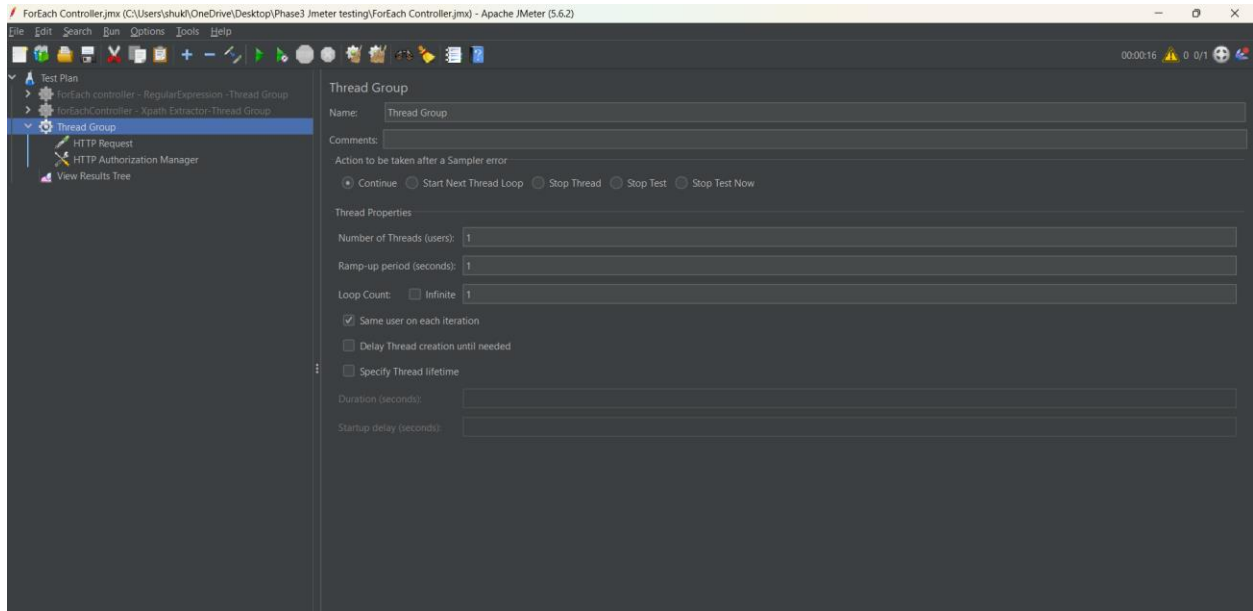
=====
Default test
Tests run: 1, Failures: 0, Skips: 0
=====

Default suite
Total tests run: 1, Passes: 1, Failures: 0, Skips: 0
=====
```

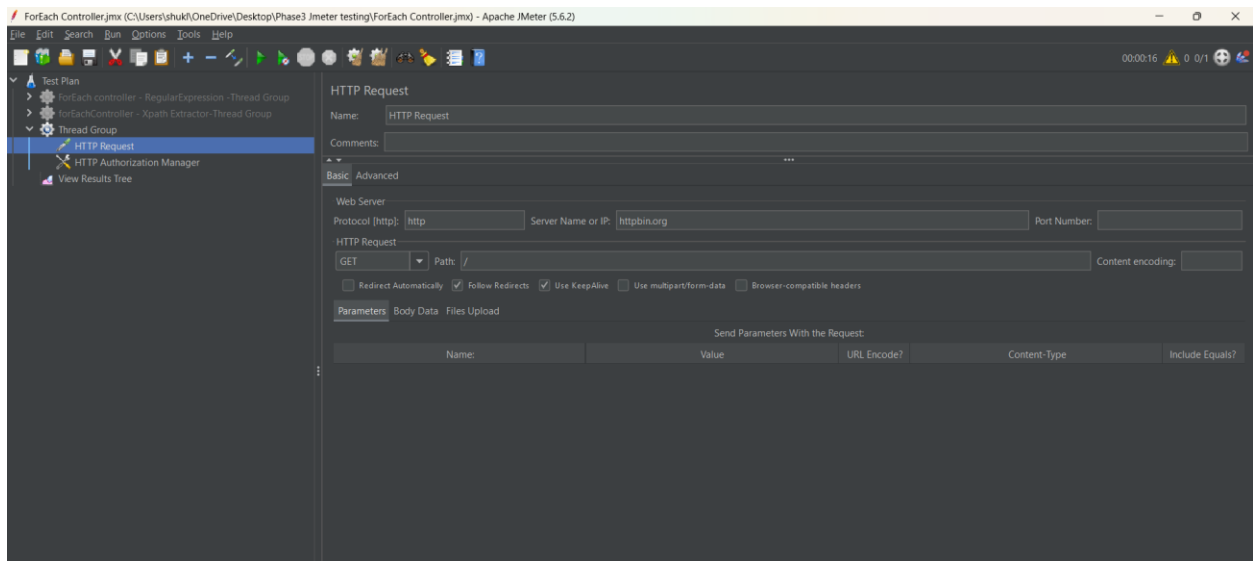
## Jmeter Assignment:

- Validate <https://httpbin.org/basic-auth/user/passwd> link using HTTP Authentication manager
- Default username is **user**, and the default password is **passwd**

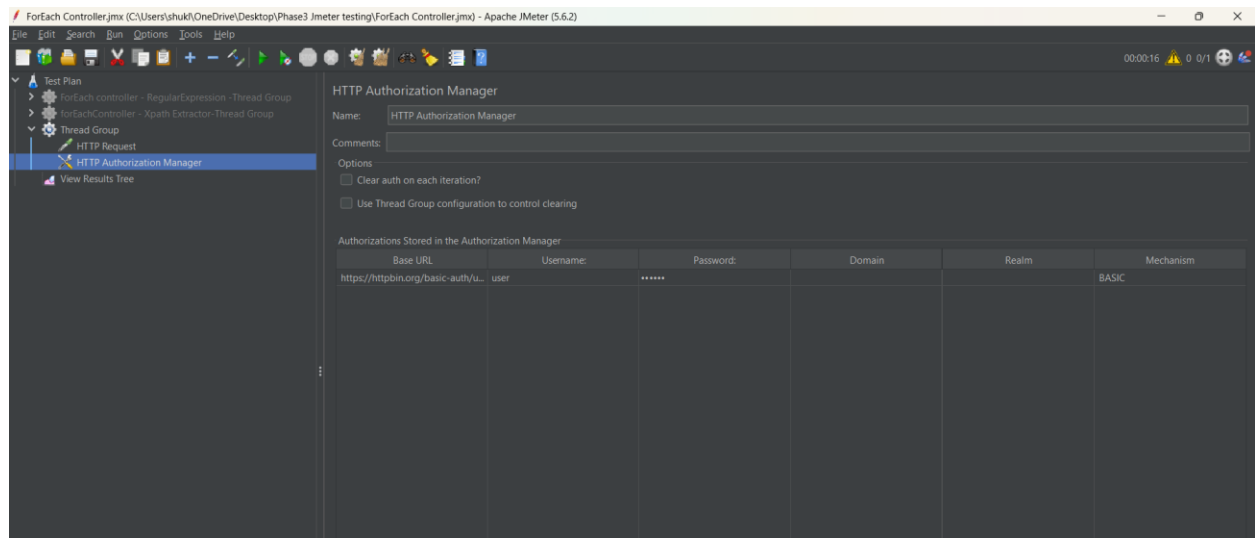
### Add Thread Group



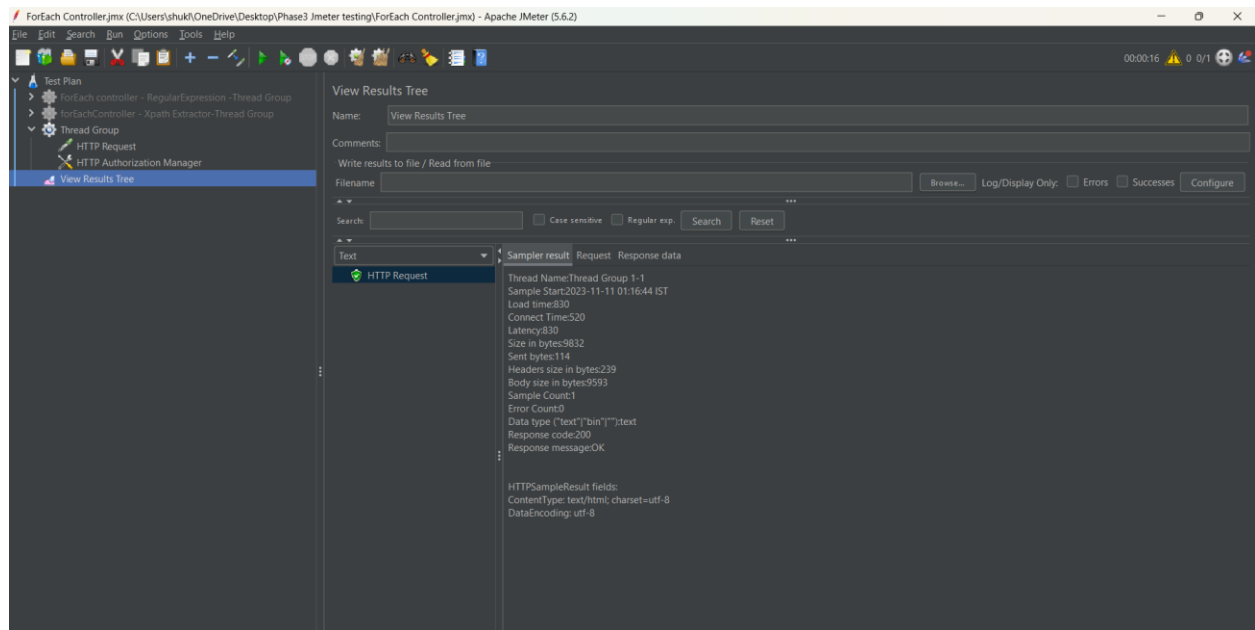
