|  |  |
| --- | --- |
| **Capstone Project** | **Student Name: Vijina P** |
| **API Testing for Contact List Application** | |

**Github repository**

The source code and this document has been uploaded to the following git repository;

|  |  |
| --- | --- |
| Url | <https://github.com/vijinabalakrishnan/Capstone_Projects/tree/main/API_Testing_Contact_List_Application> |
| Branch | main |
| Access | Public |

**Test Case 1: Add New User**

Request Type: POST

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

Request Payload:

{

"firstName": "Test",

"lastName": "User123",

"email": "test\_email12@fake.com",

"password": "myPassword"

}

**Postman Chai Assertions**

pm.**test**("Status code is 201", **function** () {

 pm.response.to.have.status(201);

});

pm.**test**("Response is JSON", **function** () {

 pm.response.to.be.withBody;

 pm.response.to.be.json;

});

**Response**

{

    "user": {

        "\_id": "689b7123ca4d840015a9c7b2",

        "firstName": "Test",

        "lastName": "User123",

        "email": "test\_email12@fake.com",

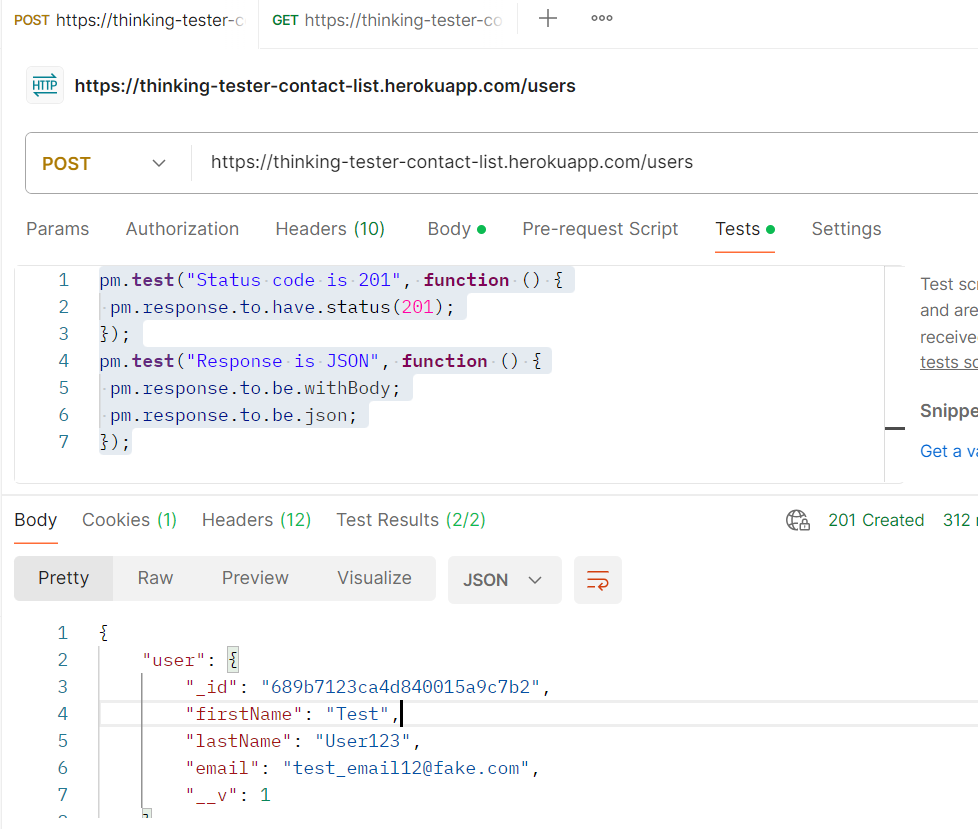
        "\_\_v": 1

    },

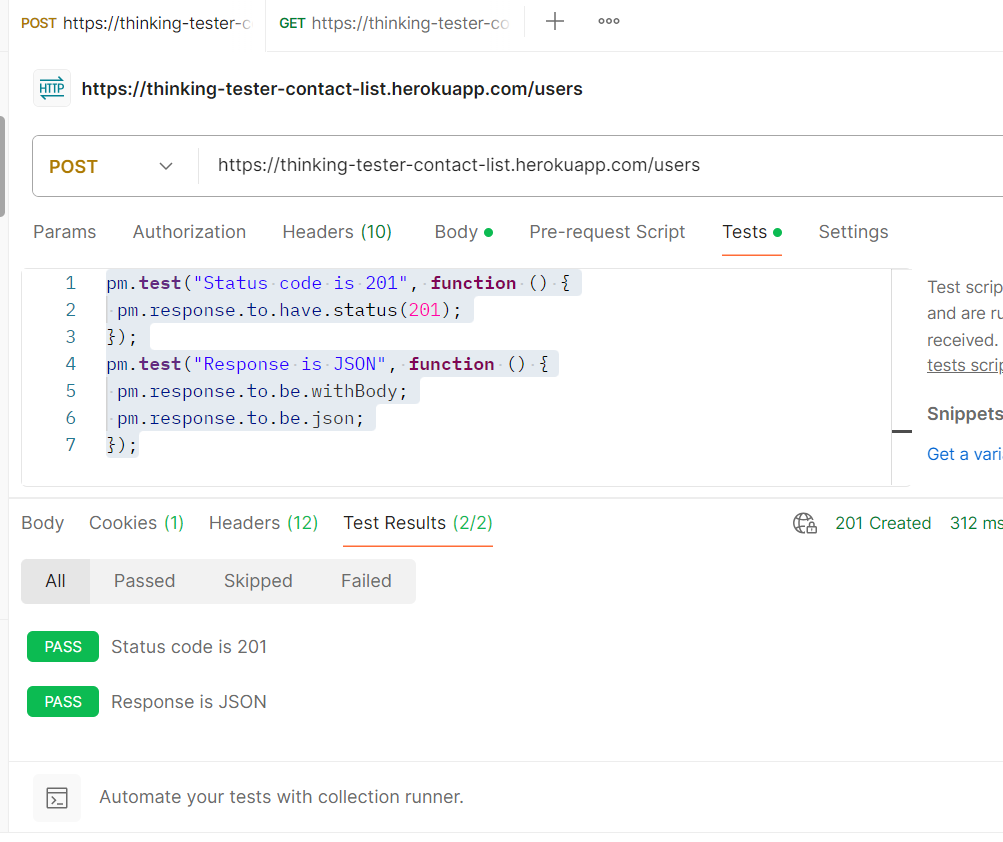
    "token": "eyJhbGciOiJIUzI1NiIsInR5cCI6IkpXVCJ9.eyJfaWQiOiI2ODliNzEyM2NhNGQ4NDAwMTVhOWM3YjIiLCJpYXQiOjE3NTUwMTc1MDd9.QS68bNqQpuc7Q0f1g4Ic\_LDFigtpPBTx0cBcgJYr6hc"

