Capstone Project

Project Name: API Testing for Contact List Application

Domain Name: Telecom

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Submitted To: [StarAgile Consulting Pvt Ltd]

GitHubLink:
https://github.com/ritikprajapat8085/AutomationProjects

📌 Table of Contents

📘 1. Project Overview

This capstone project focuses on testing the **APIs** of a sample Contact List Application provided by the **https://thinking-tester-contact-list.herokuapp.com/** application in the Telecom Domain.

The application allows users to **register, log in, and manage contacts** (add, update, delete). It mimics a telecom service where users manage and store their contact information

🎯 2. Objective

The goal is to validate the REST API for the Contact List Application to ensure that it behaves as expected under all conditions.

- Validate HTTP methods: GET, POST, PUT, DELETE, PATCH
- Verify if API responses (data, format, status code) are correct and consistent.
- Test authentication & authorization (login, token usage, protected endpoints)
- Create and run manual/automated test cases using tools like Postman or Rest Assured.
- Maintain documentation of test scenarios, expected vs actual result

🛠 3. Tools:

Tools	Purpose
Postman	Manual API Testing
Newman	Command-line test runs
Java + Rest Assured + TestNG	Automated API Testing
Excel/Google Sheets	For test case documentation
Git-GitHub	for tracking code changes & manage

🔁 4. Testing Flow:

Add User →Get user profile →Update user →Login user →Add Contact →Get contact list →Get contact →Update full contact →Update partial contact →Logout User

🔍 5. Design Testcase/Scenarios

Test Case ID	Test Scenario	HTTP method	Endpoint	Expected Result
TC01	Add New User	POST	https://thinking-tester-contact-list.herokuapp.com/users	201 Created

Test Case ID	Test Scenario	HTTP method	Endpoint	Expected Result
TC02	Get User Profile	GET	https://thinking-tester-contact-list.herokuapp.com/users/me	200 OK
TC03	Update user	PATCH	https://thinking-tester-contact-list.herokuapp.com/users/me	200 OK
TC04	Login User	POST	https://thinking-tester-contact-list.herokuapp.com/users/login	200 OK
TC05	Add Contact	POST	https://thinking-tester-contact-list.herokuapp.com/contacts	201 Created
TC06	Get Contact List	GET	https://thinking-tester-contact-list.herokuapp.com/contacts	200 OK
TC07	Get Contact	GET	https://thinking-tester-contact-list.herokuapp.com/contacts/	200 OK
TC08	Update Contact	PUT	https://thinking-tester-contact-list.herokuapp.com/contacts/{{userid1}}	200 OK
TC09	Update Contact	PATCH	https://thinking-tester-contact-list.herokuapp.com/contacts/{{userid1}}	200 OK
TC10	Logout User	POST	https://thinking-tester-contact-list.herokuapp.com/users/logout	200 OK

✅ 6. Testcase Execution:

6.1 Manual Approach : Using Postman

Test Case 1: Create a new user

Request Type: 🆕 POST

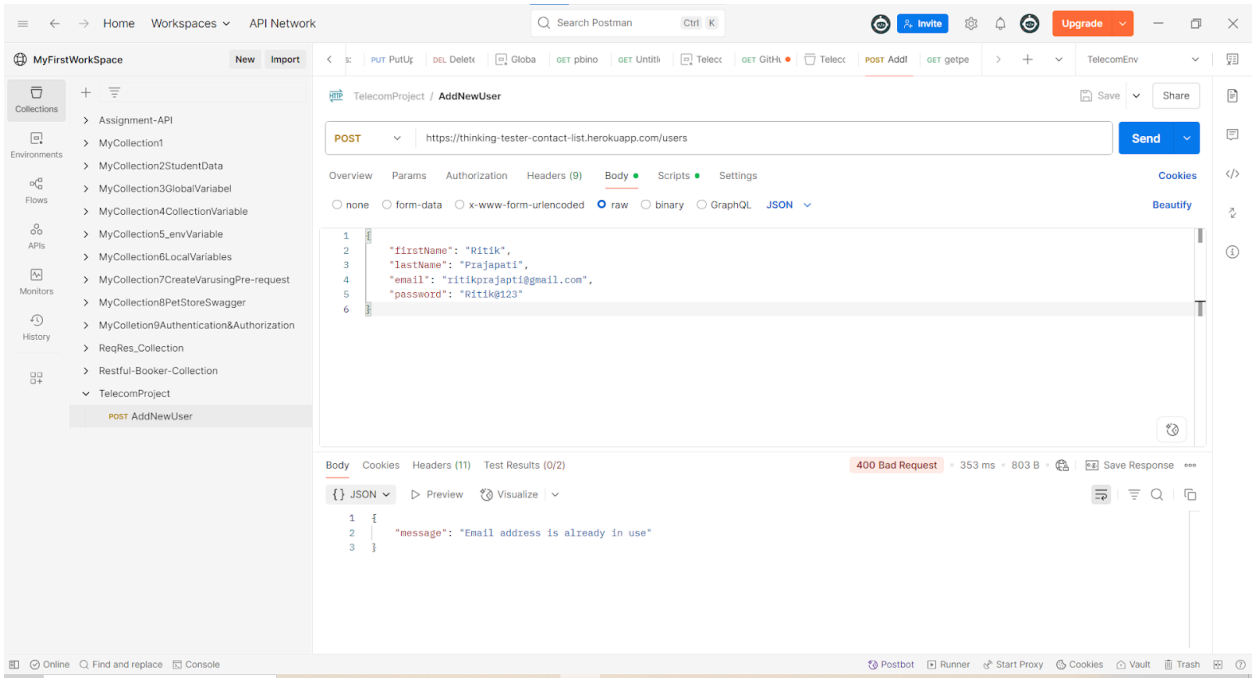
Endpoint: https://thinking-tester-contact-list.herokuapp.com/users

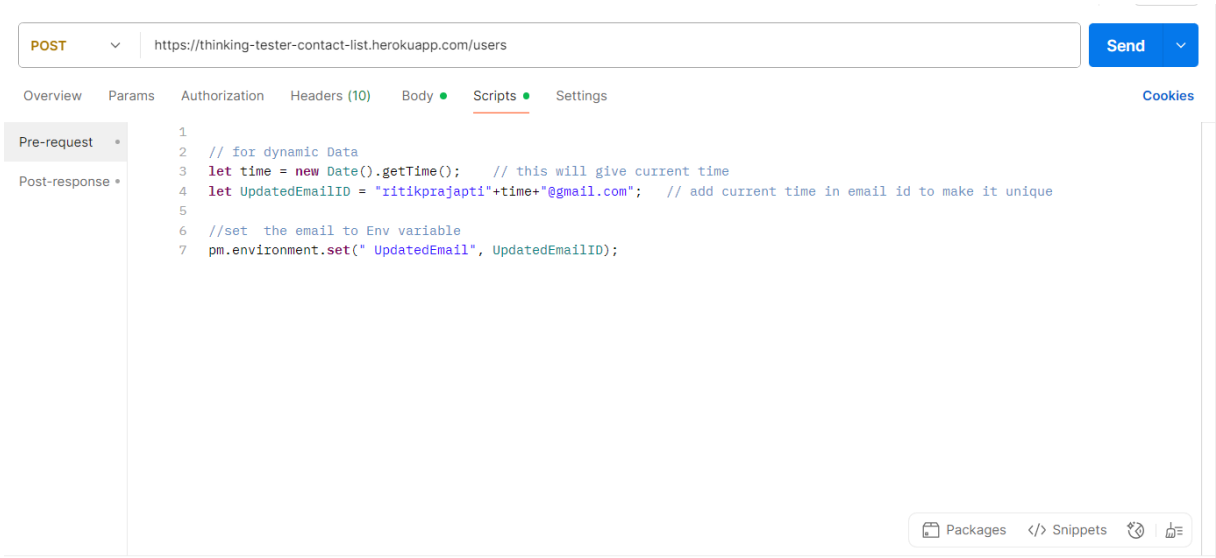
Request Body:

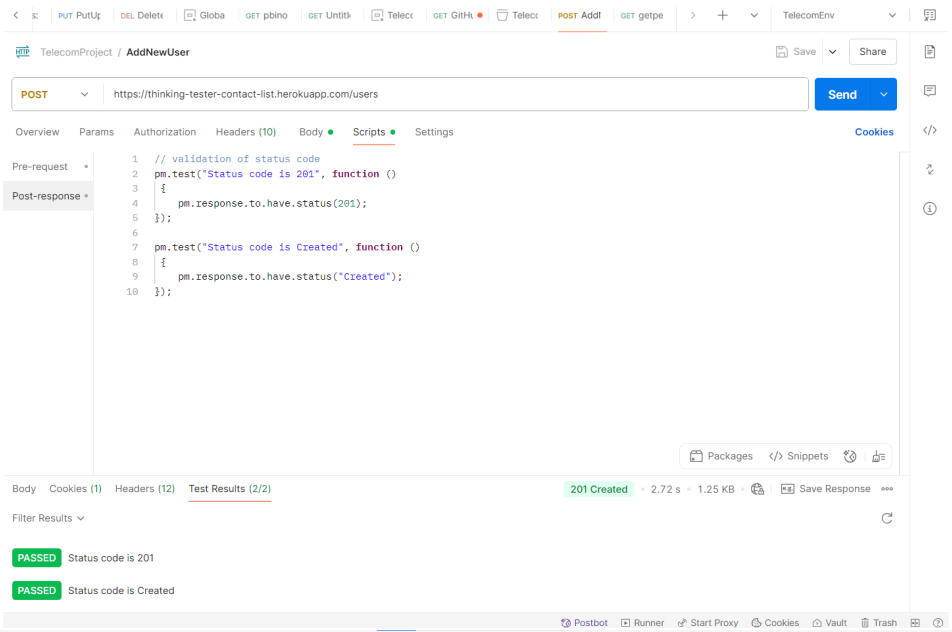
```
{
  "firstName": "Test",
  "lastName": "User",
  "email": "test@fake.com",
  "password": "myPassword"
}
```

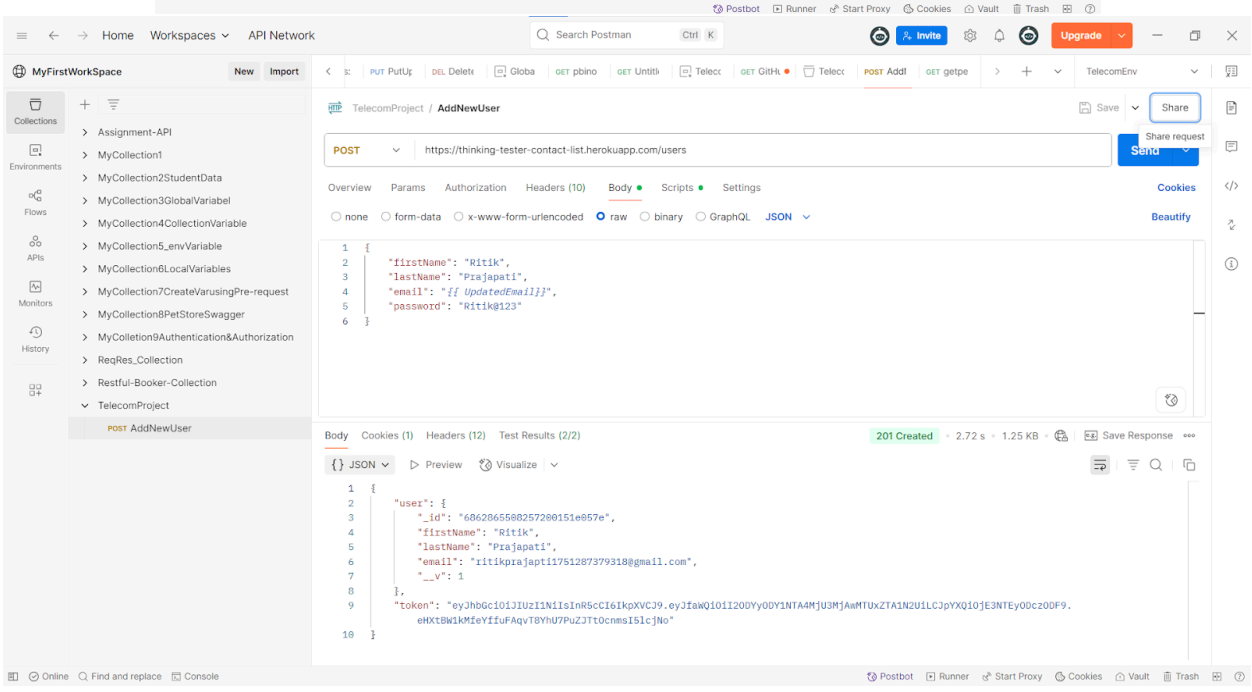
Response validation:

- Test for status code and status message 201 created.
- A token will be generated. Use the token for further testing




POST
https://thinking-tester-contact-list.herokuapp.com/users
Send
Overview
Params
Authorization
Headers (10)
Body
Scripts
Settings
Cookies
Pre-request
Post-response
// for dynamic Data
let time = new Date().getTime(); // this will give current time
let UpdatedEmailID = "ritikprajapti"+time+"@gmail.com"; // add current time in email id to make it unique
//set the email to Env variable
pm.environment.set(" UpdatedEmail", UpdatedEmailID);
Packages
Snippets


TelecomProject / AddNewUser
Save
Share
POST
https://thinking-tester-contact-list.herokuapp.com/users
Send
Overview
Params
Authorization
Headers (10)
Body
Scripts
Settings
Cookies
Pre-request
Post-response
// validation of status code
pm.test("Status code is 201", function ()
{
pm.response.to.have.status(201);
});
pm.test("Status code is Created", function ()
{
pm.response.to.have.status("Created");
});
Packages
Snippets
Body
Cookies (1)
Headers (12)
Test Results (2/2)
201 Created
2.72 s
1.25 KB
Save Response
Filter Results
PASSED
Status code is 201
PASSED
Status code is Created


Home
Workspaces
API Network
Search Postman
Invite
Upgrade
MyFirstWorkSpace
New
Import
Collections
Environments
Flows
APIs
Monitors
History
Assignment-API
MyCollection1
MyCollection2StudentData
MyCollection3GlobalVariabel
MyCollection4CollectionVariable
MyCollection5_envVariable
MyCollection6LocalVariables
MyCollection7CreateVarusingPre-request
MyCollection8PetStoreSwagger
MyColletion9Authentication&Authorization
ReqRes_Collection
Restful-Booker-Collection
TelecomProject
POST AddNewUser
TelecomProject / AddNewUser
Save
Share
Share request
POST
https://thinking-tester-contact-list.herokuapp.com/users
Send
Overview
Params
Authorization
Headers (10)
Body
Scripts
Settings
Cookies
none
form-data
x-www-form-urlencoded
raw
binary
GraphQL
JSON
Beautify
{
"firstName": "Ritik",
"lastName": "Prajapati",
"email": "{{ UpdatedEmail}}",
"password": "Ritik@123"
}
Body
Cookies (1)
Headers (12)
Test Results (2/2)
201 Created
2.72 s
1.25 KB
Save Response
JSON
Preview
Visualize
{
"user": {
"_id": "6862865580257200151e857e",
"firstName": "Ritik",
"lastName": "Prajapati",
"email": "ritikprajapti1751287379318@gmail.com",
"__v": 1
},
"token": "eyJhbGciOiJIUzI1NiIsInR5cCI6IkpXVCJ9.eyJfaWQiOiI2ODYyODY1NTA4MjU3MjAwMTUxZTA1N2UiLCJpYXQiOjE3NTEyODczODF9.
eHXtBW1kMfeYffuFAqvT8YhU7PuZJTtOcnmsI5lcjNo"
}
Online
Find and replace
Console
Postbot
Runner
Start Proxy
Cookies
Vault
Trash

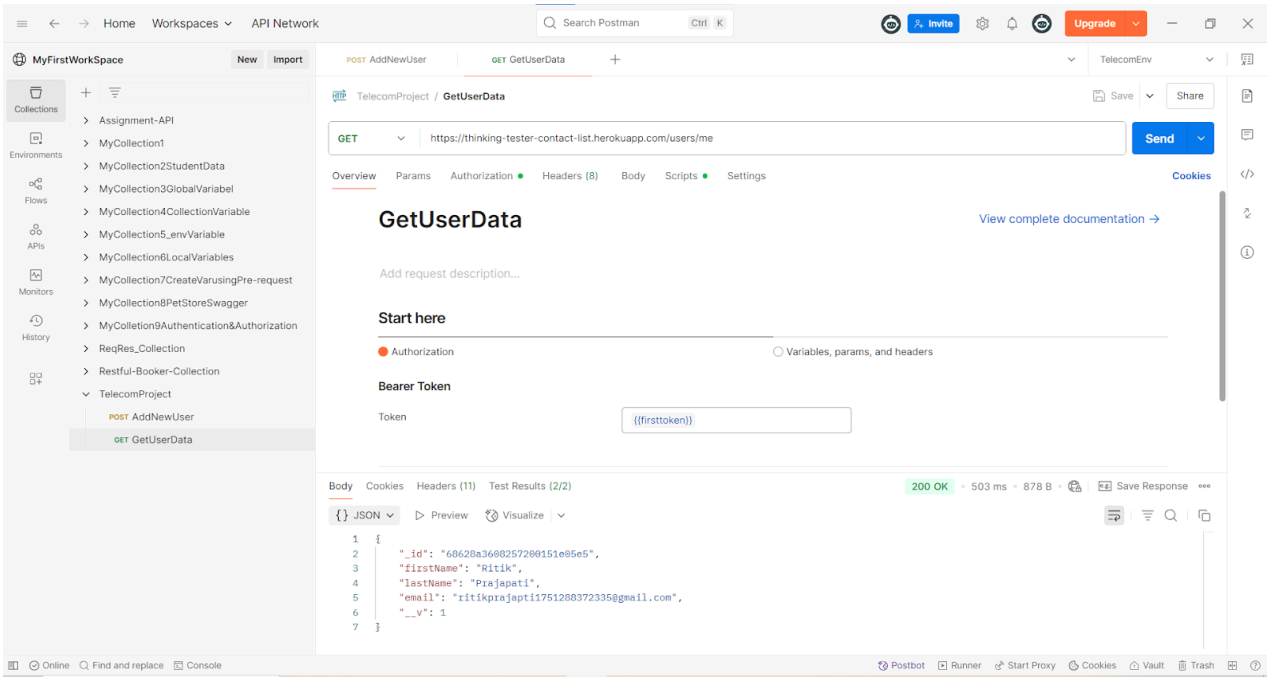
Test Case 2: Get user Profile

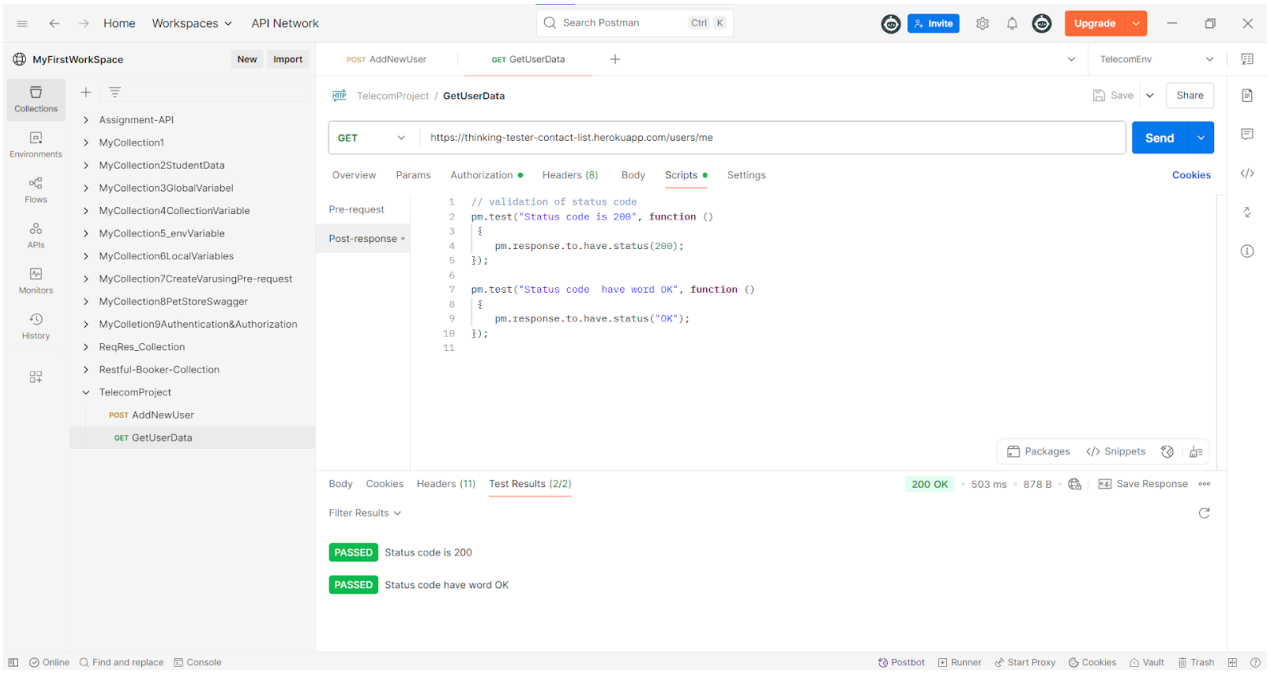
Request Type: 🔍 GET

Endpoint: https://thinking-tester-contact-list.herokuapp.com/users/me

Headers: Authorization Bearer {{token}}

Response validation: Test for status code and status message 200 OK





Test Case 3: Update an existing user's details.