### Right click on thread group -> Add -> Sampler -> create HTTP Request



Right click on thread group -> Add -> Config Element -> HTTP Authorization Manager

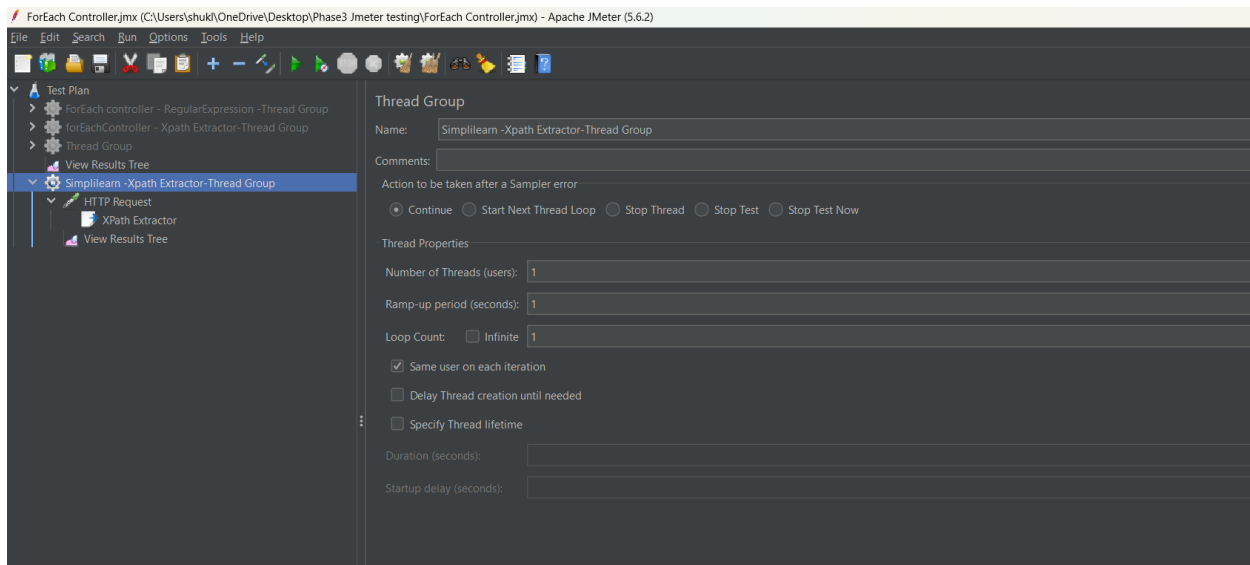


Right click on thread group -> Listener -> View Result Tree