}

**Response Screenshot**



**Test Results Screenshot**



**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 message 200 OK

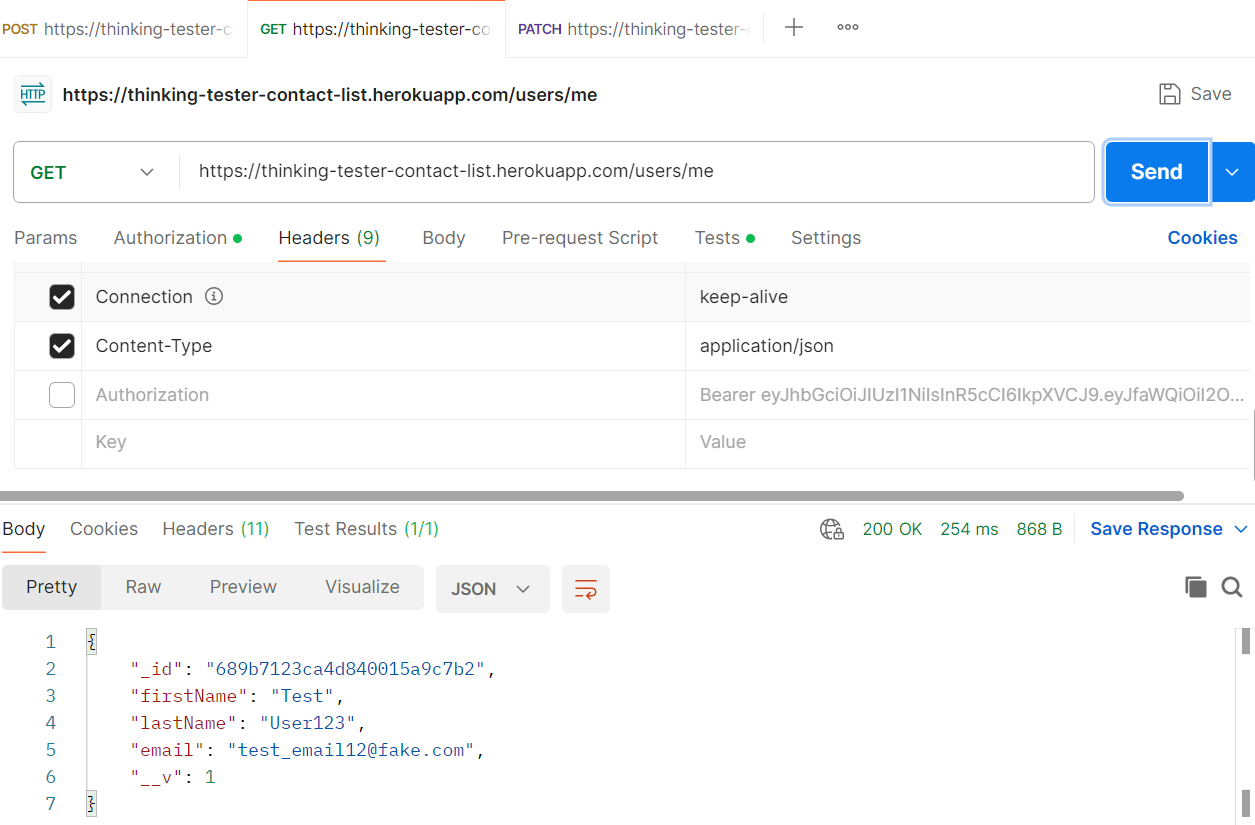
**Postman Chai Assertions**

pm.**test**("Status code is 200", **function** () {

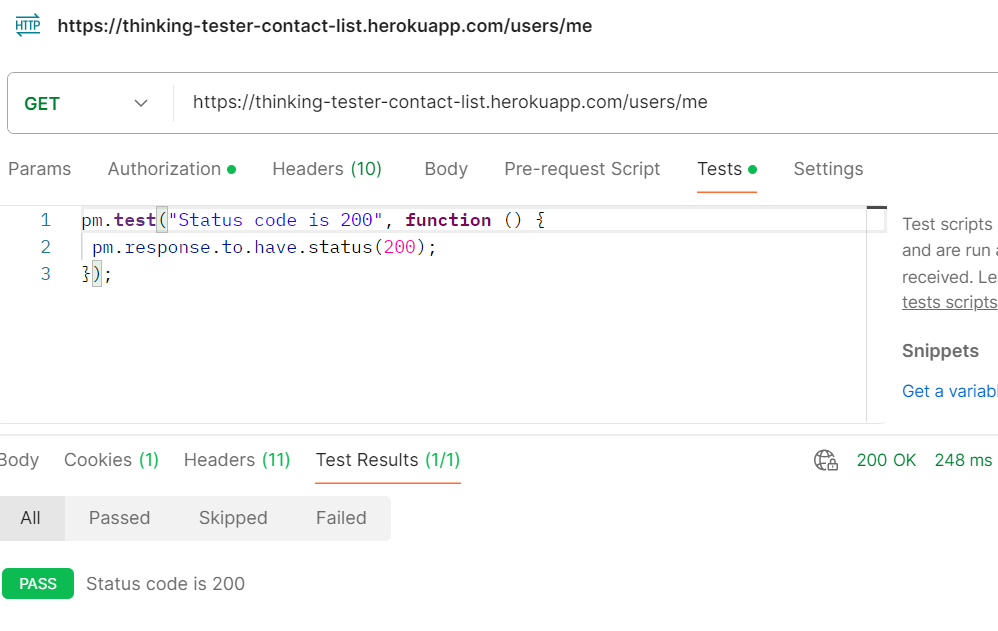
 pm.response.to.have.status(200);

});

**Response screenshot**



**Test Results**



**Test Case 3:**

Update User

Request Type: PATCH

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

Headers: Authorization Bearer {{token}}

Request Payload:

{

"firstN ame": "Updated",

"lastName": "Username",

"email": "test\_email12@fake.com",

"password": "myNewPassword"