Request Type: 🖉 PATCH

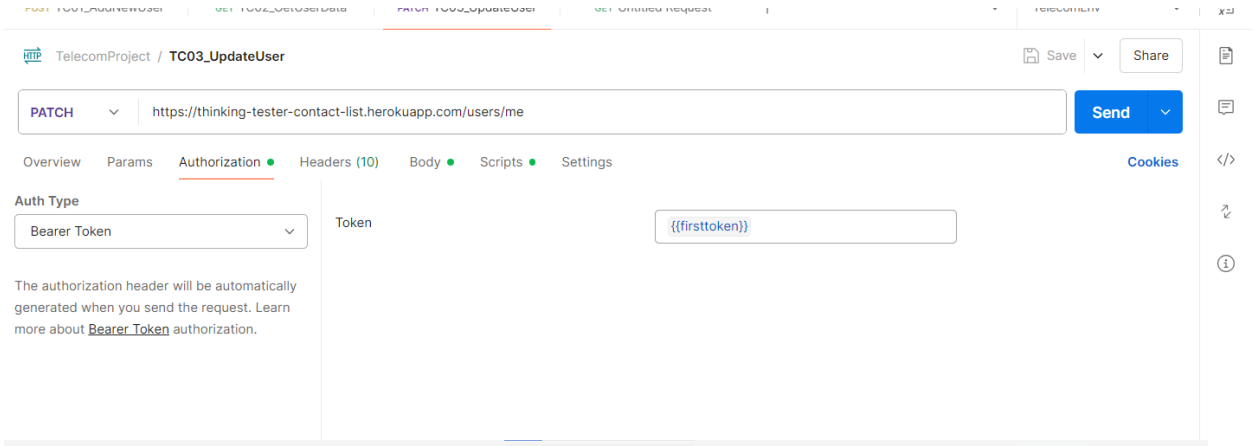
Endpoint: https://thinking-tester-contact-list.herokuapp.com/users/me

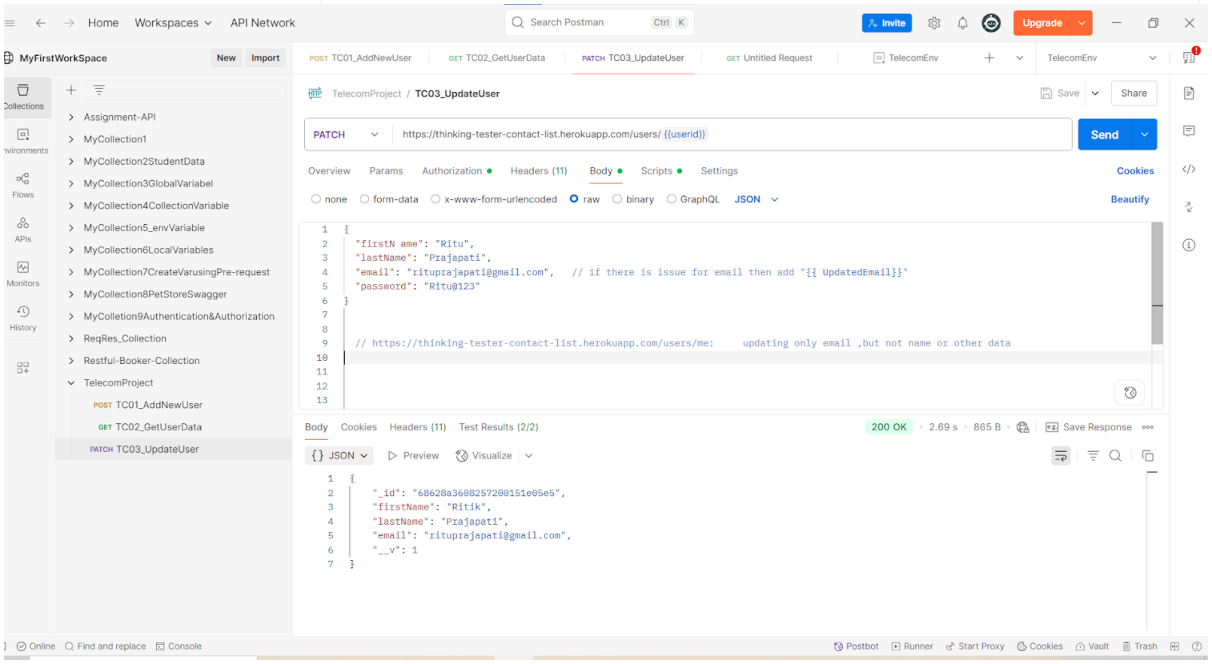
Headers: Authorization Bearer {{token}}

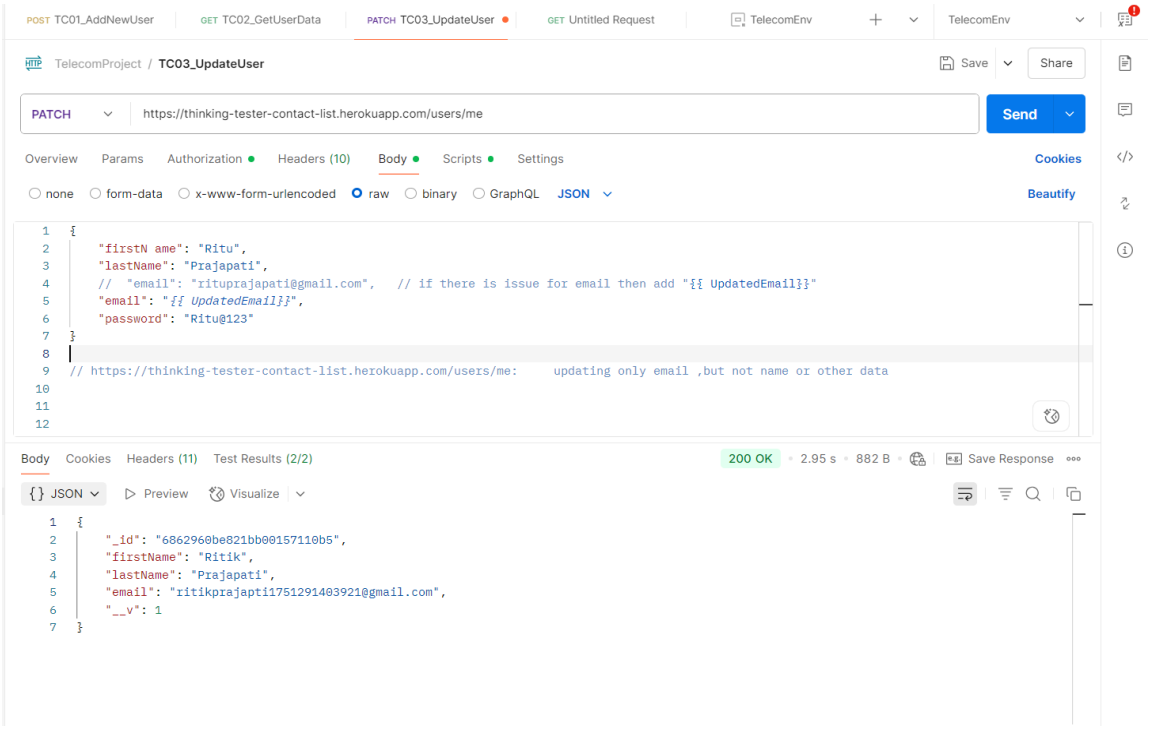
Request Body:

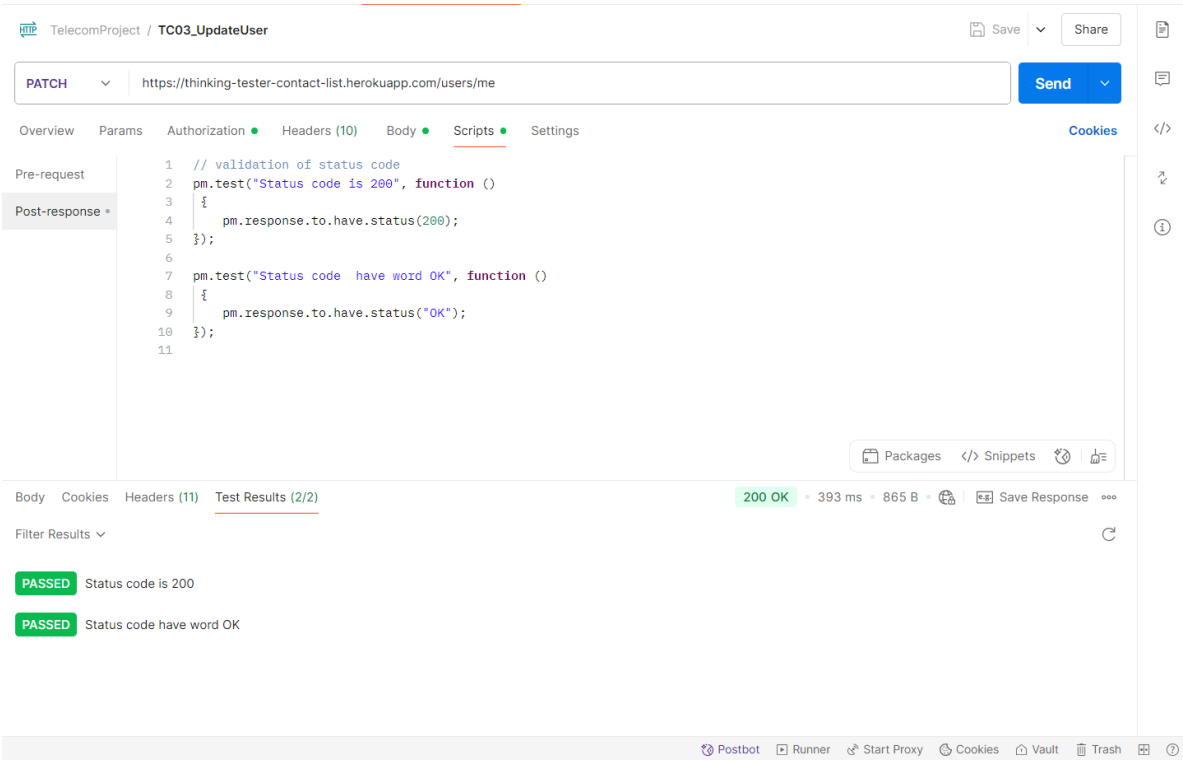
```
{
  "firstN ame": "Updated",
  "lastName": "Username",
  "email": "test2@fake.com",
  "password": "myNewPassword"
}
```

Response validation: Test for status code and status message 200 OK .






POST TC01_AddNewUser
GET TC02_GetUserData
PATCH TC03_UpdateUser
GET Untitled Request
TelecomEnv
TelecomEnv
TelecomProject / TC03_UpdateUser
Save
Share
PATCH
https://thinking-tester-contact-list.herokuapp.com/users/me
Send
Overview
Params
Authorization
Headers (10)
Body
Scripts
Settings
Cookies
none
form-data
x-www-form-urlencoded
raw
binary
GraphQL
JSON
Beautify
{
"firstN ame": "Ritu",
"lastName": "Prajapati",
// "email": "rituprajapati@gmail.com", // if there is issue for email then add "{{ UpdatedEmail}}"
"email": "{{ UpdatedEmail}}",
"password": "Ritu@123"
}
// https://thinking-tester-contact-list.herokuapp.com/users/me: updating only email ,but not name or other data
Body
Cookies
Headers (11)
Test Results (2/2)
200 OK
2.95 s
882 B
Save Response
JSON
Preview
Visualize
{
"_id": "6862960be821bb00157110b5",
"firstName": "Ritik",
"lastName": "Prajapati",
"email": "ritikprajapti11751291403921@gmail.com",
"__v": 1
}


TelecomProject / TC03_UpdateUser
Save
Share
PATCH
https://thinking-tester-contact-list.herokuapp.com/users/me
Send
Overview
Params
Authorization
Headers (10)
Body
Scripts
Settings
Cookies
Pre-request
Post-response
// validation of status code
pm.test("Status code is 200", function ()
{
pm.response.to.have.status(200);
});
pm.test("Status code have word OK", function ()
{
pm.response.to.have.status("OK");
});
Packages
Snippets
Body
Cookies
Headers (11)
Test Results (2/2)
200 OK
393 ms
865 B
Save Response
Filter Results
PASSED
Status code is 200
PASSED
Status code have word OK
Postbot
Runner
Start Proxy
Cookies
Vault
Trash

Test Case 4: Login User

Request Type: NEW POST

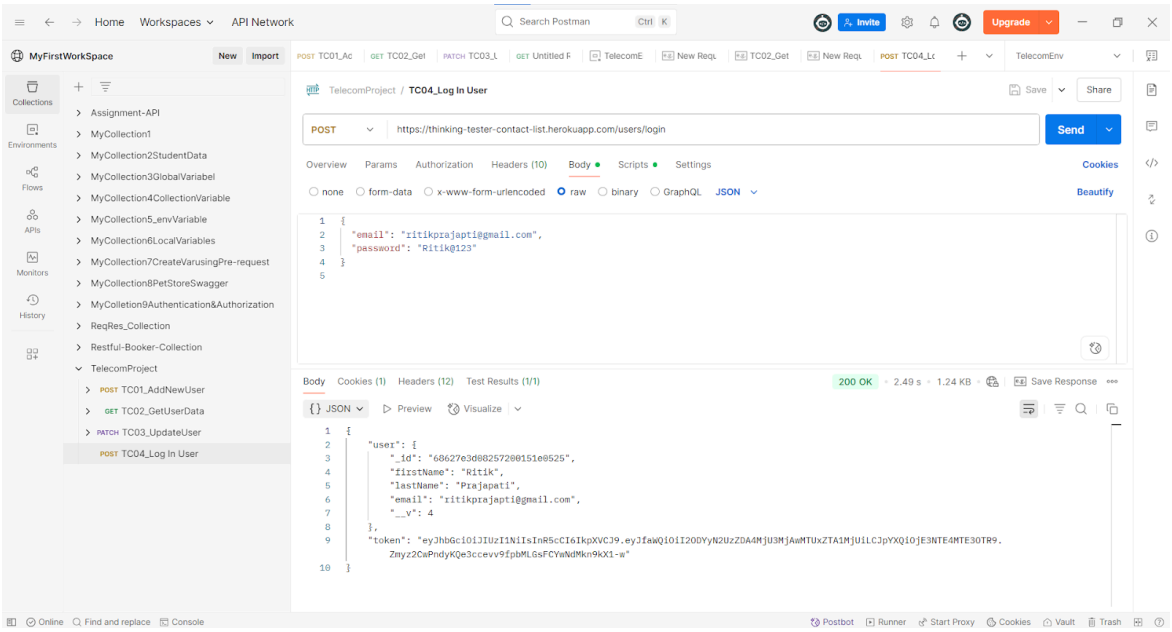
Endpoint: https://thinking-tester-contact-list.herokuapp.com/users/login

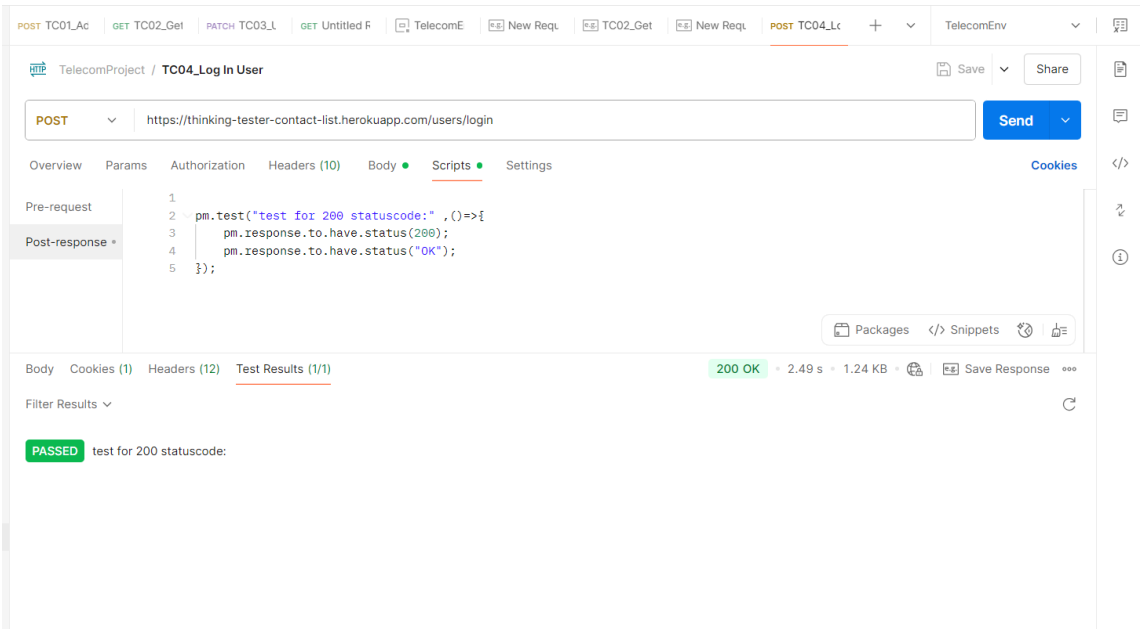
Request Body:

```
{
  "email": "test2@fake.com",
  "password": "myNewPassword"
}
```

Response validation:

- Test for status code and status message 200 OK
- A token will be generated. Use the token for further testing