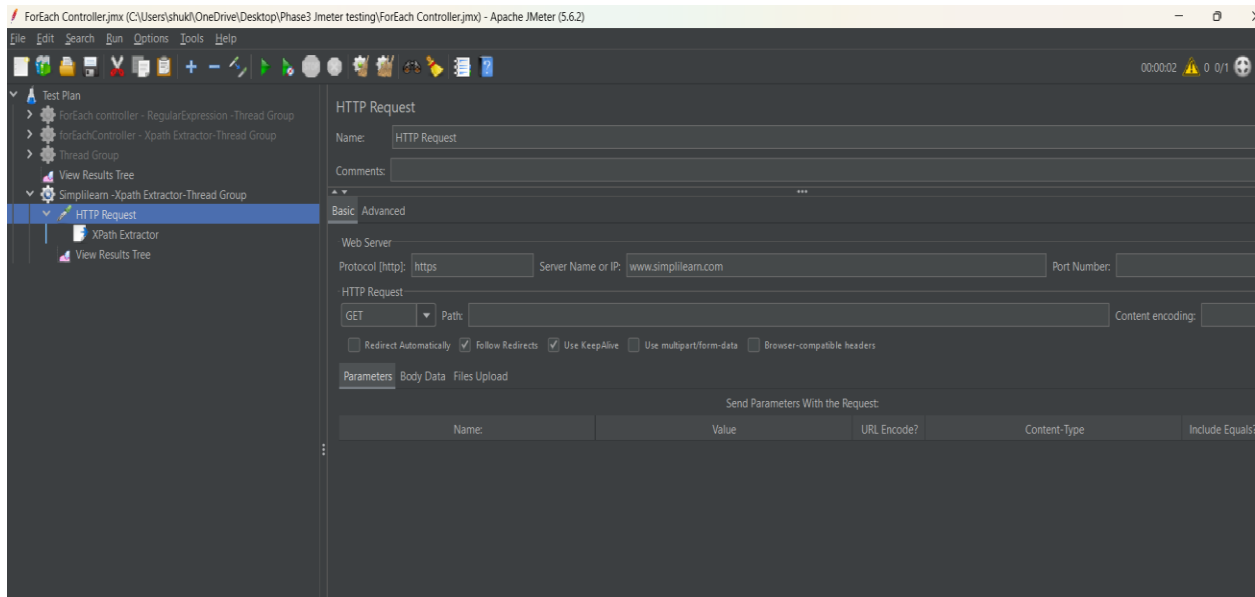


- Using HTTP sampler, hit <https://www.simplilearn.com> and validate xpath as `//img[@title='Simplilearn - Online Certification Training Course Provider']`

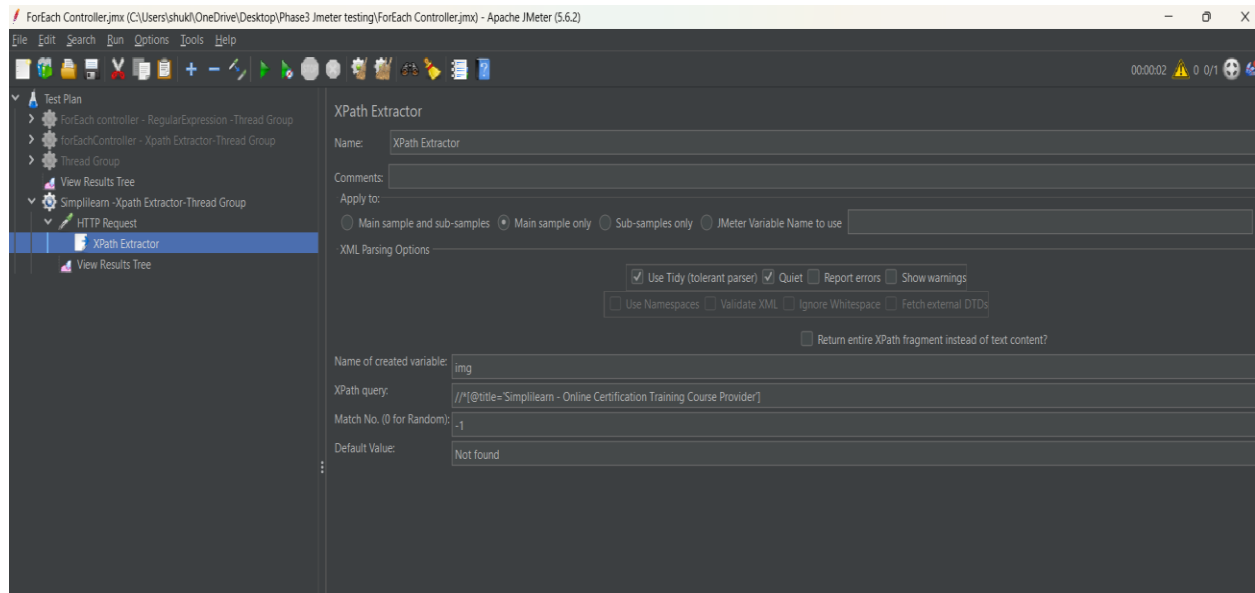