}

Validate for status code and message 200 OK

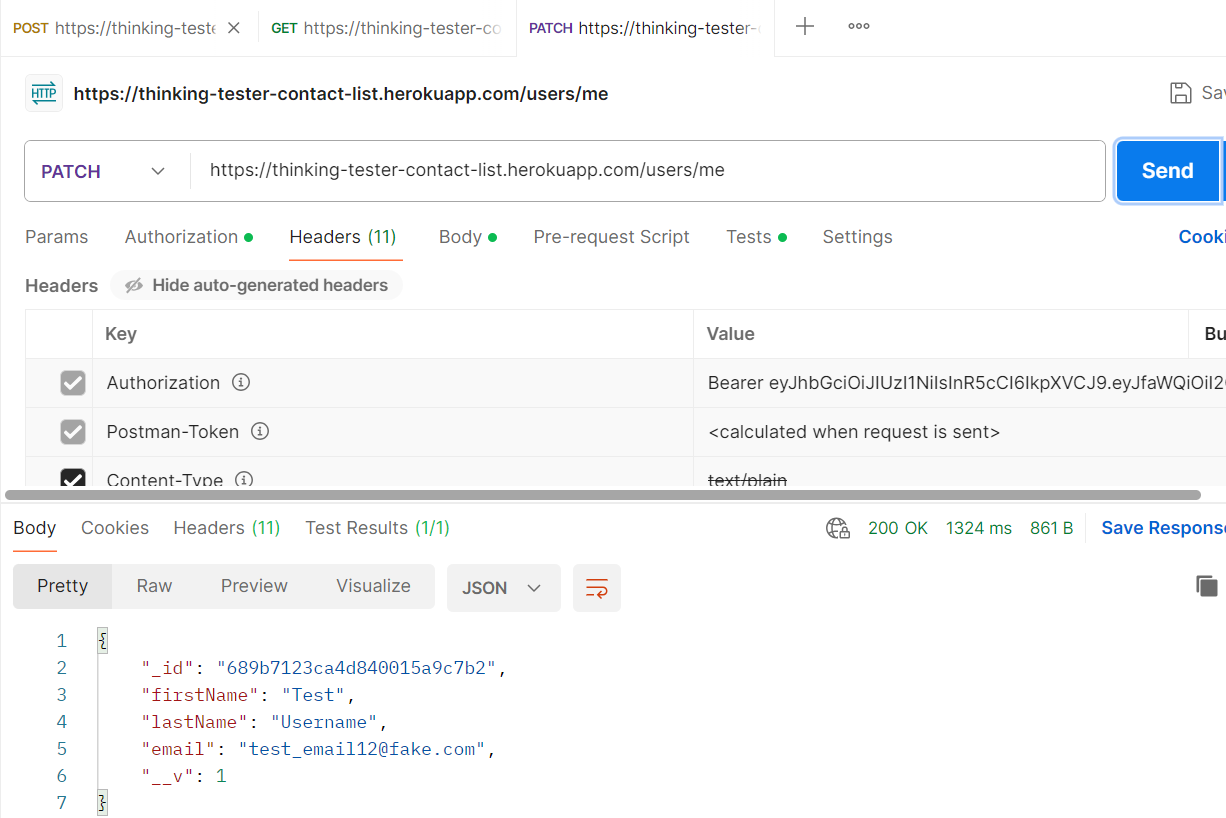
**Postman Chai Assertions**

pm.**test**("Status code is 200", **function** () {

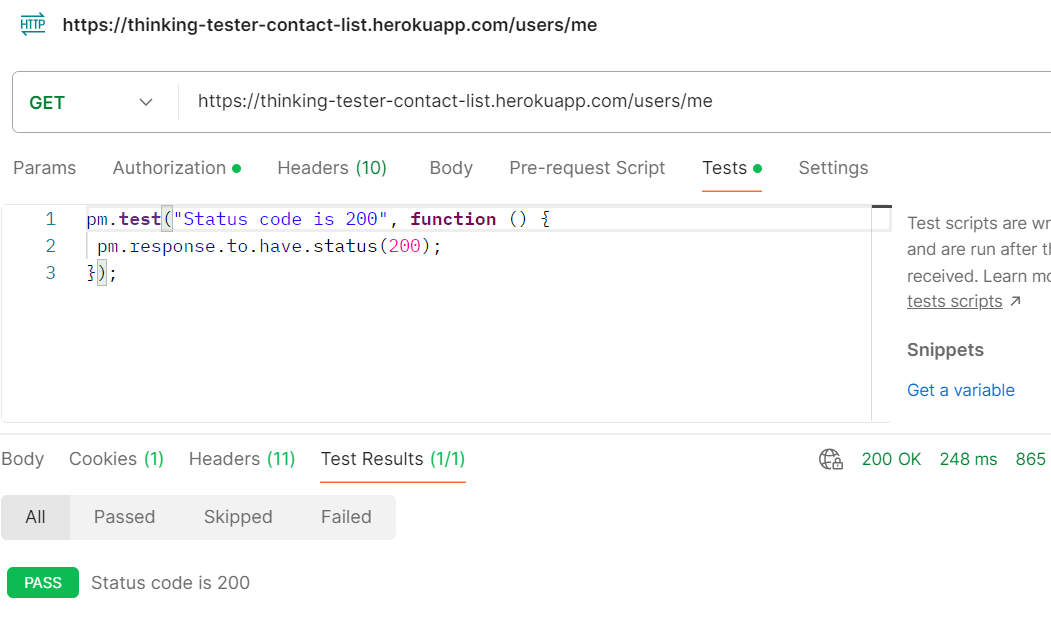
 pm.response.to.have.status(200);

});

Response:



**Test Result**



**Test Case 4:**

Log In User

Request Type: POST

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

Request Payload:

{ "email": "test\_email12@fake.com", "password": "myNewPassword" }

Test it in Postman and Get the Token and validate for status code 200 OK

**Postman Chai Assertions**

pm.**test**("Status code is 200", **function** () {

 pm.response.to.have.status(200);

});