Test Case 5: Add Contact

Request Type: NEW POST

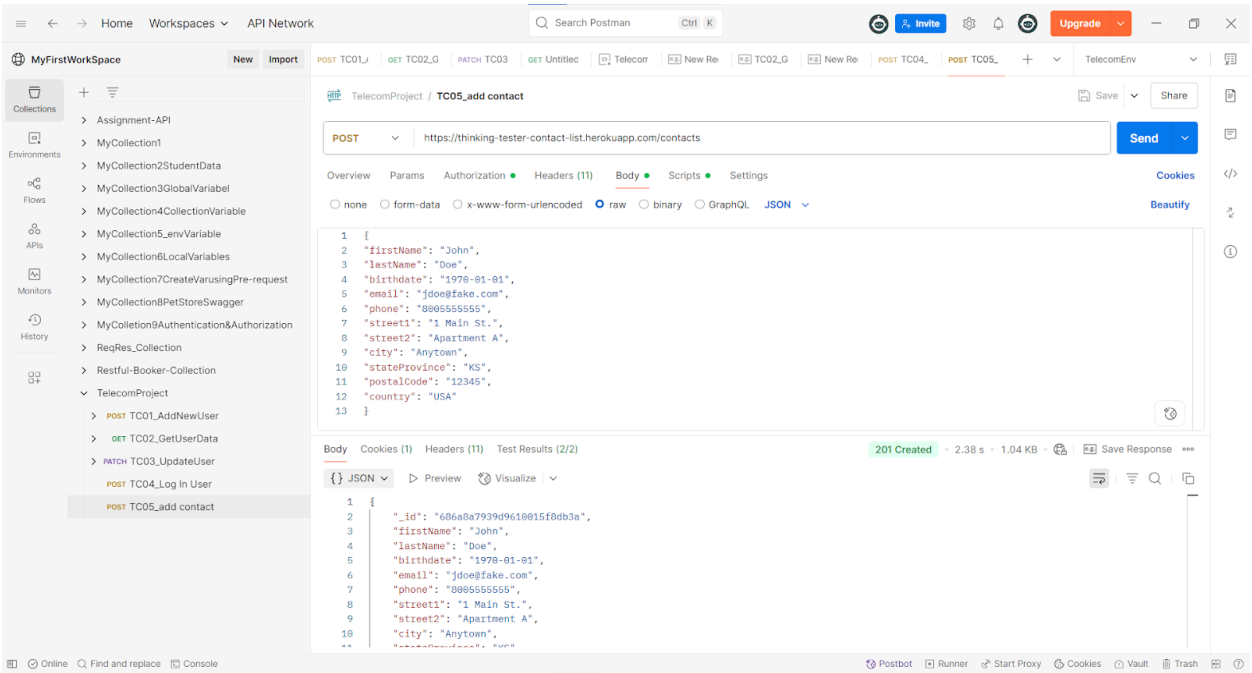
Endpoint: https://thinking-tester-contact-list.herokuapp.com/contacts

Headers: Authorization Bearer {{token}}

Request Body:

```
{
 "firstName": "John",
 "lastName": "Doe",
"birthdate": "1970-01-01",
 "email": "jdoe@fake.com",
 "phone": "8005555555",
"street1": "1 Main St.",
 "street2": "Apartment A",
"city": "Anytown",
 "stateProvince": "KS",
 "postalCode": "12345",
"country": "USA"
}
```

Response validation: Test for status code and status message 201 Created



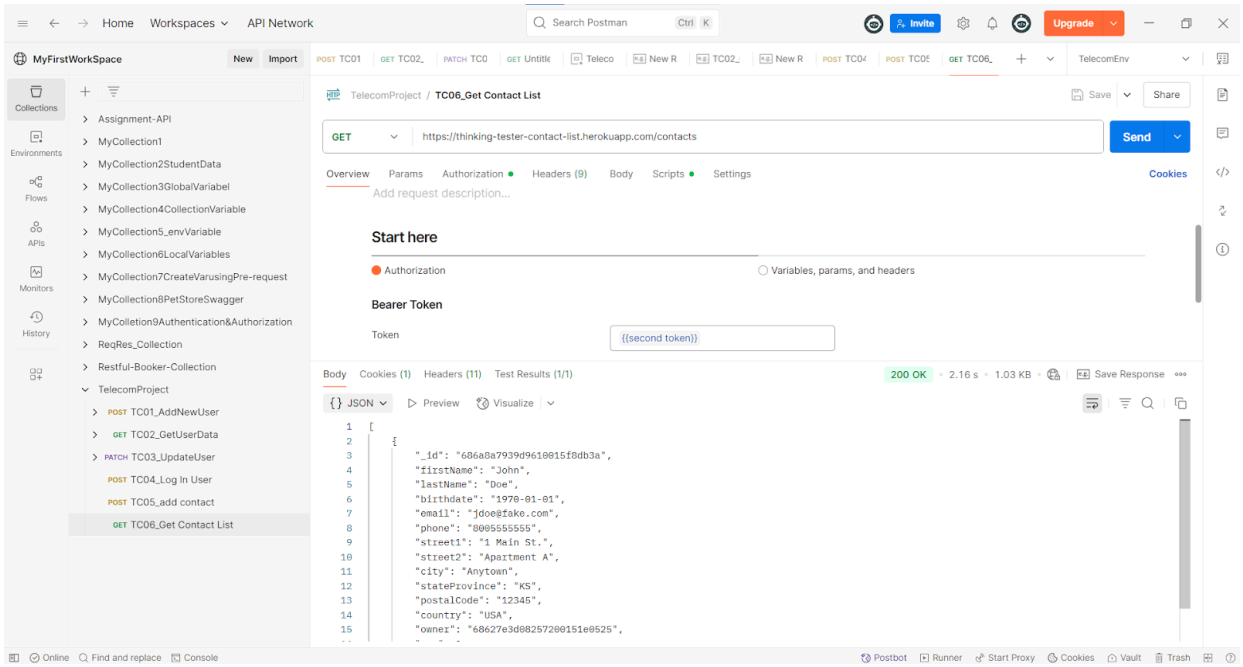
Test Case 6: Get Contact List

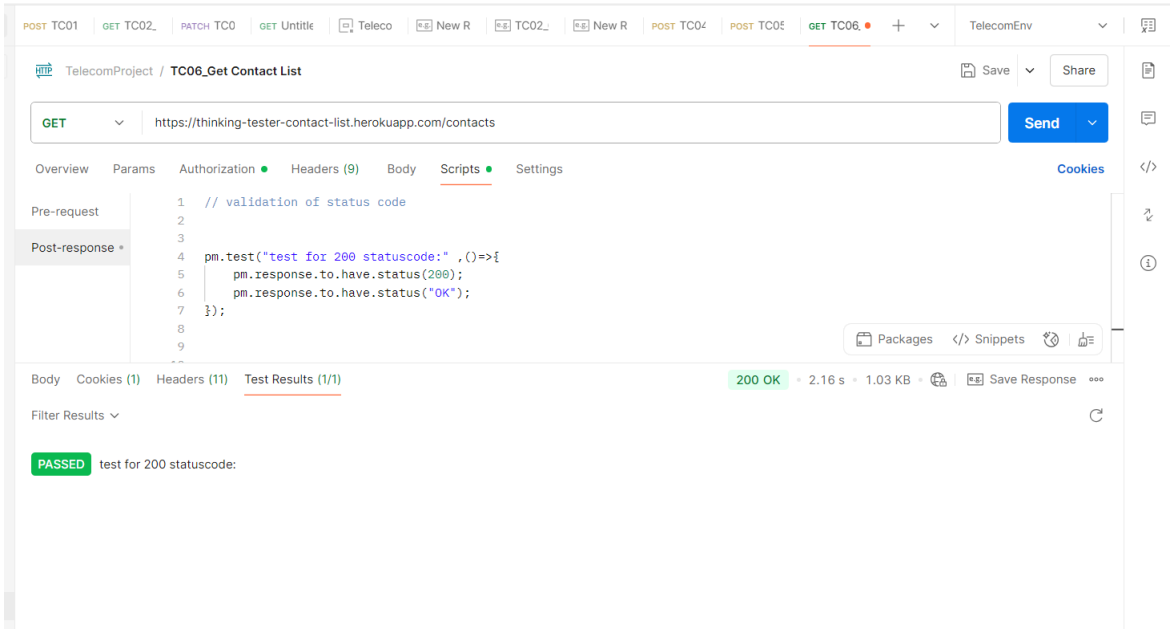
Request Type: 🔍 GET

Endpoint: https://thinking-tester-contact-list.herokuapp.com/contacts

Headers: Authorization Bearer {{token}}

Response validation: Test for status code and status message 200 OK





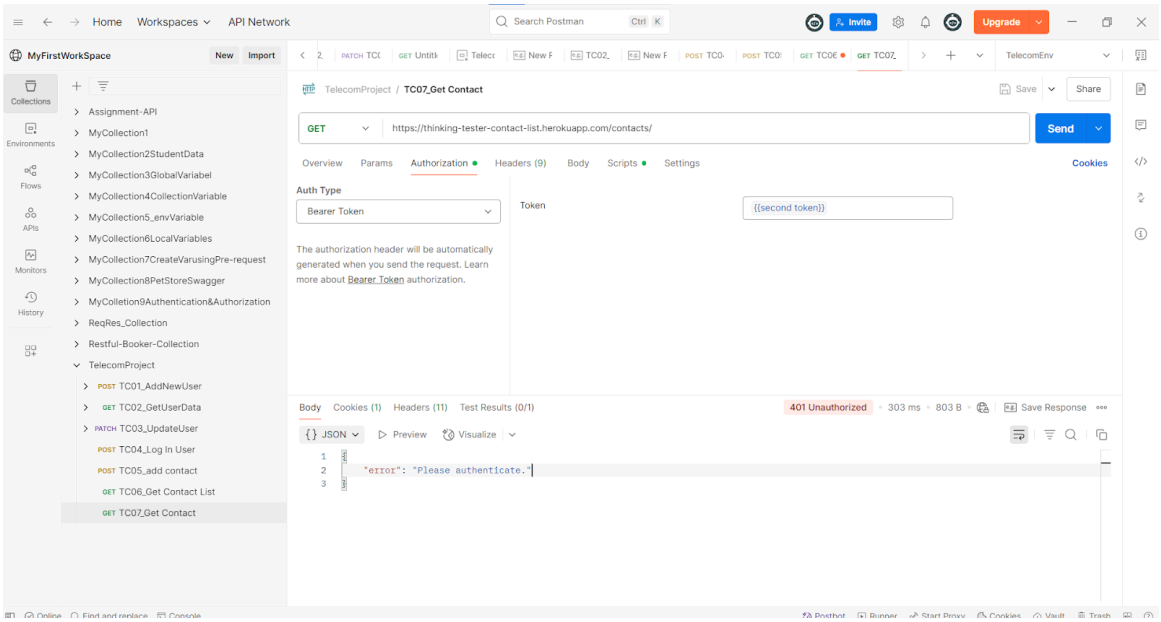
Test Case 7: Get Contact

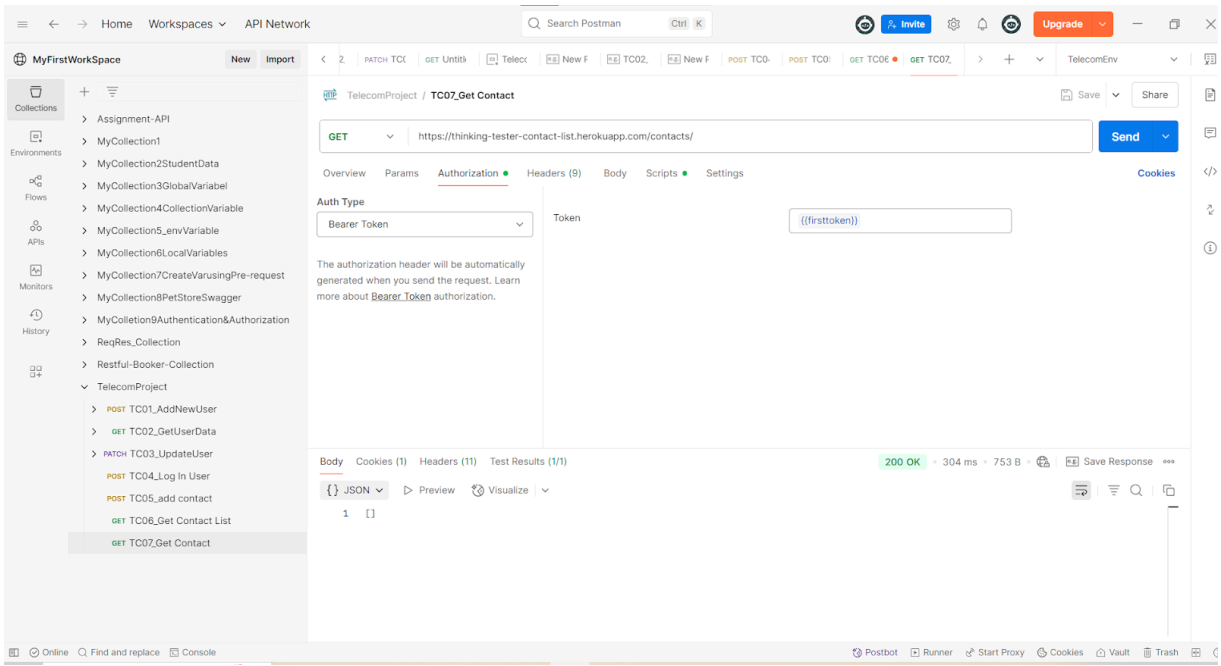
Request Type: 🔍 GET

Endpoint: https://thinking-tester-contact-list.herokuapp.com/contacts/

Headers: Authorization Bearer {{token}}

Response validation: Test for status code and status message 200 OK





Test Case 8: Update Contact

Request Type: 🖊️ PUT

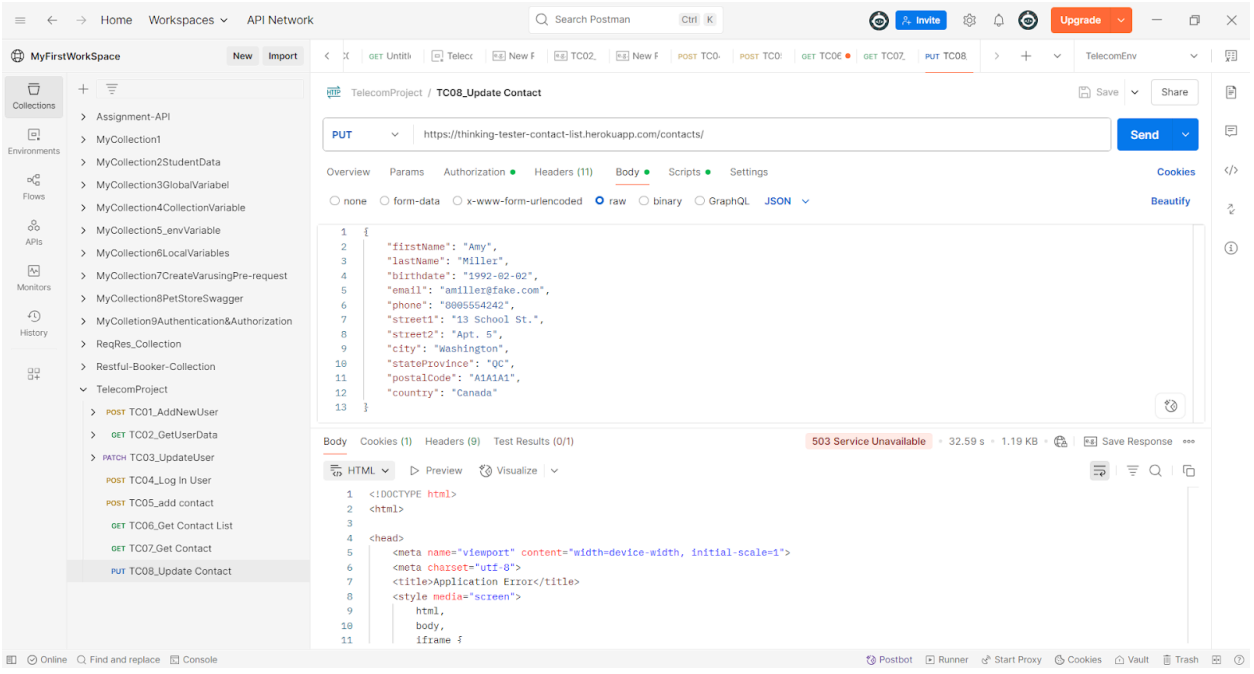
Endpoint: https://thinking-tester-contact-list.herokuapp.com/contacts/

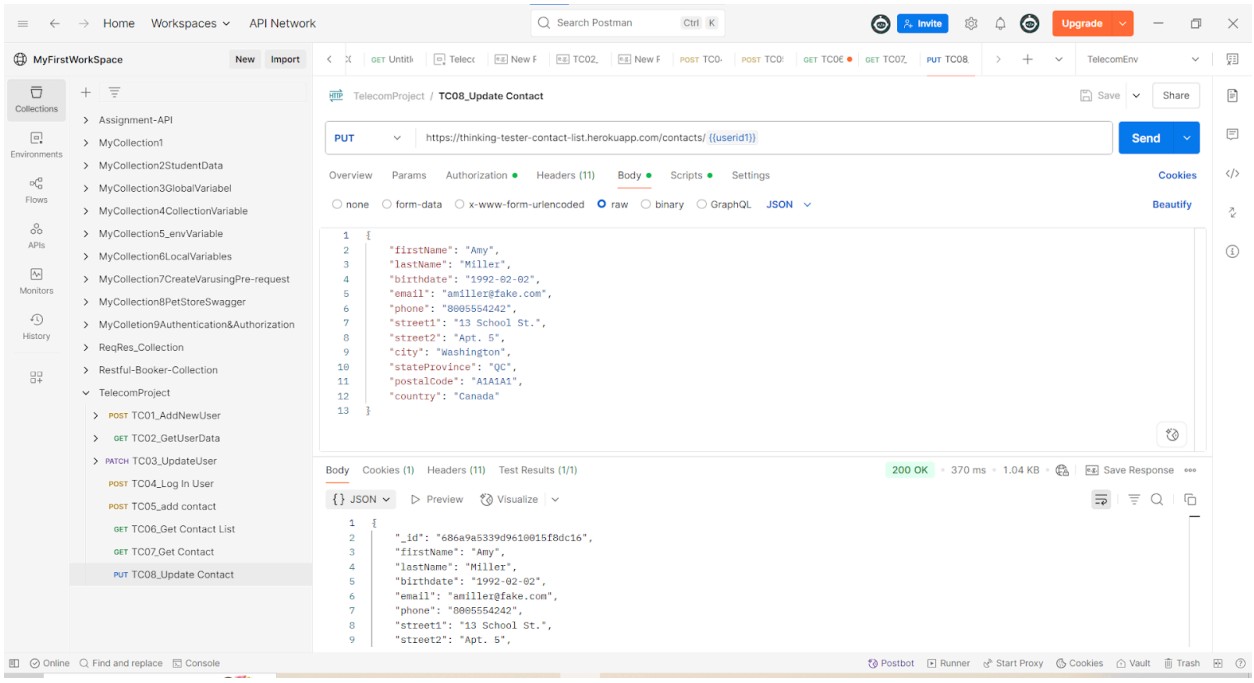
Headers: Authorization Bearer {{token}}

Request Body:

```
{
  "firstName": "Amy",
 "lastName": "Miller",
"birthdate": "1992-02-02",
"email": "amiller@fake.com",
 "phone": "8005554242",
 "street1": "13 School St.",
"street2": "Apt. 5",
"city": "Washington",
 "stateProvince": "QC",
 "postalCode": "A1A1A1",
 "country": "Canada"
}
```