Create a thread group with name Simplilearn – Xpath Extractor- Thread Group as shown below:



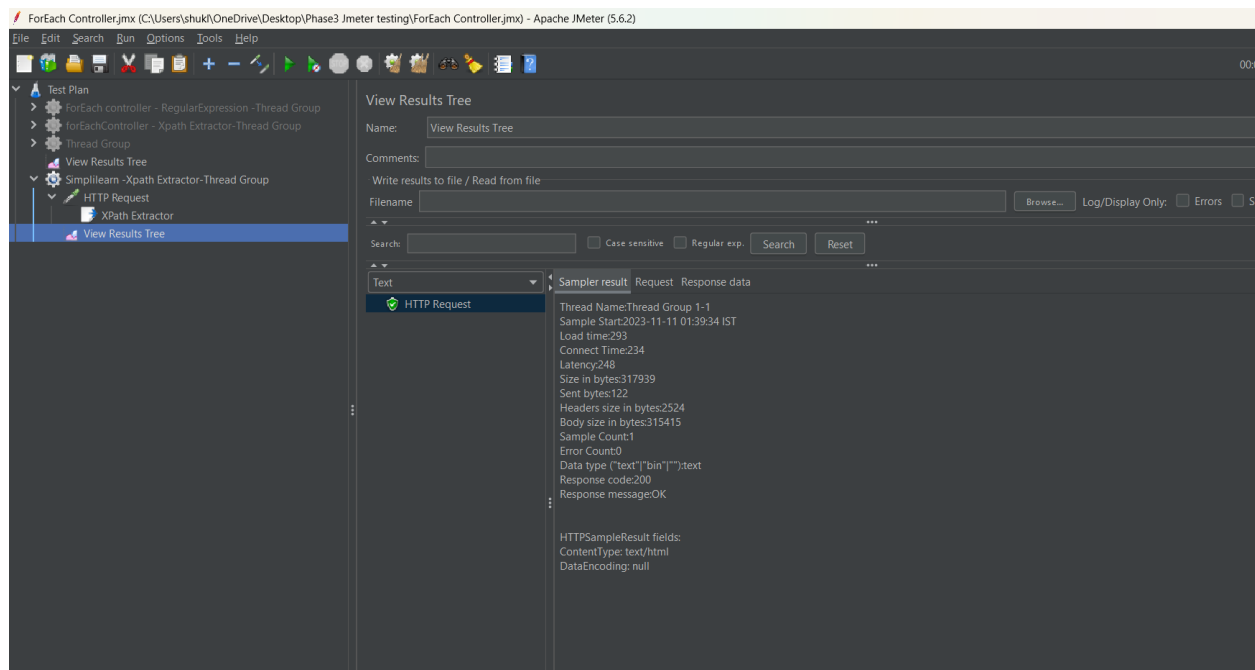
Right click on thread group -> Add -> Sampler -> create HTTP Request



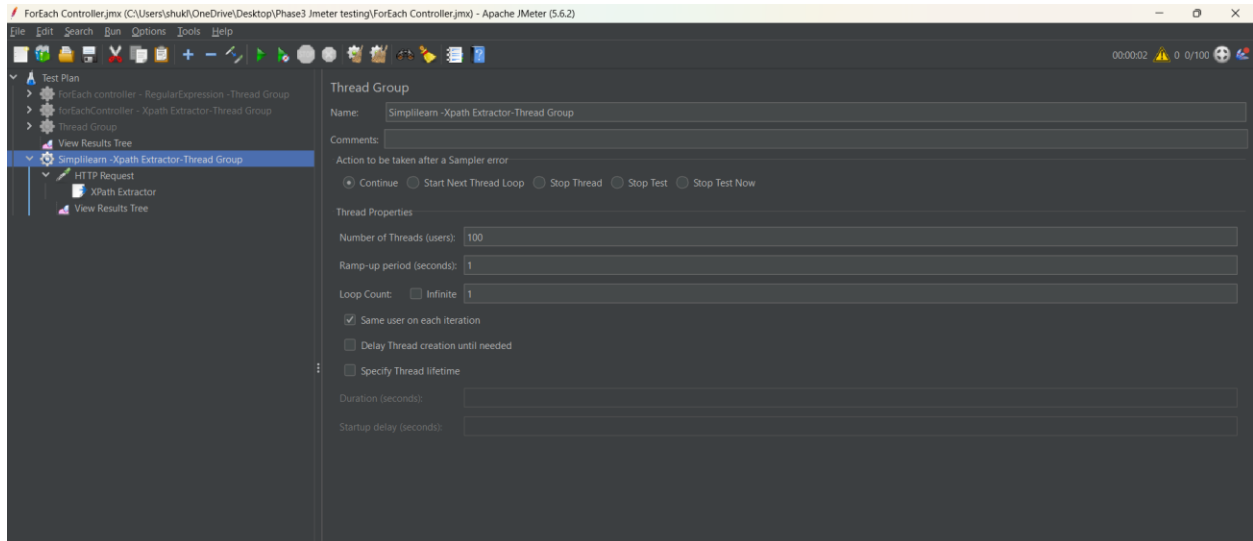
Right click on HTTP Request -> Add -> Post processor -> XPath Extractor