**Response**:

{

    "user": {

        "\_id": "689b7123ca4d840015a9c7b2",

        "firstName": "Test",

        "lastName": "Username",

        "email": "test\_email12@fake.com",

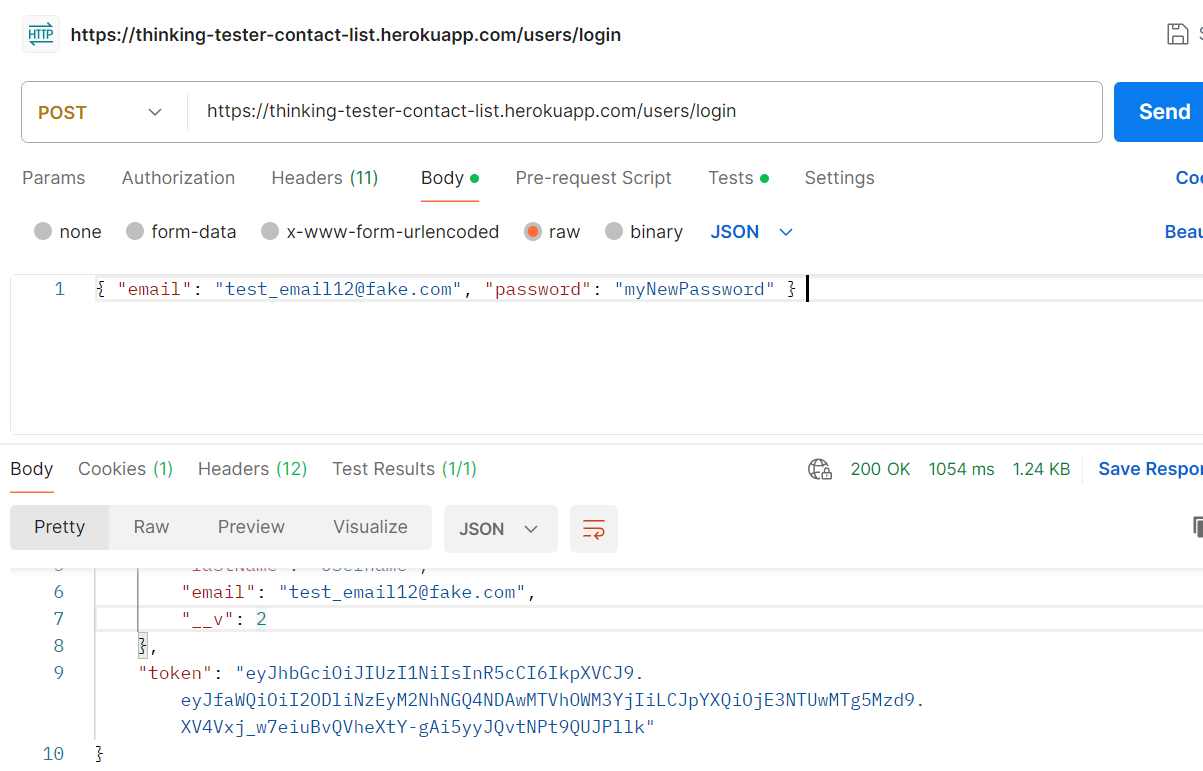
        "\_\_v": 2

    },

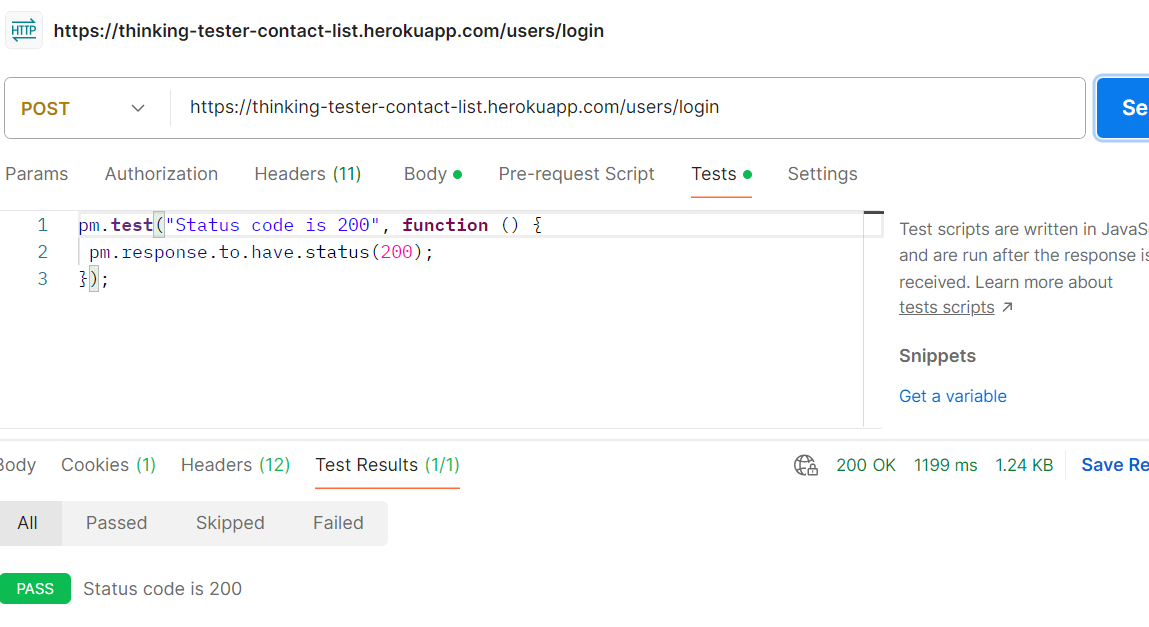
    "token": "eyJhbGciOiJIUzI1NiIsInR5cCI6IkpXVCJ9.eyJfaWQiOiI2ODliNzEyM2NhNGQ4NDAwMTVhOWM3YjIiLCJpYXQiOjE3NTUwMTg5Mzd9.XV4Vxj\_w7eiuBvQVheXtY-gAi5yyJQvtNPt9QUJPllk"

}

**Screenshot**



**Test Result**



**Test Case 5:**

Add Contact

Request Type: POST

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

Headers: Authorization Bearer {{token}}

Request Payload: { "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" }

Validate for 201 Created

**Postman Chai Assertions**

pm.**test**("Status code is 201", **function** () {

 pm.response.to.have.status(201);

});