Response validation: Test for status code and status message 200 OK





Test Case 9: Update Contact

Request Type: PATCH

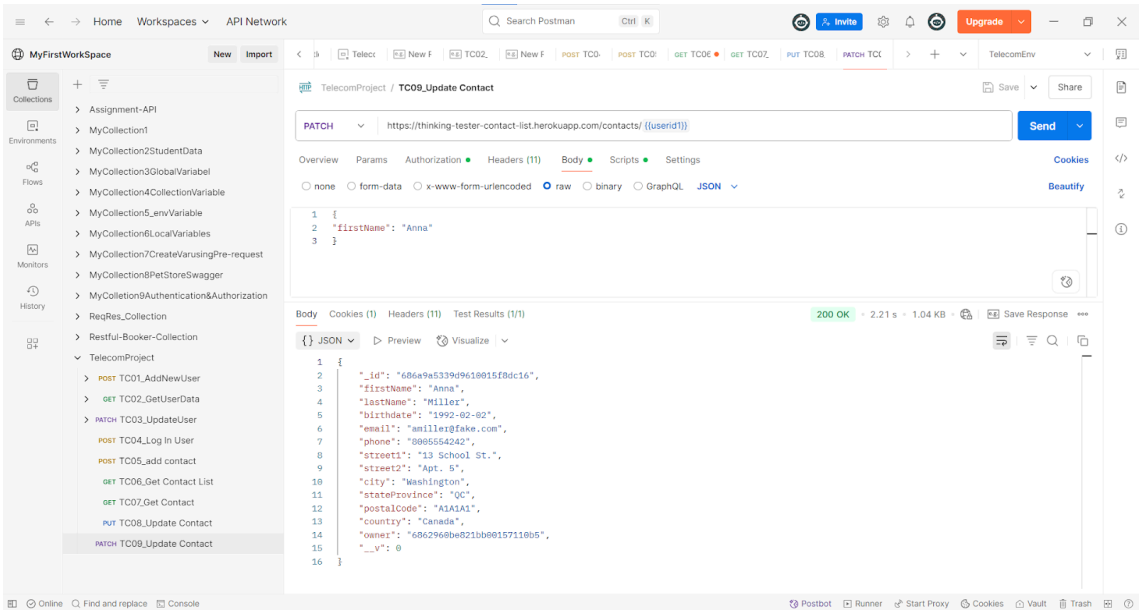
Endpoint: https://thinking-tester-contact-list.herokuapp.com/contacts/

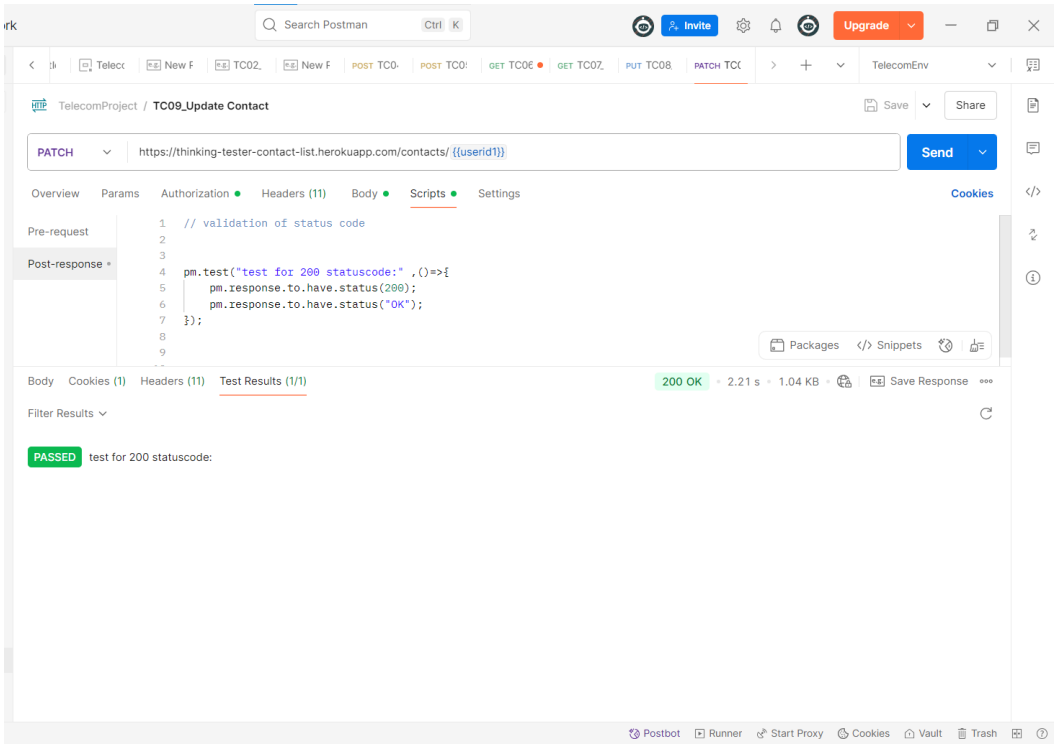
Headers: Authorization Bearer {{token}}

Request Body:

```
{
  "firstName": "Anna"
}
```

Response validation: Test for status code and status message 200 OK .





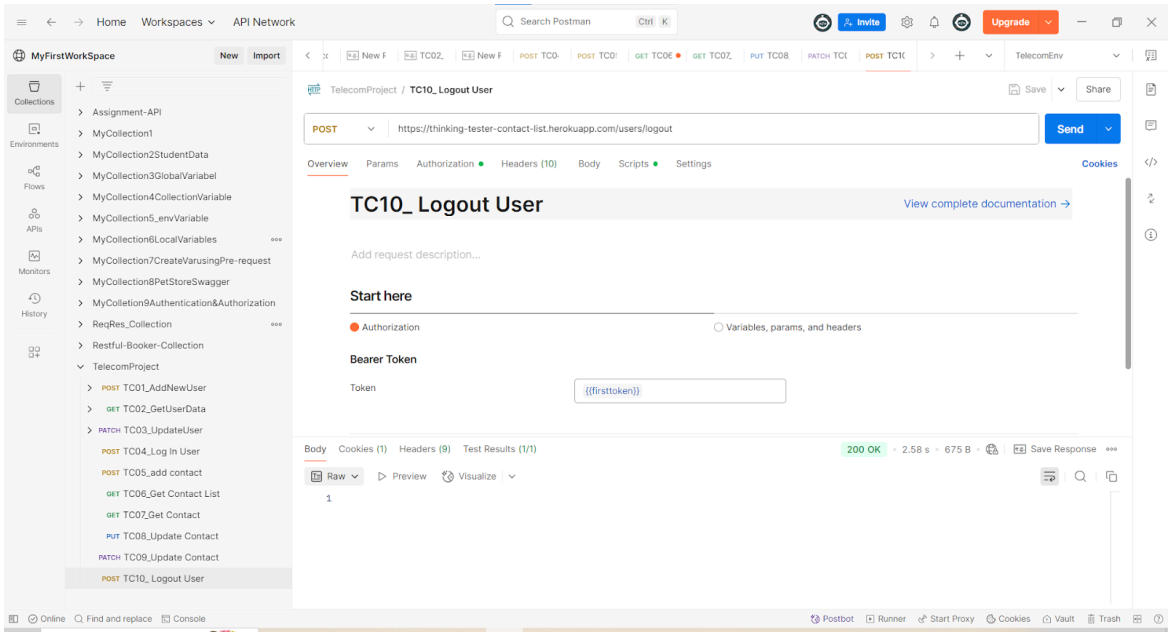
Test Case 10: Logout User

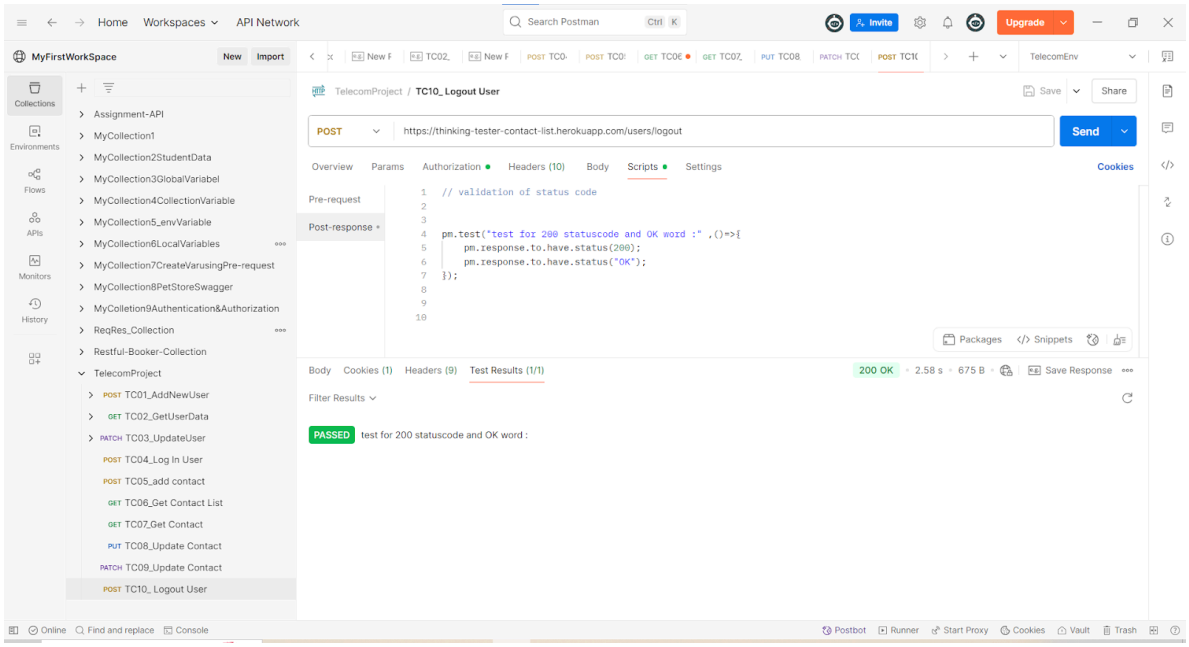
Request Type: NEW POST

Endpoint: https://thinking-tester-contact-list.herokuapp.com/users/logout

Headers: Authorization Bearer {{token}}

Response validation: Test for status code and status message 201 created

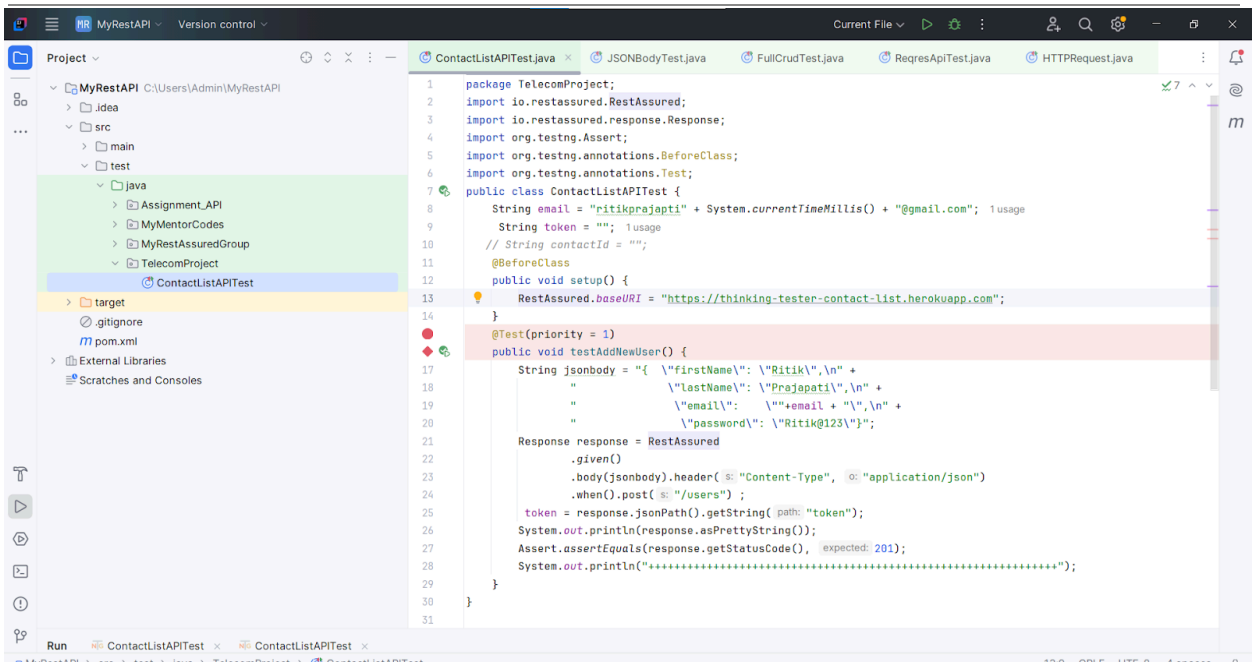


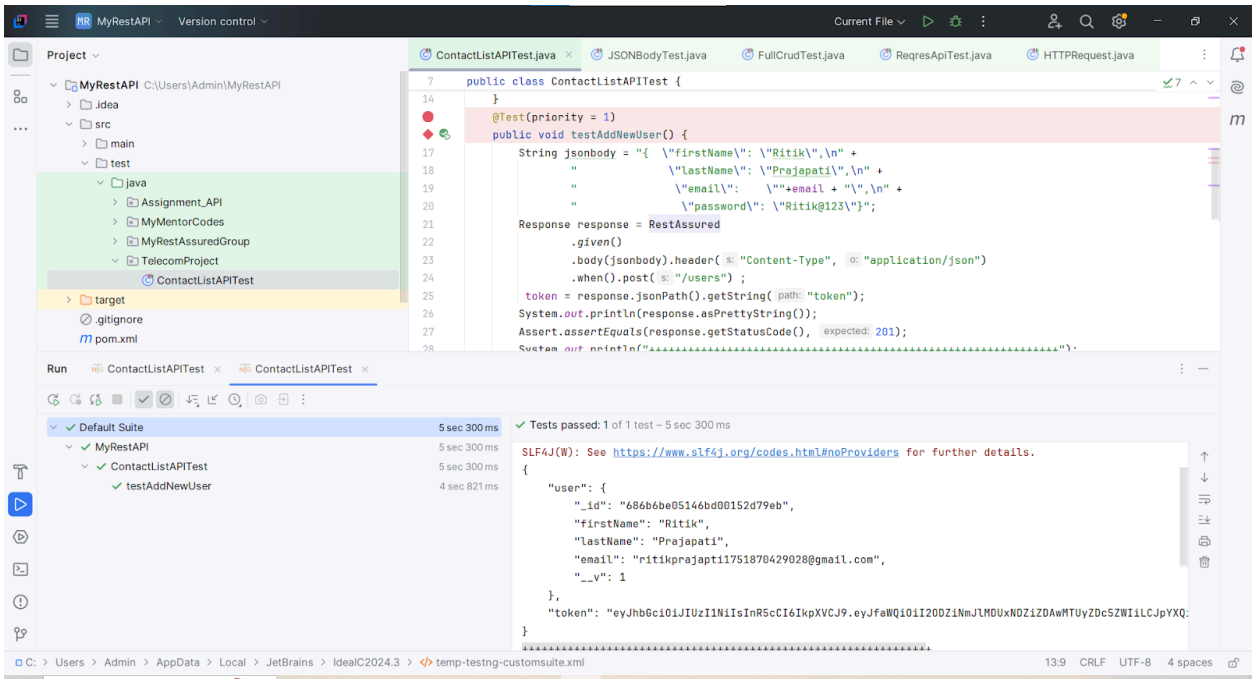


✅ 6. Testcase Execution:

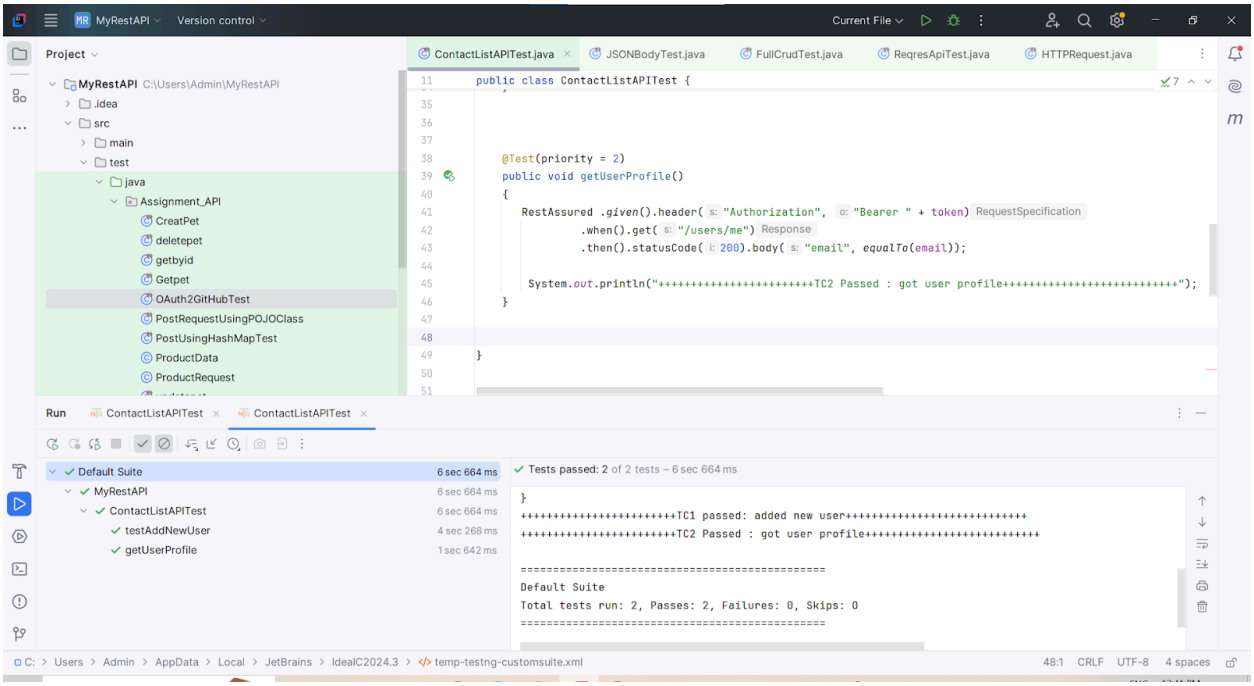
6.2 **Automation Approach:** Using RestAssured framework