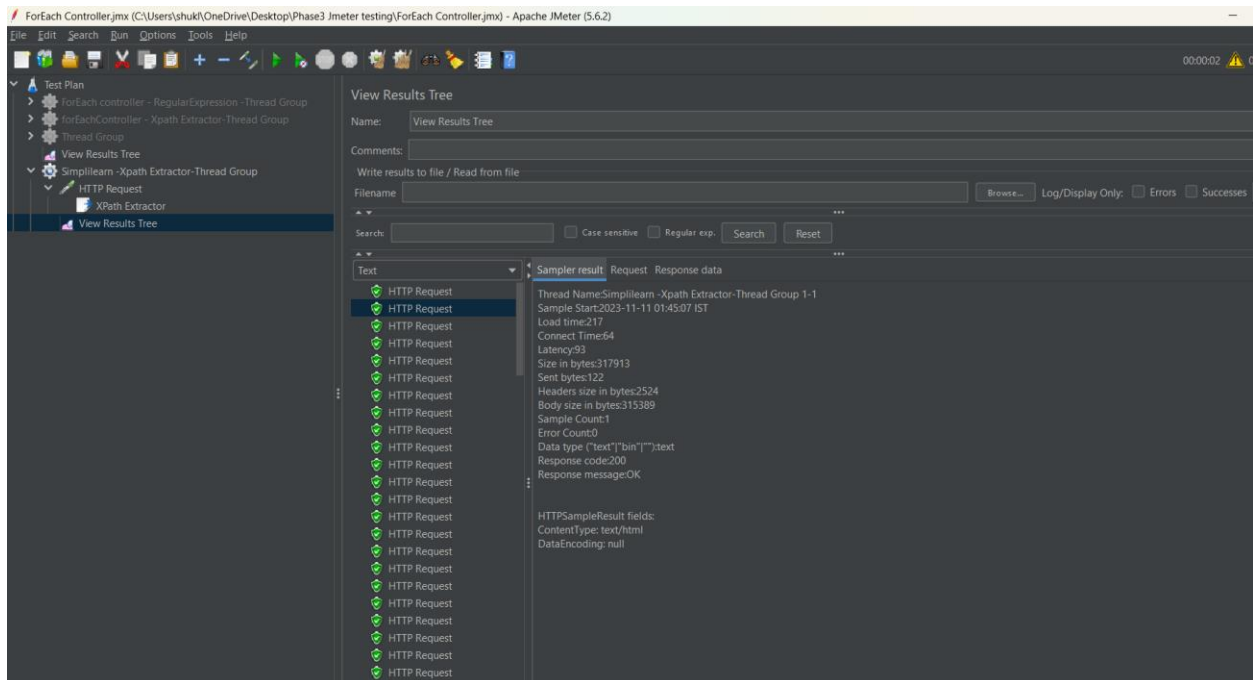
Result Response:



- Increase the thread count and do load testing



Result Response:



Github repository link: <https://github.com/DikshanshSh/Java-fsd/tree/main/Phase%203/Phase-End-Project>