**Response:**

{

    "\_id": "689b77e014f67c0015f5caf6",

    "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",

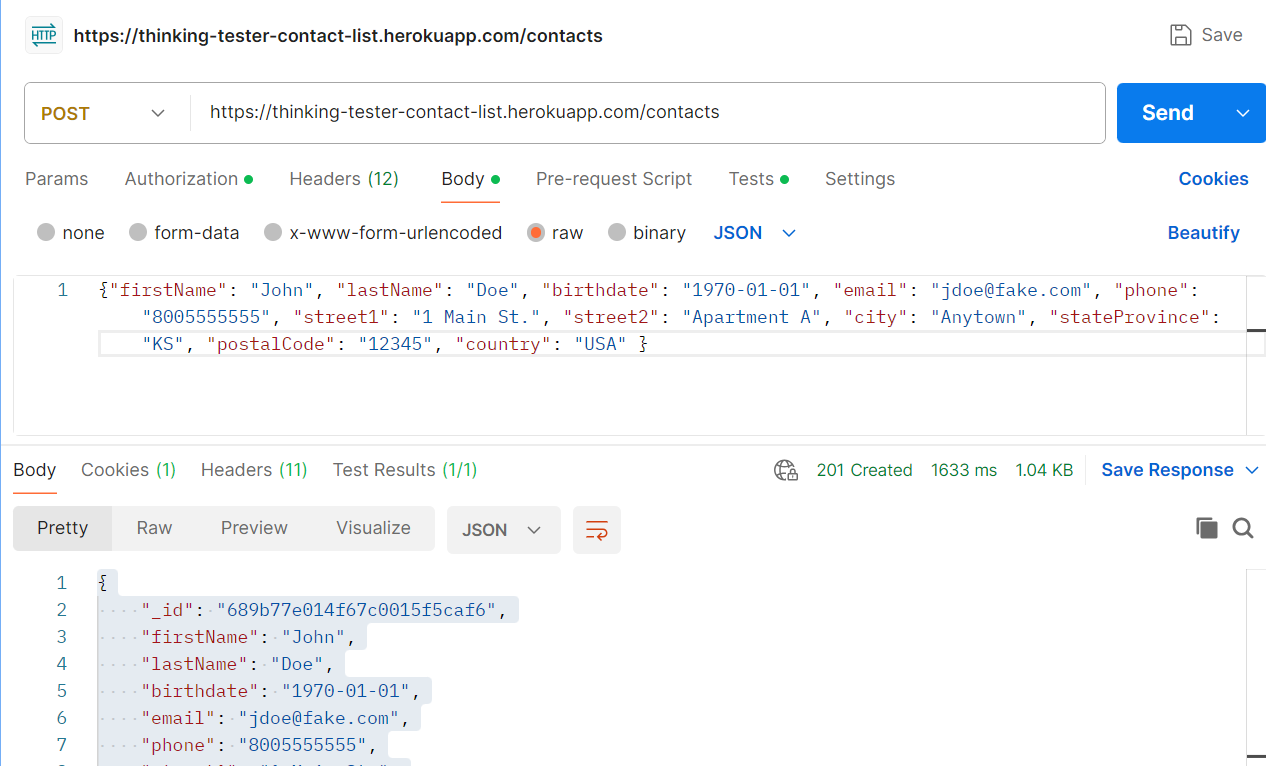
    "country": "USA",

    "owner": "689b7123ca4d840015a9c7b2",

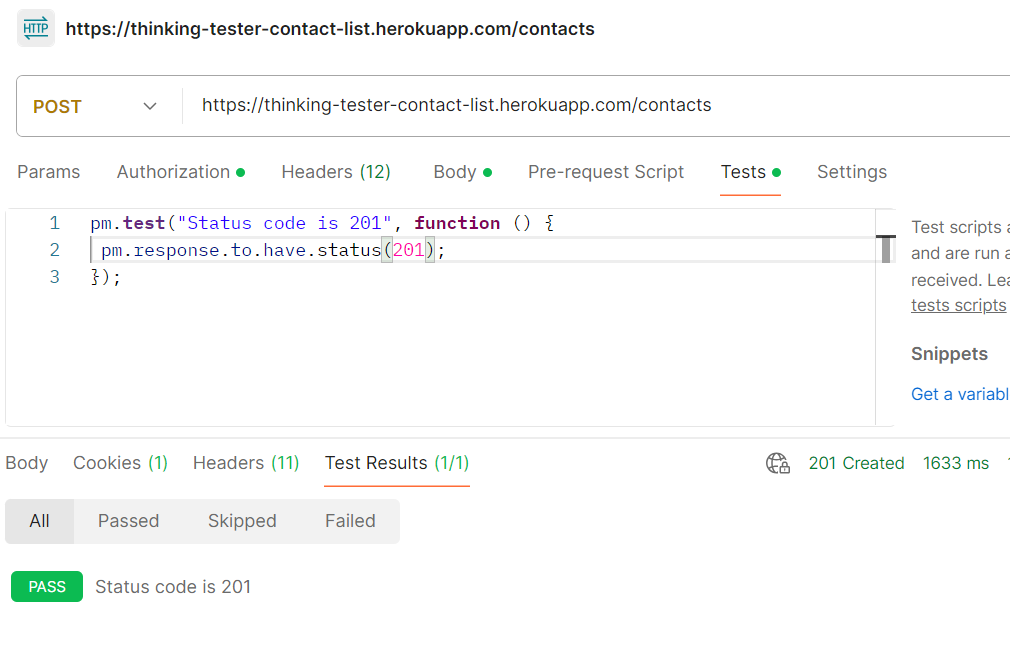
    "\_\_v": 0

}

**Screenshot**



**Test Results**



**Test Case 6:**

Get Contact List

Request Type: GET

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

Headers: Authorization Bearer {{token}}

Validate for 200 OK

**Postman Chai Assertions**

pm.**test**("Status code is 200", **function** () {

 pm.response.to.have.status(200);

});