Test Case 1: Add New User

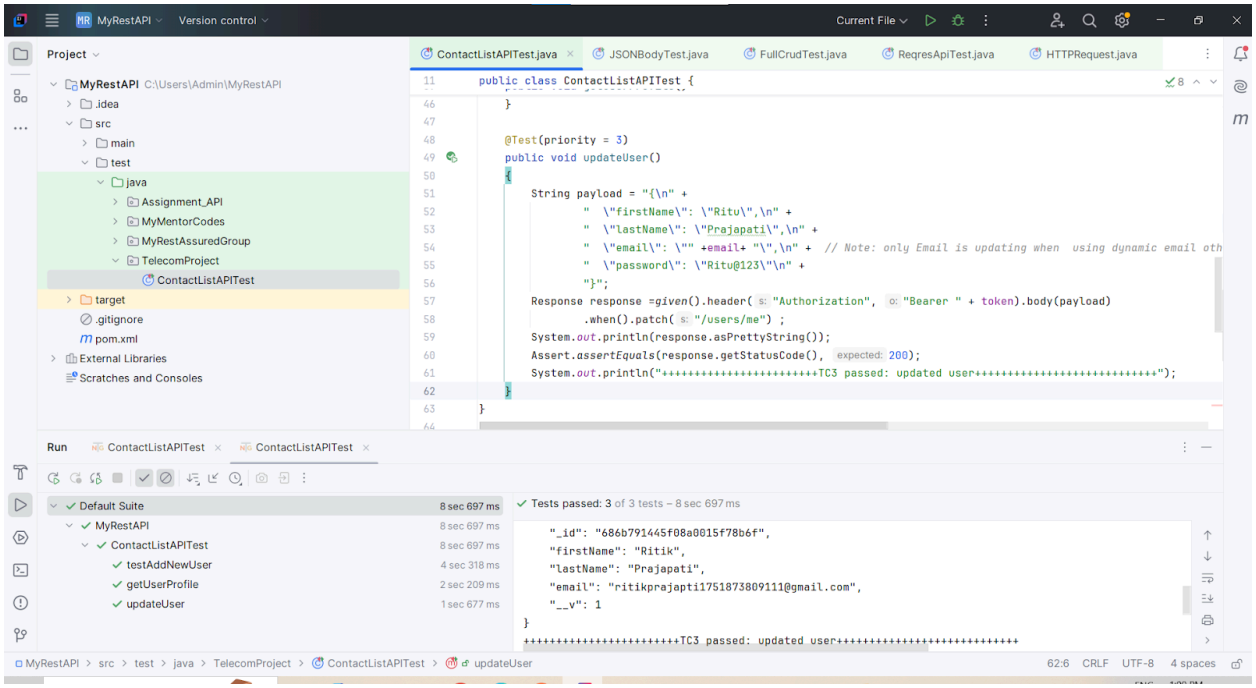




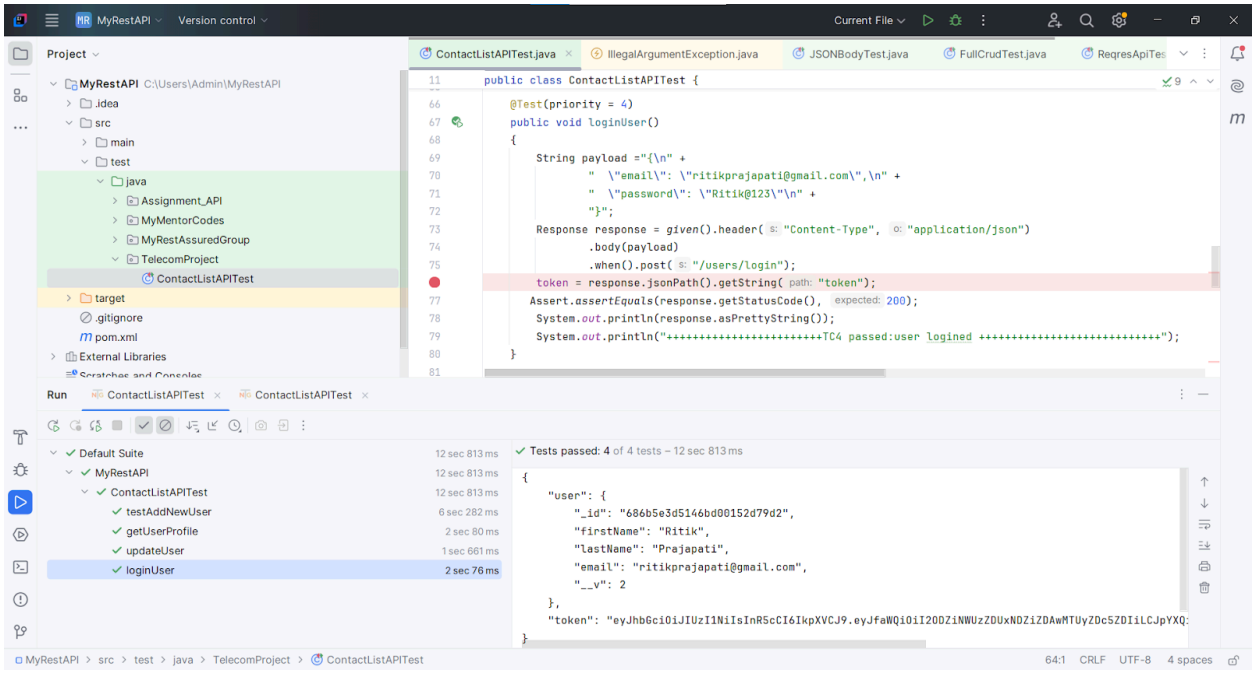
Test Case 2: Get user Profile



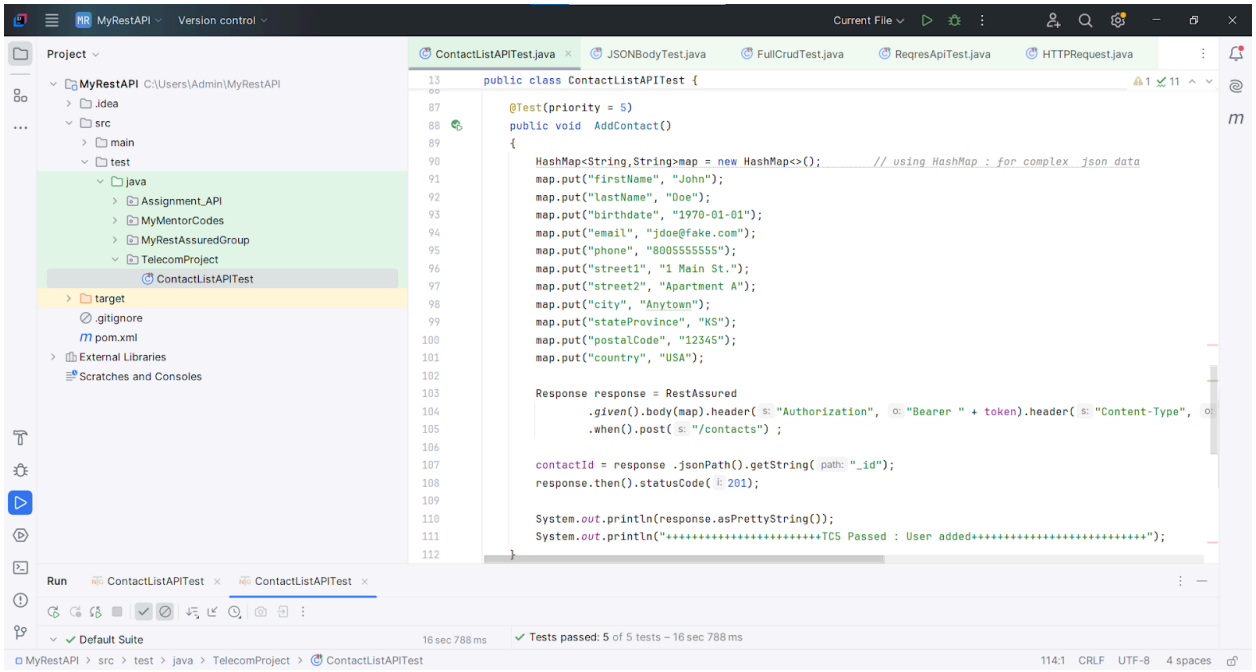
Test Case 3: Update User

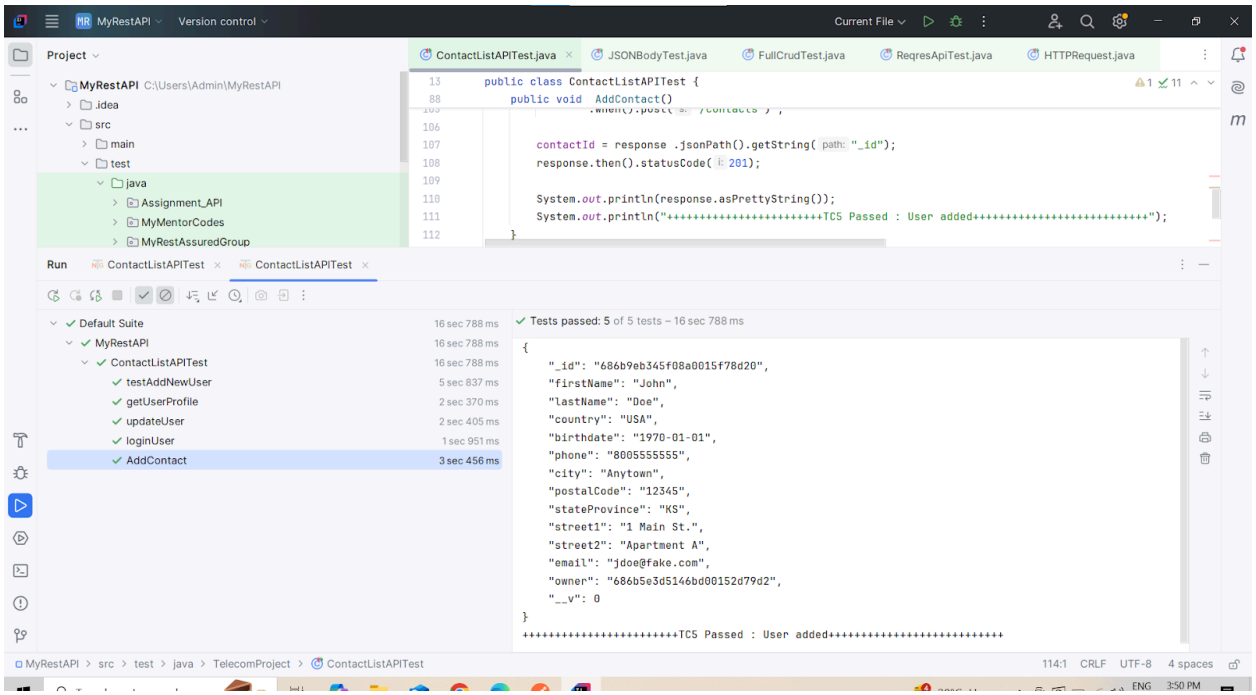


Test Case 4: Login User

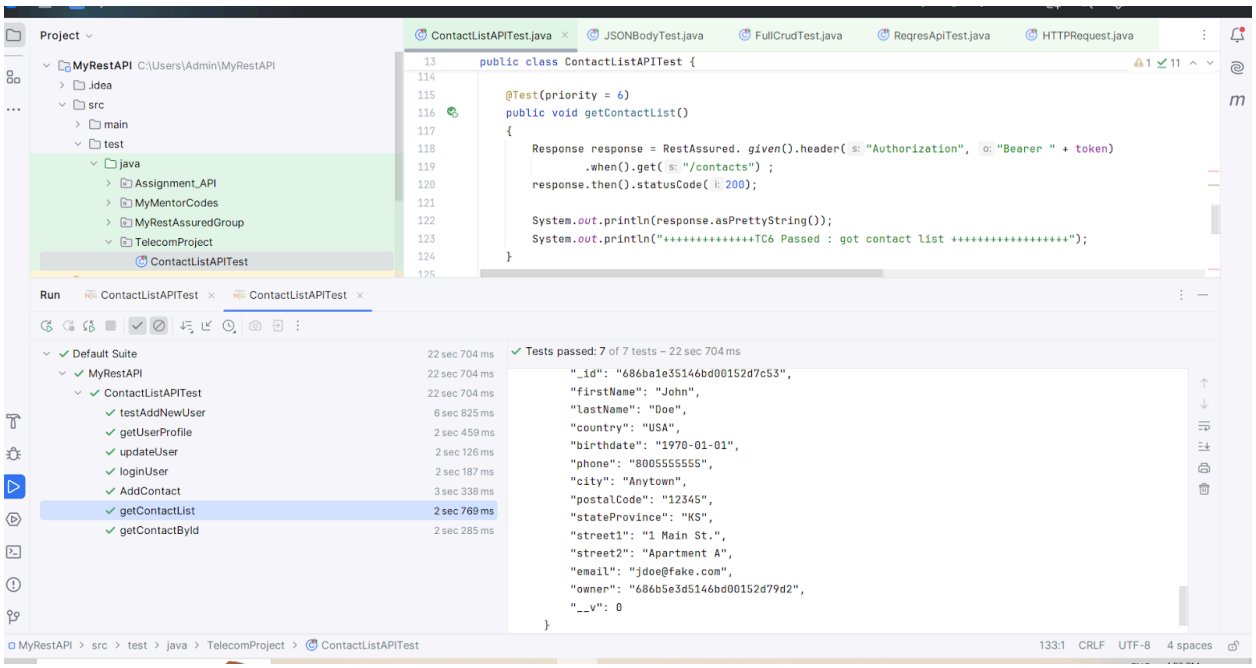


Test Case 5: Add Contact

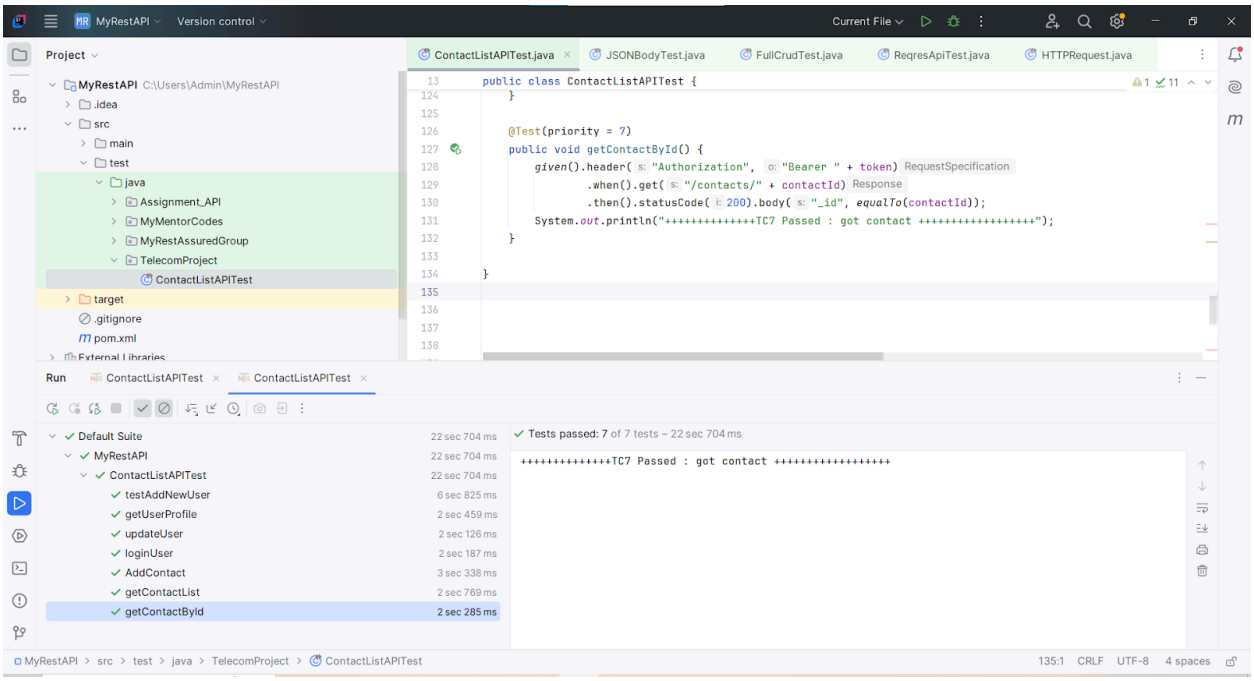




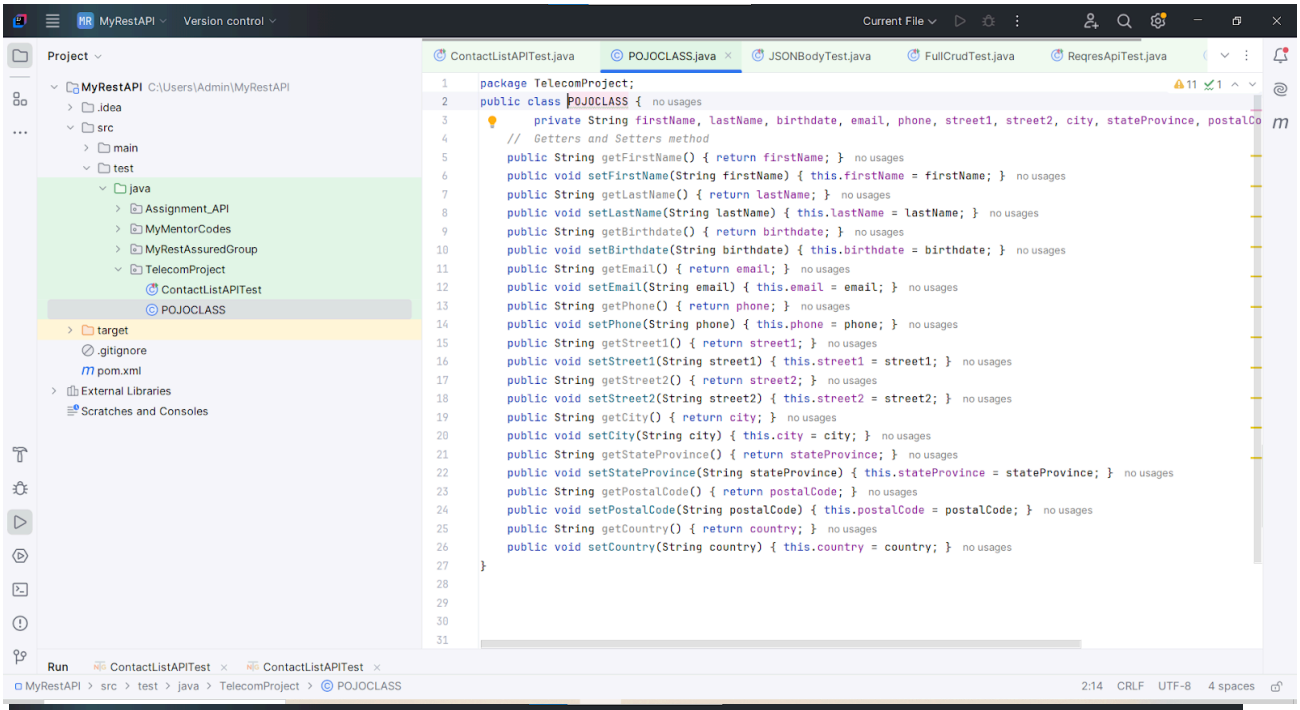
Test Case 6: Get Contact List



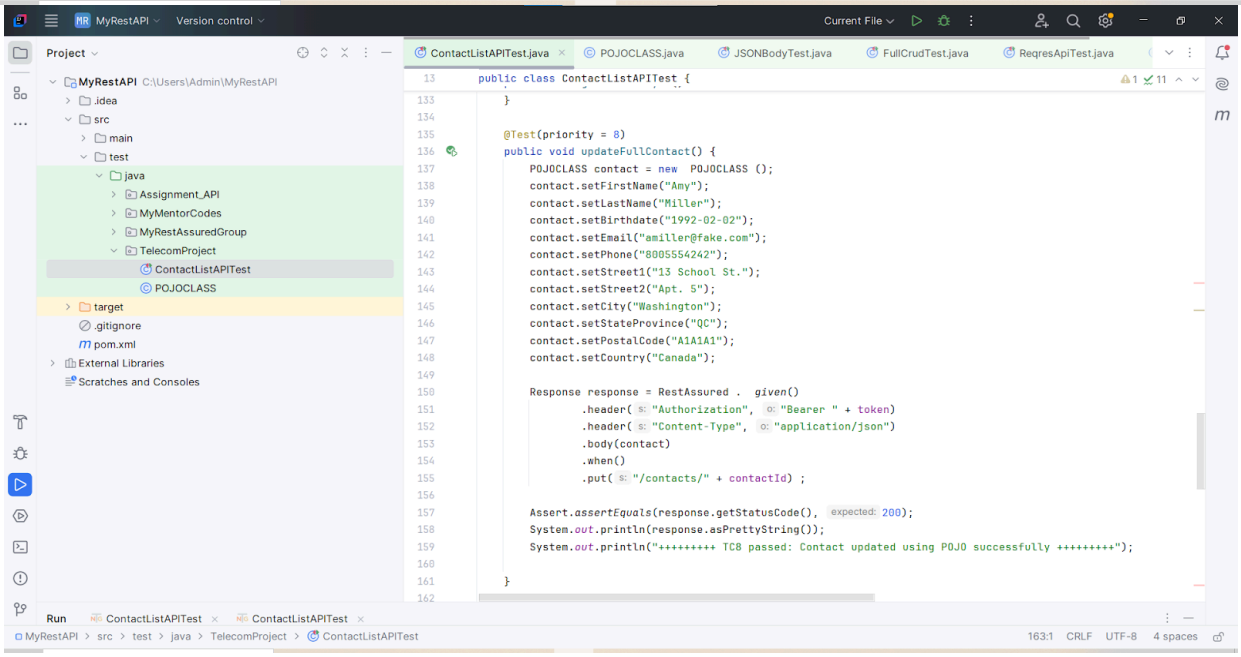
Test Case 7: Get Contact



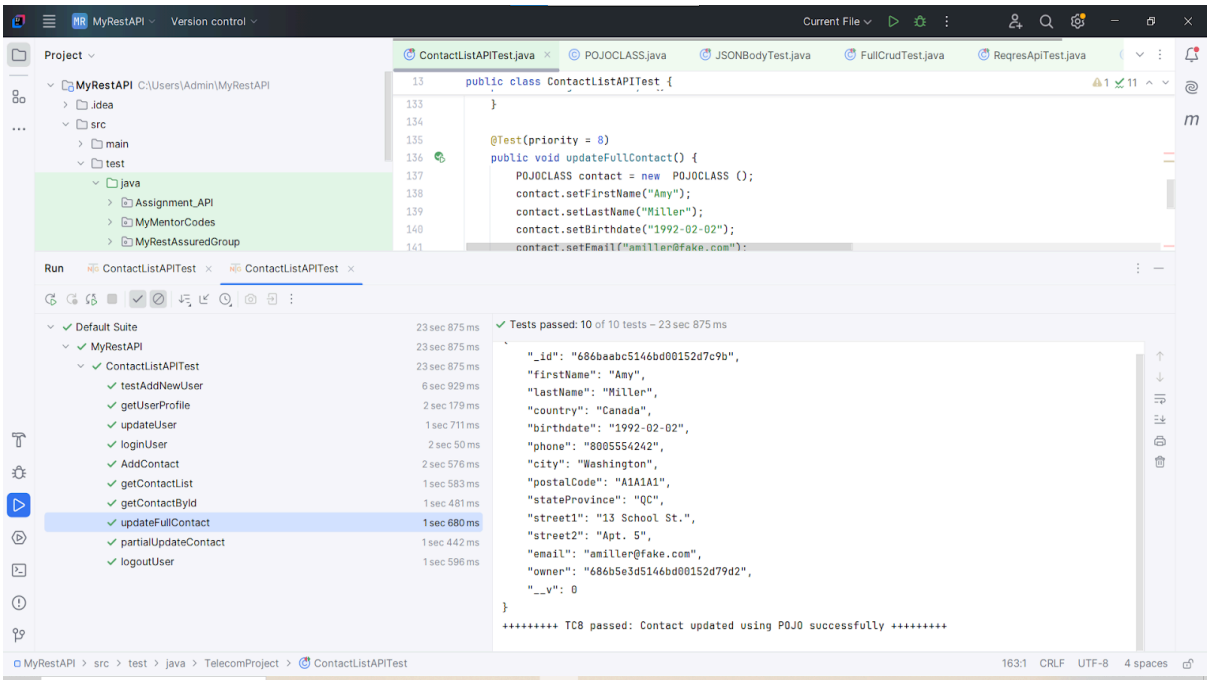
Test Case 8: Update Contact (PUT)



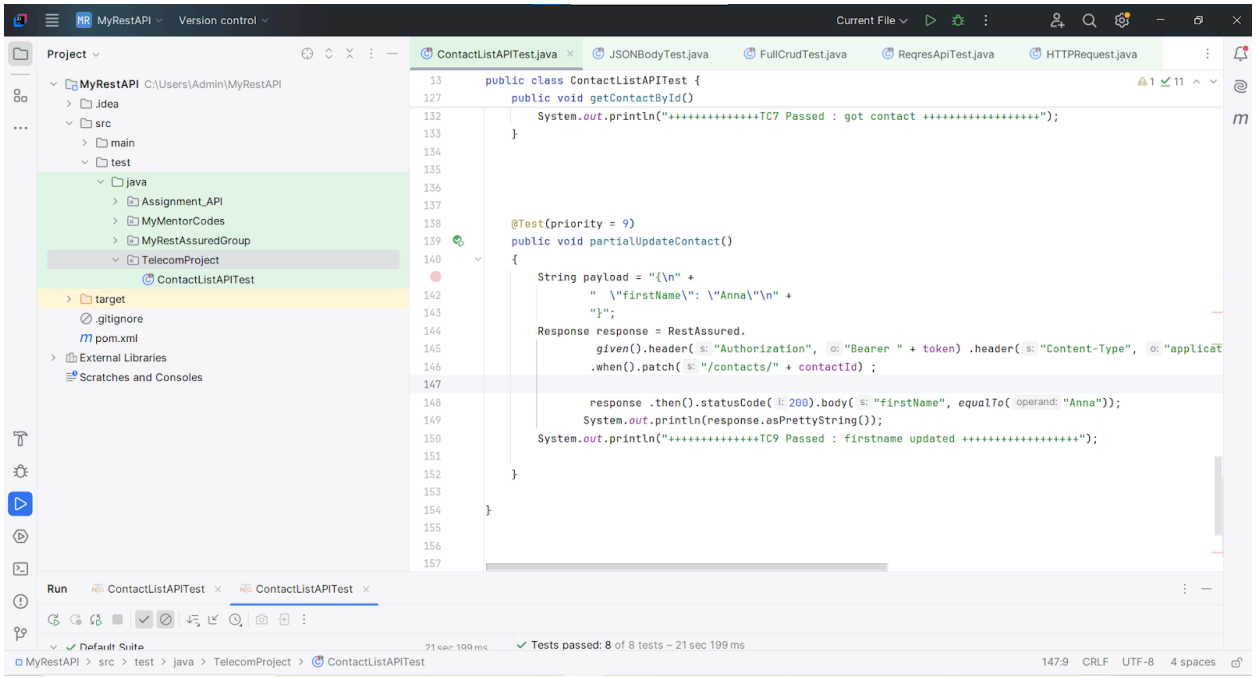
```
package TelecomProject;
public class POJOCLASS {
    private String firstName, lastName, birthdate, email, phone, street1, street2, city, stateProvince, postalCo
    // Getters and Setters method
    public String getFirstName() { return firstName; }
    public void setFirstName(String firstName) { this.firstName = firstName; }
    public String getLastName() { return lastName; }
    public void setLastName(String lastName) { this.lastName = lastName; }
    public String getBirthdate() { return birthdate; }
    public void setBirthdate(String birthdate) { this.birthdate = birthdate; }
    public String getEmail() { return email; }
    public void setEmail(String email) { this.email = email; }
    public String getPhone() { return phone; }
    public void setPhone(String phone) { this.phone = phone; }
    public String getStreet1() { return street1; }
    public void setStreet1(String street1) { this.street1 = street1; }
    public String getStreet2() { return street2; }
    public void setStreet2(String street2) { this.street2 = street2; }
    public String getCity() { return city; }
    public void setCity(String city) { this.city = city; }
    public String getStateProvince() { return stateProvince; }
    public void setStateProvince(String stateProvince) { this.stateProvince = stateProvince; }
    public String getPostalCode() { return postalCode; }
    public void setPostalCode(String postalCode) { this.postalCode = postalCode; }
    public String getCountry() { return country; }
    public void setCountry(String country) { this.country = country; }
}
```

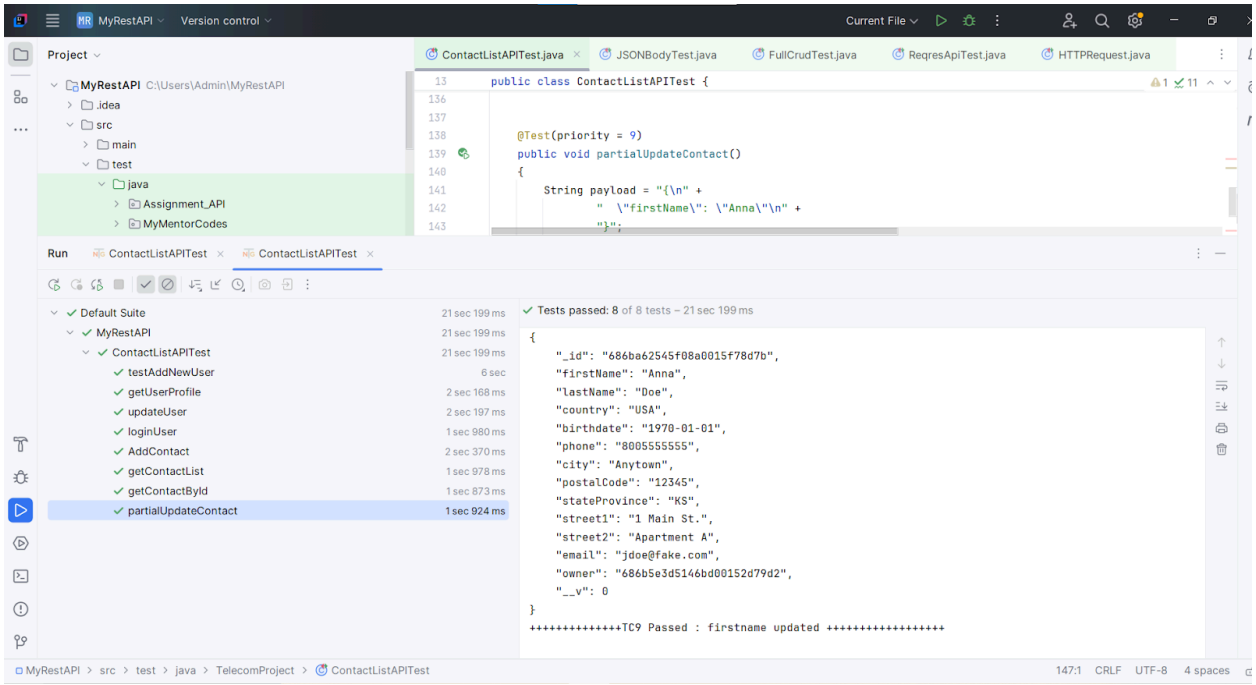


```
public class ContactListAPITest {
    }

    @Test(priority = 8)
    public void updateFullContact() {
        POJOCLASS contact = new  POJOCLASS ();
        contact.setFirstName("Amy");
        contact.setLastName("Miller");
        contact.setBirthdate("1992-02-02");
        contact.setEmail("amiller@fake.com");
        contact.setPhone("8005554242");
        contact.setStreet1("13 School St.");
        contact.setStreet2("Apt. 5");
        contact.setCity("Washington");
        contact.setStateProvince("QC");
        contact.setPostalCode("A1A1A1");
        contact.setCountry("Canada");

        Response response = RestAssured .  given()
                .header( s: "Authorization",  o: "Bearer " + token)
                .header( s: "Content-Type",  o: "application/json")
                .body(contact)
                .when()
                .put( s: "/contacts/" + contactId) ;

        Assert.assertEquals(response.getStatusCode(),  expected: 200);
        System.out.println(response.asPrettyString());
        System.out.println("+++++++++ TC8 passed: Contact updated using POJO successfully +++++++++");

    }
```

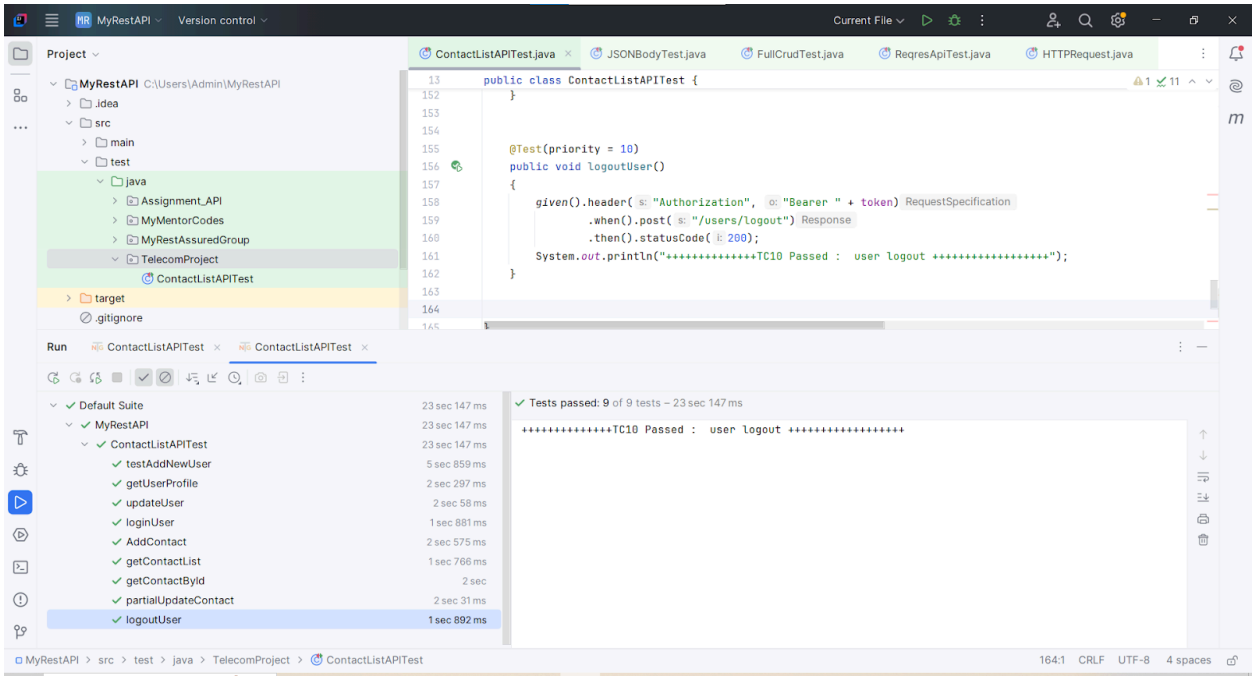


Test Case 9: Update Contact(PATCH)