**Response**

[

{

"\_id": "689b77e014f67c0015f5caf6",

"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",

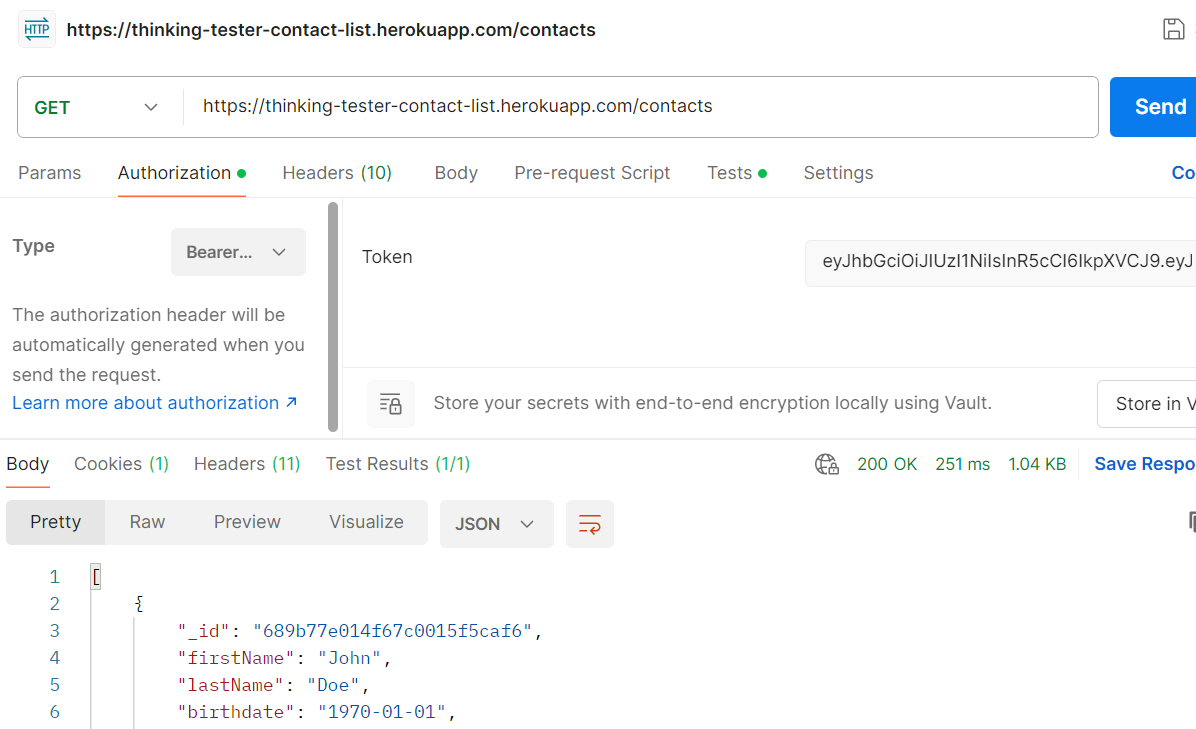
"owner": "689b7123ca4d840015a9c7b2",

"\_\_v": 0

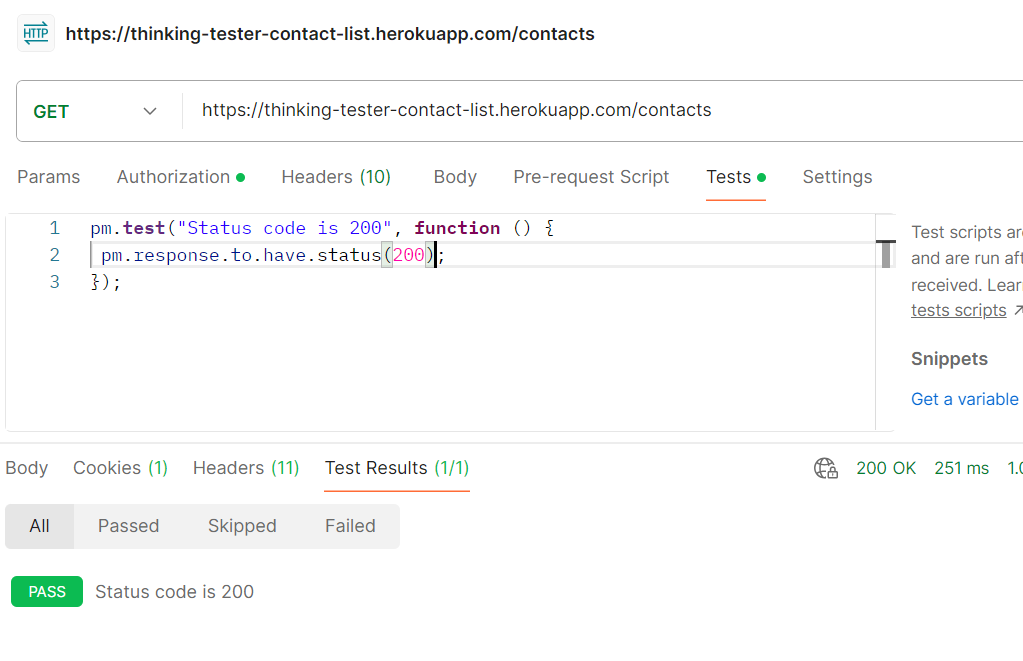
}

]

**Screenshot**



**Test Result**



**Test Case 7:**

**Get Contact**

Request Type: GET

Endpoint: https://thinking-tester-contact-list.herokuapp.com/contacts/689b77e014f67c0015f5caf6

Headers Authorization Bearer {{token}}

Validate for 200 OK

**Postman Chai Assertions**

pm.**test**("Status code is 200", **function** () {

 pm.response.to.have.status(200);

});