Test Case 10: Logout User

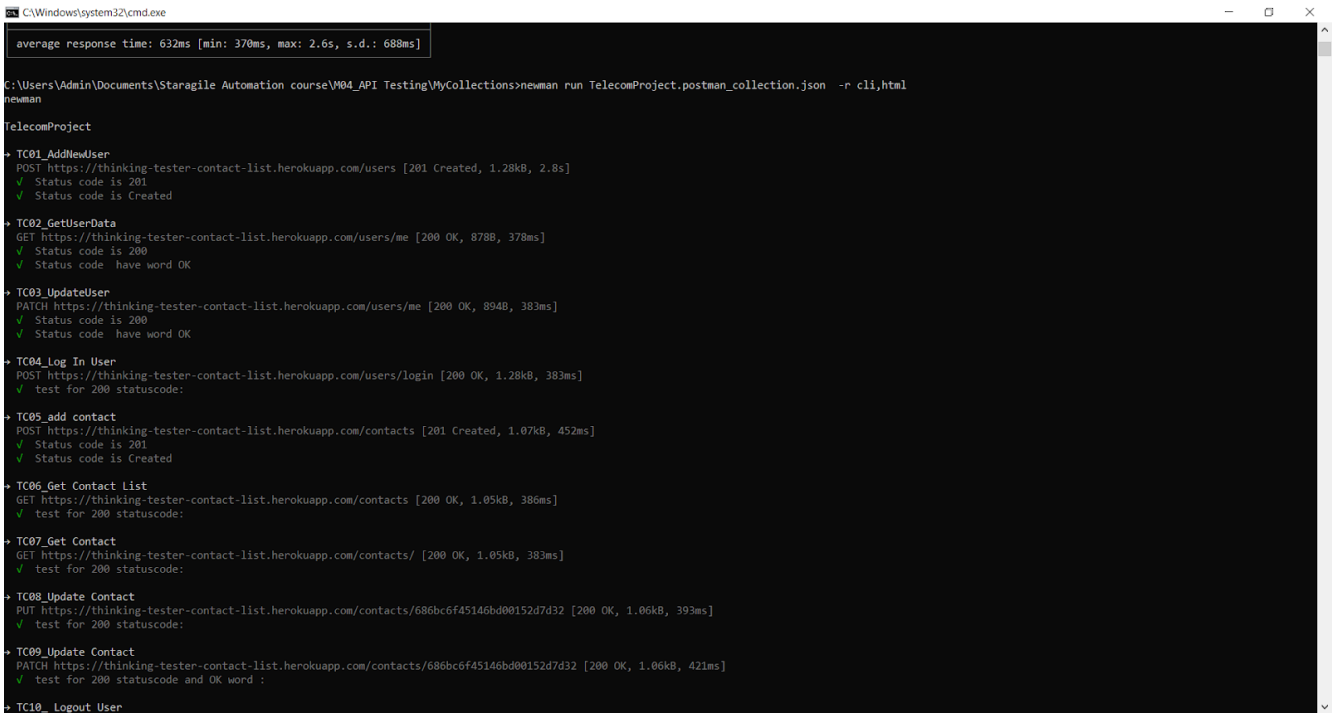


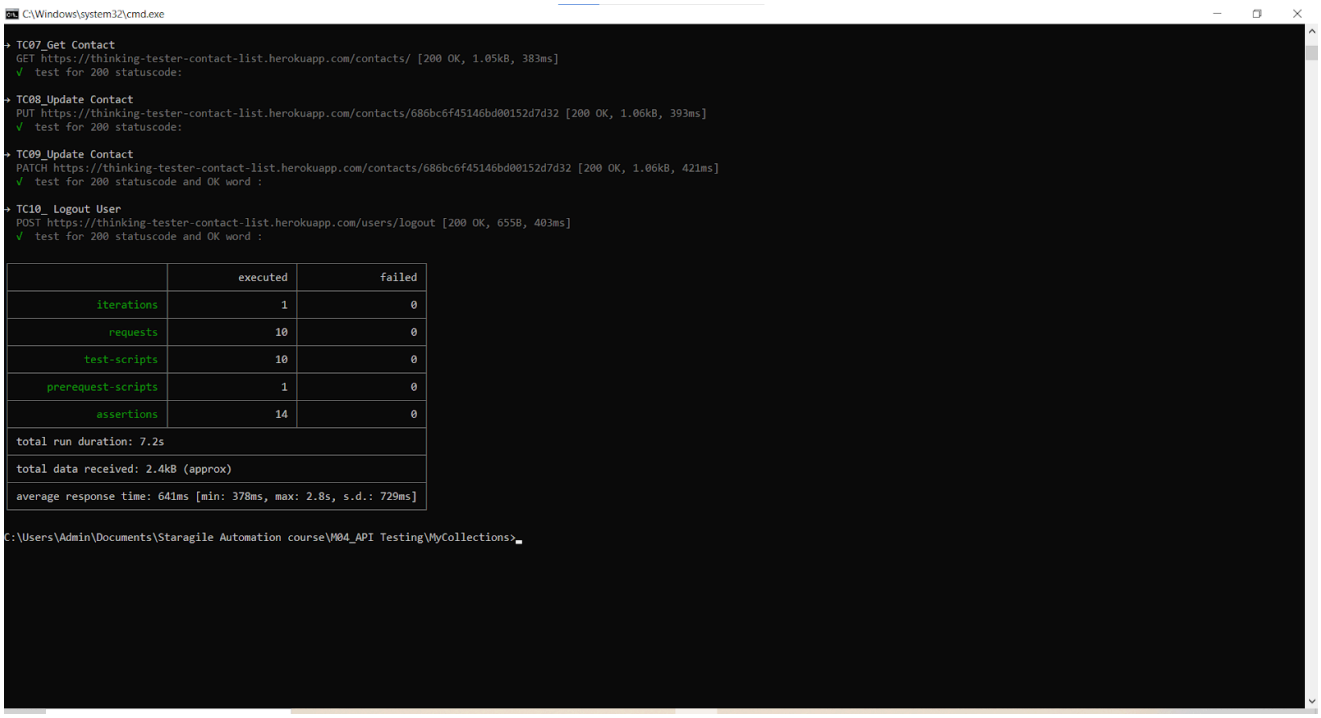
📊 7.Test Result Analysis & Reporting

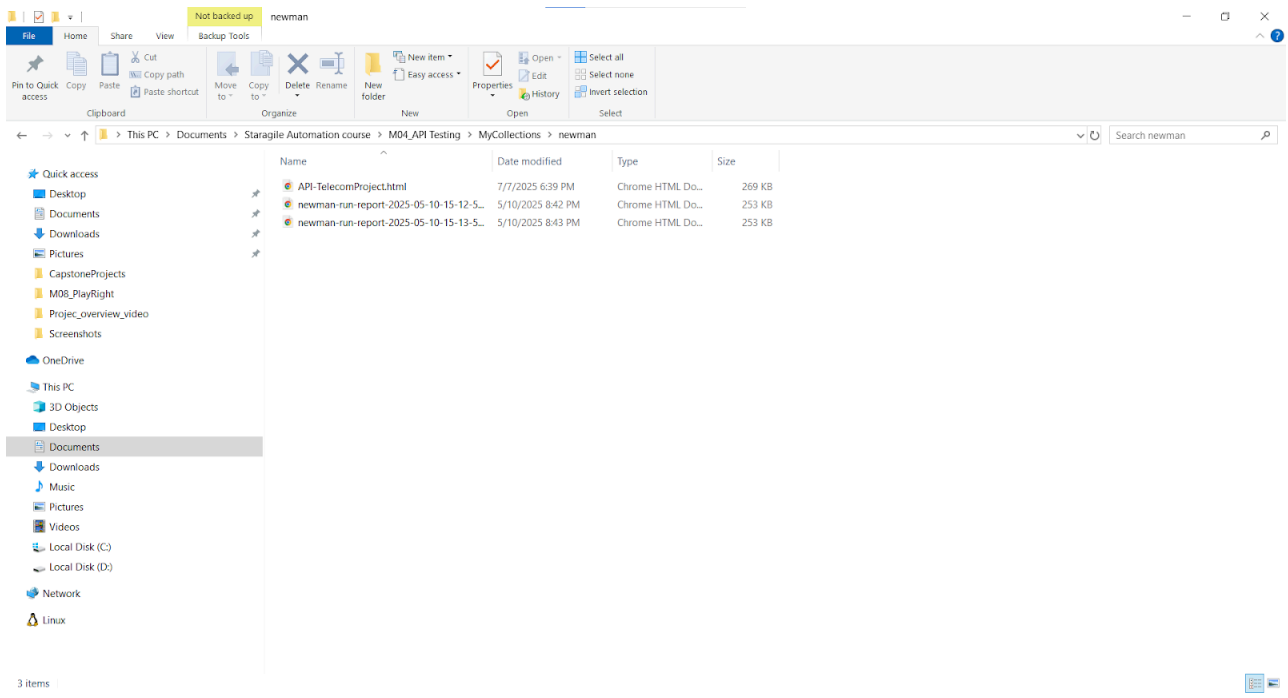
All designed test cases were executed using **Postman** & **rest-assured** Framework
The API worked as expected for valid scenarios. Proper error codes were returned for invalid and unauthorised access.
Total Test Cases: 10
- Passed: 10
- Failed: 0

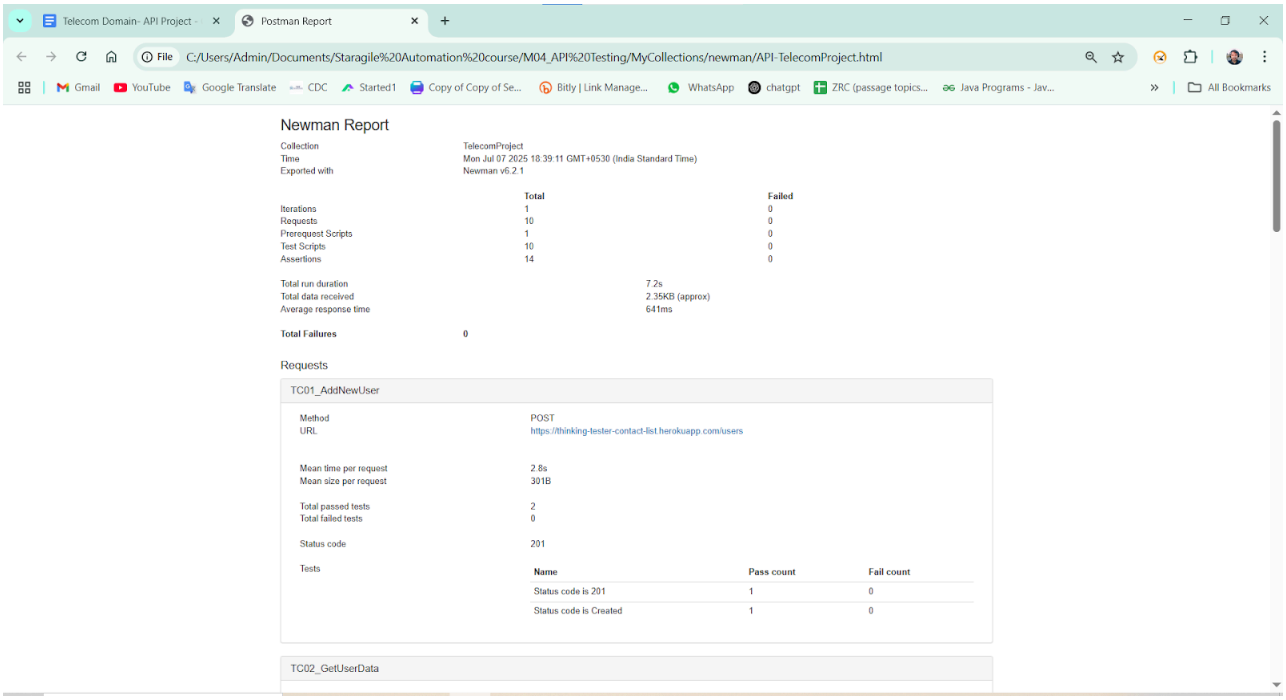
Postman: Report generated from Newman(command line tool).

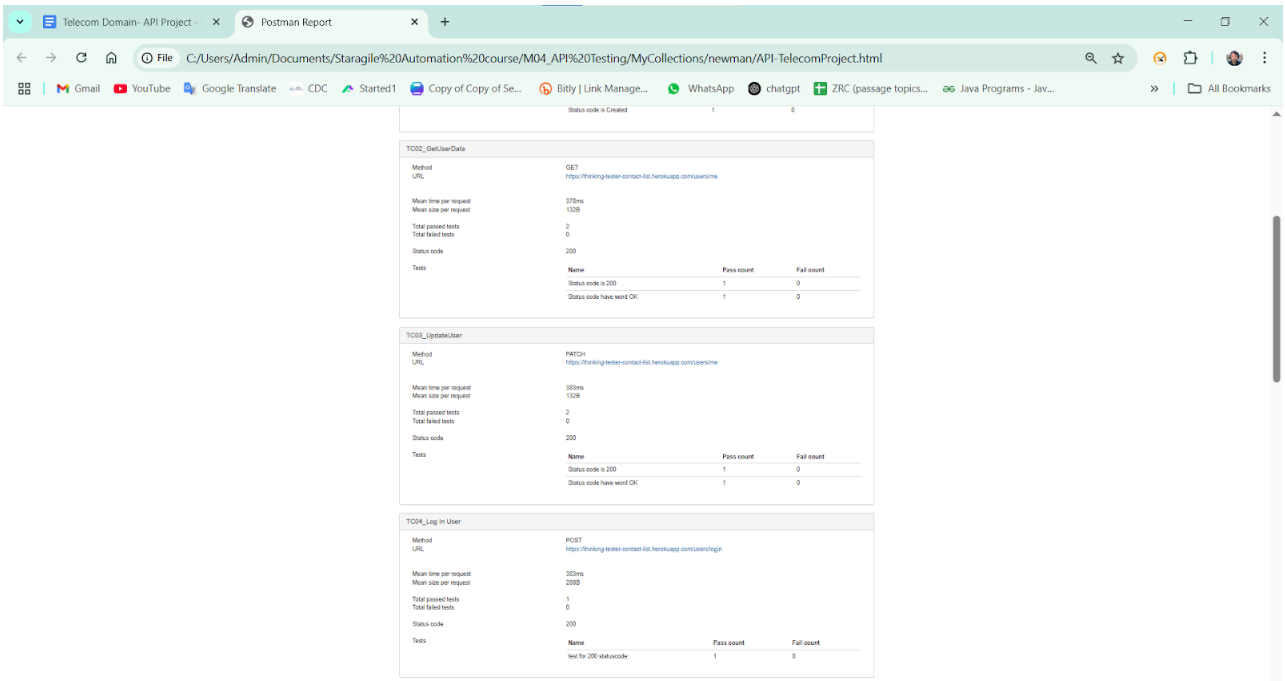
Link:
file:///C:/Users/Admin/Documents/Staragile%20Automation%20course/M04_API%20Testing/MyCollections/newman/API-TelecomProject.html

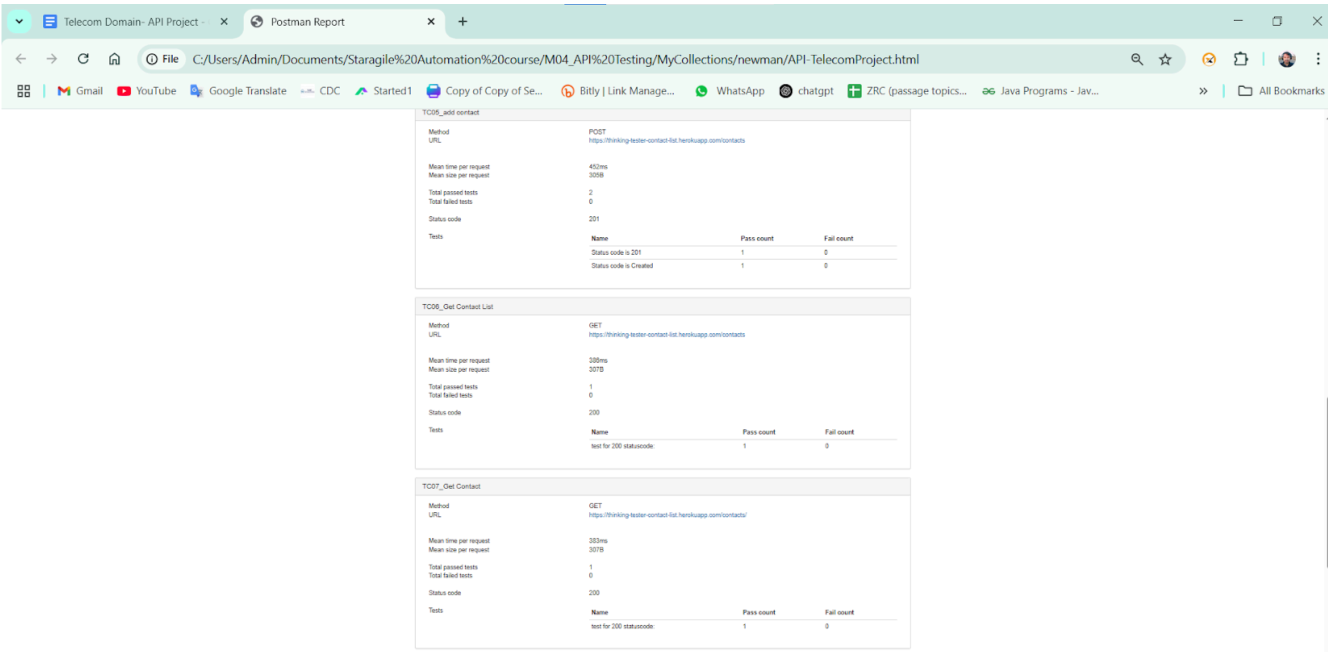


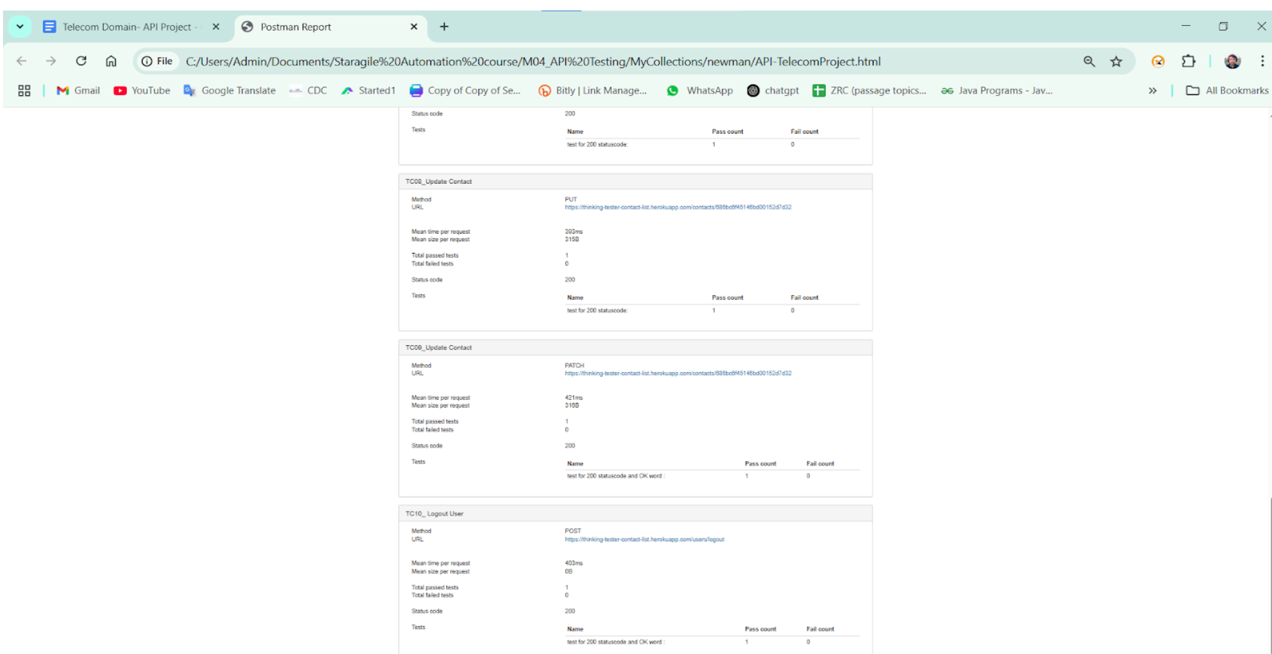

C:\Windows\system32\cmd.exe
→ TC07_Get Contact
GET https://thinking-tester-contact-list.herokuapp.com/contacts/ [200 OK, 1.05kB, 383ms]
✓ test for 200 statuscode:
→ TC08_Update Contact
PUT https://thinking-tester-contact-list.herokuapp.com/contacts/686bc6f45146bd00152d7d32 [200 OK, 1.06kB, 393ms]
✓ test for 200 statuscode:
→ TC09_Update Contact
PATCH https://thinking-tester-contact-list.herokuapp.com/contacts/686bc6f45146bd00152d7d32 [200 OK, 1.06kB, 421ms]
✓ test for 200 statuscode and OK word :
→ TC10_ Logout User
POST https://thinking-tester-contact-list.herokuapp.com/users/logout [200 OK, 655B, 403ms]
✓ test for 200 statuscode and OK word :
executed failed
iterations 1 0
requests 10 0
test-scripts 10 0
prerequest-scripts 1 0
assertions 14 0
total run duration: 7.2s
total data received: 2.4kB (approx)
average response time: 641ms [min: 378ms, max: 2.8s, s.d.: 729ms]
C:\Users\Admin\Documents\Staragile Automation course\M04_API Testing\MyCollections>


Not backed up
newman
File
Home
Share
View
Backup Tools
This PC › Documents › Staragile Automation course › M04_API Testing › MyCollections › newman
Search newman
Quick access
Desktop
Documents
Downloads
Pictures
CapstoneProjects
M08_PlayRight
Projec_overview_video
Screenshots
OneDrive
This PC
3D Objects
Desktop
Documents
Downloads
Music
Pictures
Videos
Local Disk (C:)
Local Disk (D:)
Network
Linux
Name
Date modified
Type
Size
API-TelecomProject.html 7/7/2025 6:39 PM Chrome HTML Do... 269 KB
newman-run-report-2025-05-10-15-12-5... 5/10/2025 8:42 PM Chrome HTML Do... 253 KB
newman-run-report-2025-05-10-15-13-5... 5/10/2025 8:43 PM Chrome HTML Do... 253 KB
3 items


Telecom Domain- API Project
Postman Report
File C:/Users/Admin/Documents/Staragile%20Automation%20course/M04_API%20Testing/MyCollections/newman/API-TelecomProject.html
Gmail YouTube Google Translate CDC Started1 Copy of Copy of Se... Bitly | Link Manage... WhatsApp chatgpt ZRC (passage topics... Java Programs - Jav... All Bookmarks
Newman Report
Collection TelecomProject
Time Mon Jul 07 2025 18:39:11 GMT+0530 (India Standard Time)
Exported with Newman v6.2.1
Total Failed
Iterations 1 0
Requests 10 0
Prerequest Scripts 1 0
Test Scripts 10 0
Assertions 14 0
Total run duration 7.2s
Total data received 2.35KB (approx)
Average response time 641ms
Total Failures 0
Requests
TC01_AddNewUser
Method POST
URL https://thinking-tester-contact-list.herokuapp.com/users
Mean time per request 2.8s
Mean size per request 301B
Total passed tests 2
Total failed tests 0
Status code 201
Tests
Name Pass count Fail count
Status code is 201 1 0
Status code is Created 1 0
TC02_GetUserData