**Response**

{

    "\_id": "689b77e014f67c0015f5caf6",

    "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",

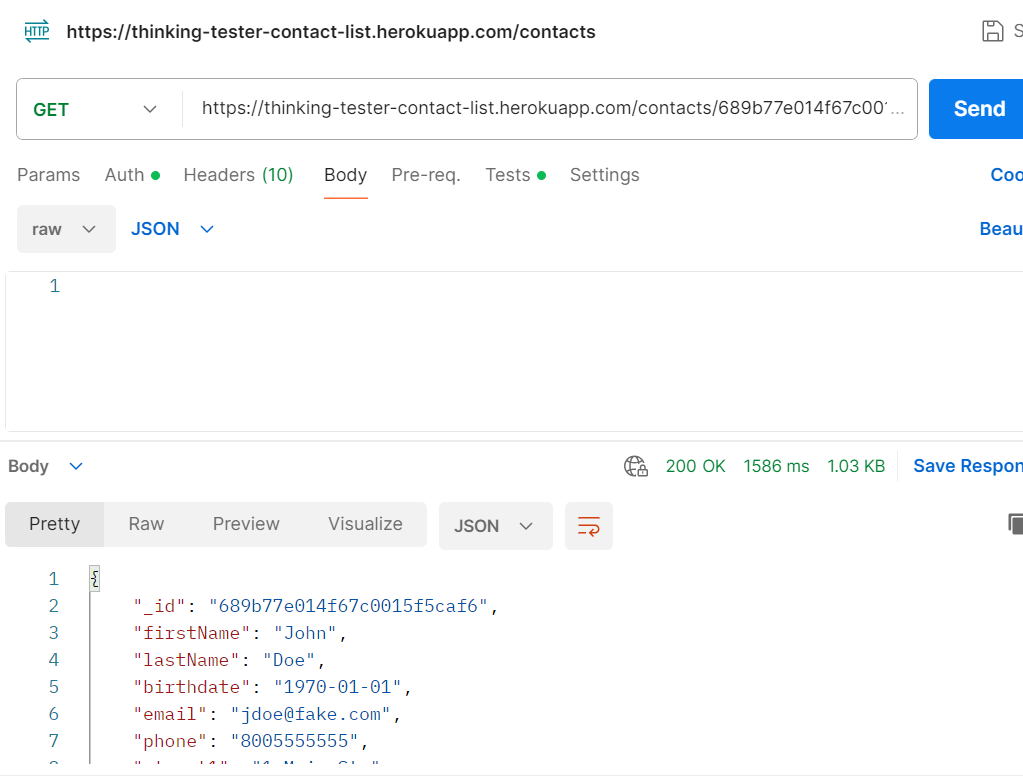
    "country": "USA",

    "owner": "689b7123ca4d840015a9c7b2",

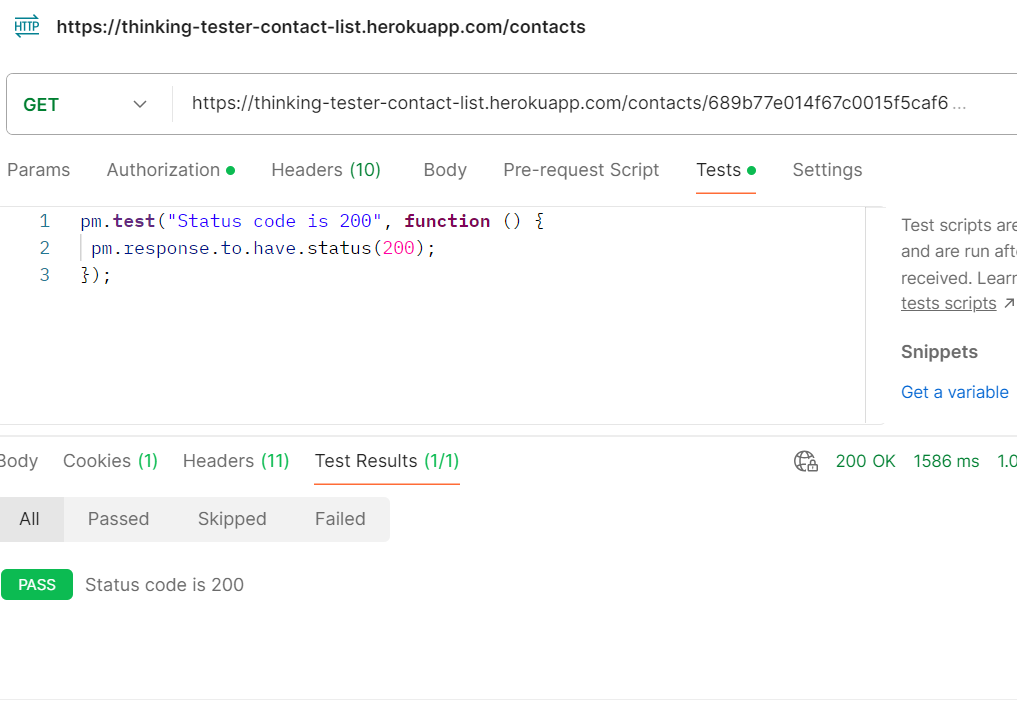
    "\_\_v": 0

}

**SCreenshot**



**Test Result**



**Test Case 8:**

**Update Contact**

Request Type: PUT