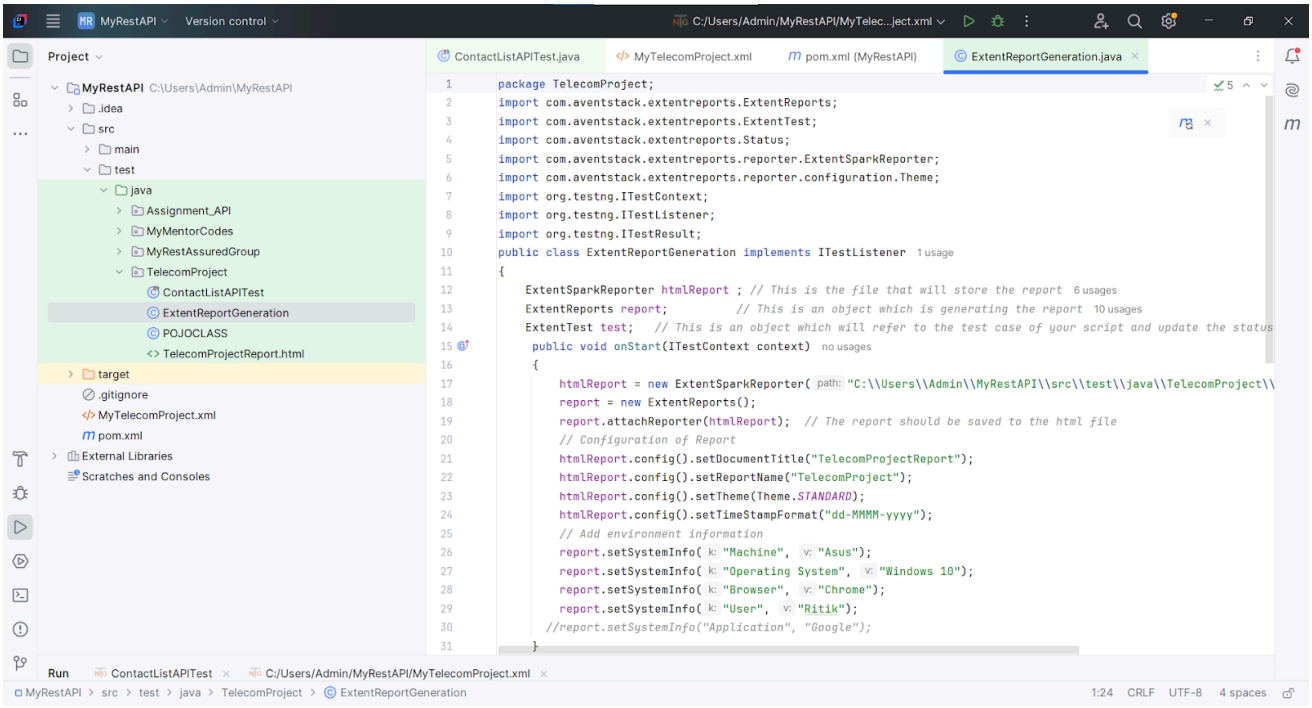

Telecom Domain- API Project
Postman Report
File C:/Users/Admin/Documents/Staragile%20Automation%20course/M04_API%20Testing/MyCollections/newman/API-TelecomProject.html
Gmail YouTube Google Translate CDC Started1 Copy of Copy of Se... Bitly | Link Manage... WhatsApp chatgpt ZRC (passage topics... Java Programs - Jav... All Bookmarks
Status code is Created 1 0
TC02_GetUserData
Method GET
URL https://thinking-tester-contact-list.herokuapp.com/users/me
Mean time per request 378ms
Mean size per request 132B
Total passed tests 2
Total failed tests 0
Status code 200
Tests
Name Pass count Fail count
Status code is 200 1 0
Status code have word OK 1 0
TC03_UpdateUser
Method PATCH
URL https://thinking-tester-contact-list.herokuapp.com/users/me
Mean time per request 383ms
Mean size per request 132B
Total passed tests 2
Total failed tests 0
Status code 200
Tests
Name Pass count Fail count
Status code is 200 1 0
Status code have word OK 1 0
TC04_Log In User
Method POST
URL https://thinking-tester-contact-list.herokuapp.com/users/login
Mean time per request 383ms
Mean size per request 280B
Total passed tests 1
Total failed tests 0
Status code 200
Tests
Name Pass count Fail count
test for 200 statuscode 1 0


Telecom Domain- API Project -
Postman Report
C:/Users/Admin/Documents/Staragile%20Automation%20course/M04_API%20Testing/MyCollections/newman/API-TelecomProject.html
TC05_add contact
Method POST
URL https://thinking-tester-contact-list.herokuapp.com/contacts
Mean time per request 452ms
Mean size per request 305B
Total passed tests 2
Total failed tests 0
Status code 201
Tests
Name Pass count Fail count
Status code is 201 1 0
Status code is Created 1 0
TC06_Get Contact List
Method GET
URL https://thinking-tester-contact-list.herokuapp.com/contacts
Mean time per request 388ms
Mean size per request 307B
Total passed tests 1
Total failed tests 0
Status code 200
Tests
Name Pass count Fail count
test for 200 statuscode: 1 0
TC07_Get Contact
Method GET
URL https://thinking-tester-contact-list.herokuapp.com/contacts/
Mean time per request 383ms
Mean size per request 307B
Total passed tests 1
Total failed tests 0
Status code 200
Tests
Name Pass count Fail count
test for 200 statuscode: 1 0

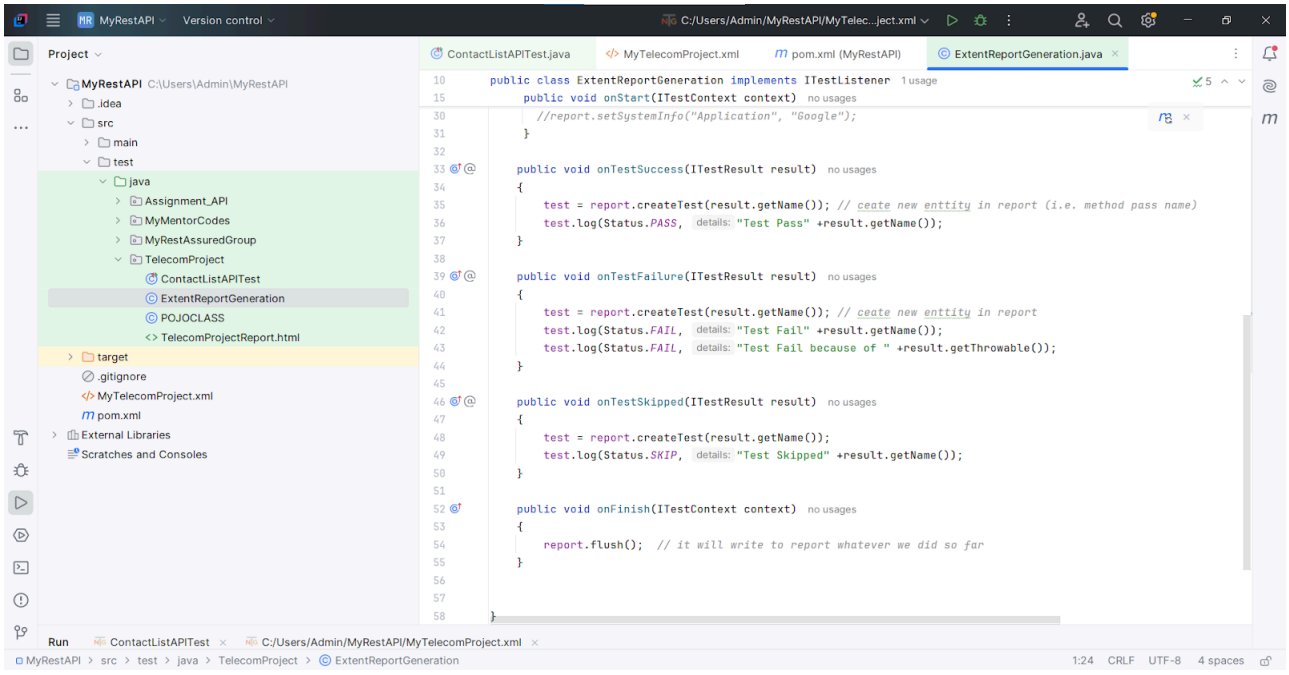

Telecom Domain- API Project -
Postman Report
C:/Users/Admin/Documents/Staragile%20Automation%20course/M04_API%20Testing/MyCollections/newman/API-TelecomProject.html
Status code 200
Tests
Name Pass count Fail count
test for 200 statuscode: 1 0
TC08_Update Contact
Method PUT
URL https://thinking-tester-contact-list.herokuapp.com/contacts/688bc8f45146bd00152d7d32
Mean time per request 393ms
Mean size per request 315B
Total passed tests 1
Total failed tests 0
Status code 200
Tests
Name Pass count Fail count
test for 200 statuscode: 1 0
TC09_Update Contact
Method PATCH
URL https://thinking-tester-contact-list.herokuapp.com/contacts/688bc8f45146bd00152d7d32
Mean time per request 421ms
Mean size per request 316B
Total passed tests 1
Total failed tests 0
Status code 200
Tests
Name Pass count Fail count
test for 200 statuscode and OK word : 1 0
TC10_ Logout User
Method POST
URL https://thinking-tester-contact-list.herokuapp.com/users/logout
Mean time per request 403ms
Mean size per request 0B
Total passed tests 1
Total failed tests 0
Status code 200
Tests
Name Pass count Fail count
test for 200 statuscode and OK word : 1 0

Rest Assured: Report via TestNG/Extent

Step:1 Create a Utility Class with Extent Report Setup

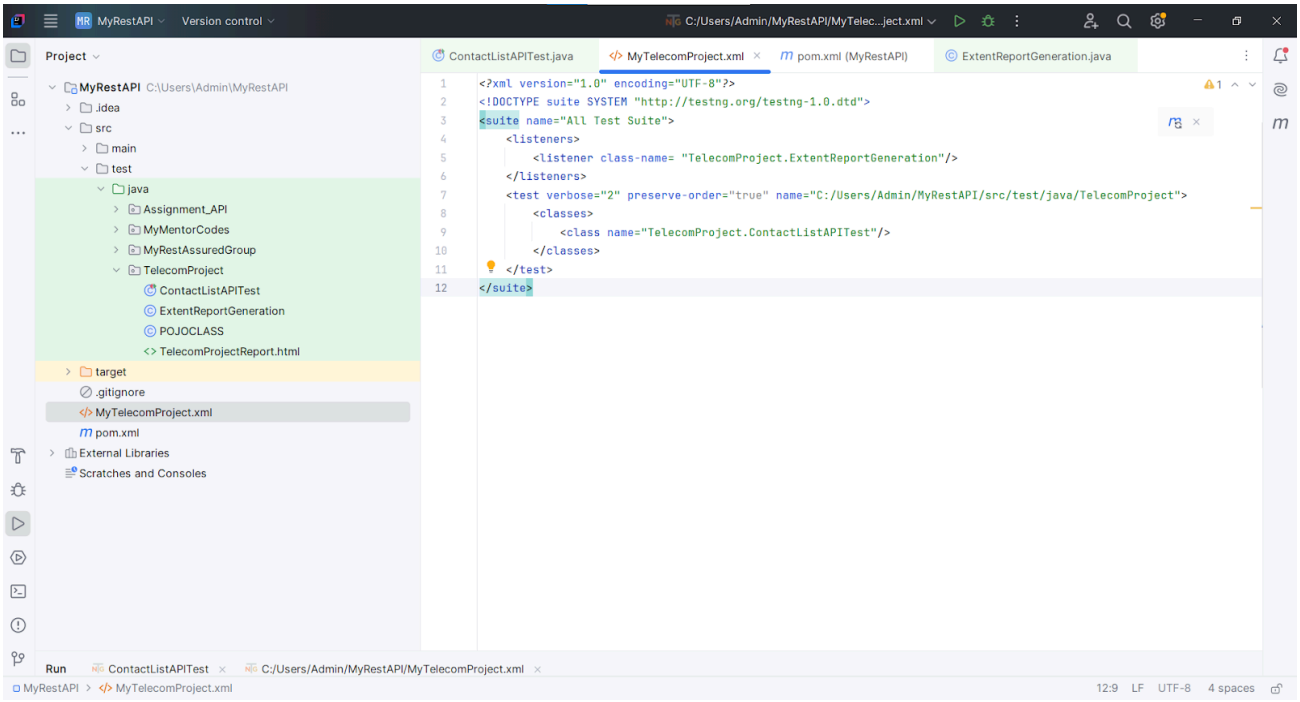


```
package TelecomProject;
import com.aventstack.extentreports.ExtentReports;
import com.aventstack.extentreports.ExtentTest;
import com.aventstack.extentreports.Status;
import com.aventstack.extentreports.reporter.ExtentSparkReporter;
import com.aventstack.extentreports.reporter.configuration.Theme;
import org.testng.ITestContext;
import org.testng.ITestListener;
import org.testng.ITestResult;
public class ExtentReportGeneration implements ITestListener  1 usage
{
    ExtentSparkReporter htmlReport ; // This is the file that will store the report  6 usages
    ExtentReports report;          // This is an object which is generating the report  10 usages
    ExtentTest test;   // This is an object which will refer to the test case of your script and update the status
     public void onStart(ITestContext context)  no usages
     {
        htmlReport = new ExtentSparkReporter( path: "C:\\Users\\Admin\\MyRestAPI\\src\\test\\java\\TelecomProject\\
        report = new ExtentReports();
        report.attachReporter(htmlReport);  // The report should be saved to the html file
        // Configuration of Report
        htmlReport.config().setDocumentTitle("TelecomProjectReport");
        htmlReport.config().setReportName("TelecomProject");
        htmlReport.config().setTheme(Theme.STANDARD);
        htmlReport.config().setTimeStampFormat("dd-MMMM-yyyy");
        // Add environment information
        report.setSystemInfo( k: "Machine",  v: "Asus");
        report.setSystemInfo( k: "Operating System",  v: "Windows 10");
        report.setSystemInfo( k: "Browser",  v: "Chrome");
        report.setSystemInfo( k: "User",  v: "Ritik");
      //report.setSystemInfo("Application", "Google");
     }
```



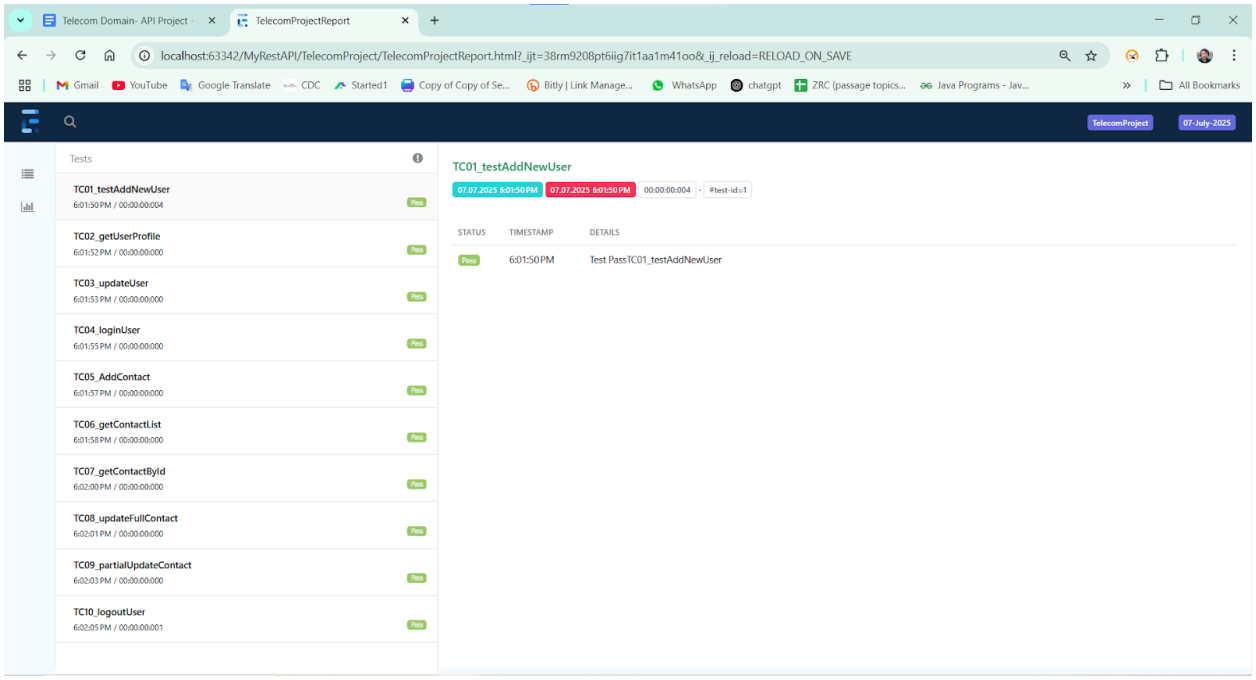
```
public class ExtentReportGeneration implements ITestListener  1 usage
     public void onStart(ITestContext context)  no usages
      //report.setSystemInfo("Application", "Google");
     }

    public void onTestSuccess(ITestResult result)  no usages
    {
        test = report.createTest(result.getName()); // create new enttity in report (i.e. method pass name)
        test.log(Status.PASS,  details: "Test Pass" +result.getName());
    }

    public void onTestFailure(ITestResult result)  no usages
    {
        test = report.createTest(result.getName()); // create new enttity in report
        test.log(Status.FAIL,  details: "Test Fail" +result.getName());
        test.log(Status.FAIL,  details: "Test Fail because of " +result.getThrowable());
    }

    public void onTestSkipped(ITestResult result)  no usages
    {
        test = report.createTest(result.getName());
        test.log(Status.SKIP,  details: "Test Skipped" +result.getName());
    }

    public void onFinish(ITestContext context)  no usages
    {
        report.flush();  // it will write to report whatever we did so far
    }

}
```

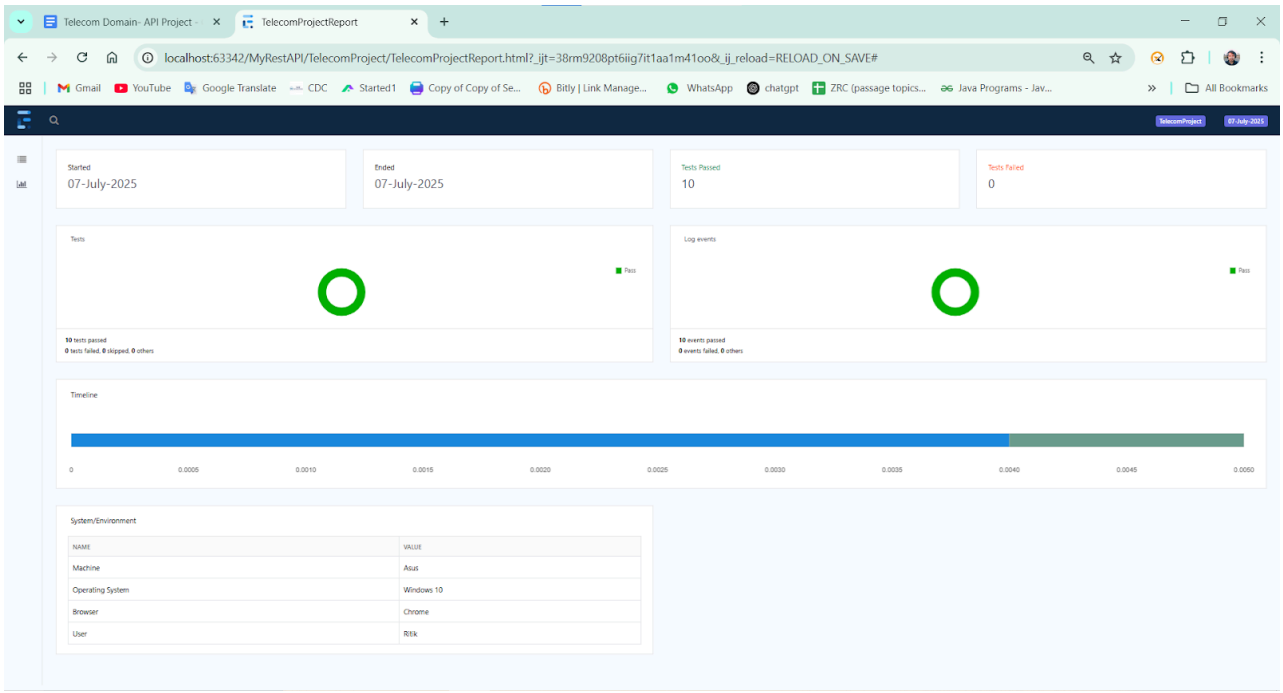
Step 2: Create `testng.xml`



Step 3: Check Report

Link:
http://localhost:63342/MyRestAPI/TelecomProject/TelecomProjectReport.html?_ijt=38rm9208pt6iig7it1aa1m41oo&_ij_reload=RELOAD_ON_SAVE





8. Conclusion

In this project, I successfully designed and implemented a comprehensive API testing framework for a telecom domain application using REST Assured, TestNG, and Postman.

The API for the Contact List Application performs well under both valid and invalid conditions. This project covered a wide range of scenarios, including user registration, authentication, contact management, data updates, and logout flows, effectively.

The test cases were structured and executed via testng.xml and integrated with Extent Reports for visual test analysis. I used the Newman tool for report generation for Postman. Dynamic data handling (like random emails) and POJO-based payloads ensured reusability and scalability. The automation scripts validated both positive and negative scenarios with proper assertion of status codes, response bodies, and tokens.

—---------- END—----------