End Point: <https://thinking-tester-contact-list.herokuapp.com/contacts/689b77e014f67c0015f5caf6>

Headers Authorization Bearer {{token}}

Request Payload

{

    "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"

}

Validate for Email and 200 OK

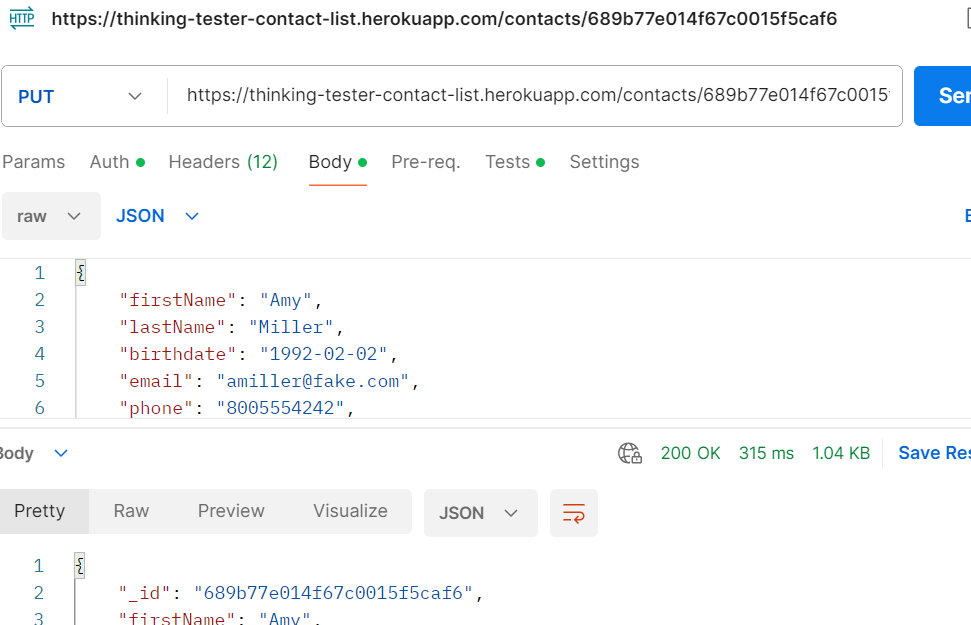
**Postman Chai Assertions**

pm.**test**("Status code is 200", **function** () {

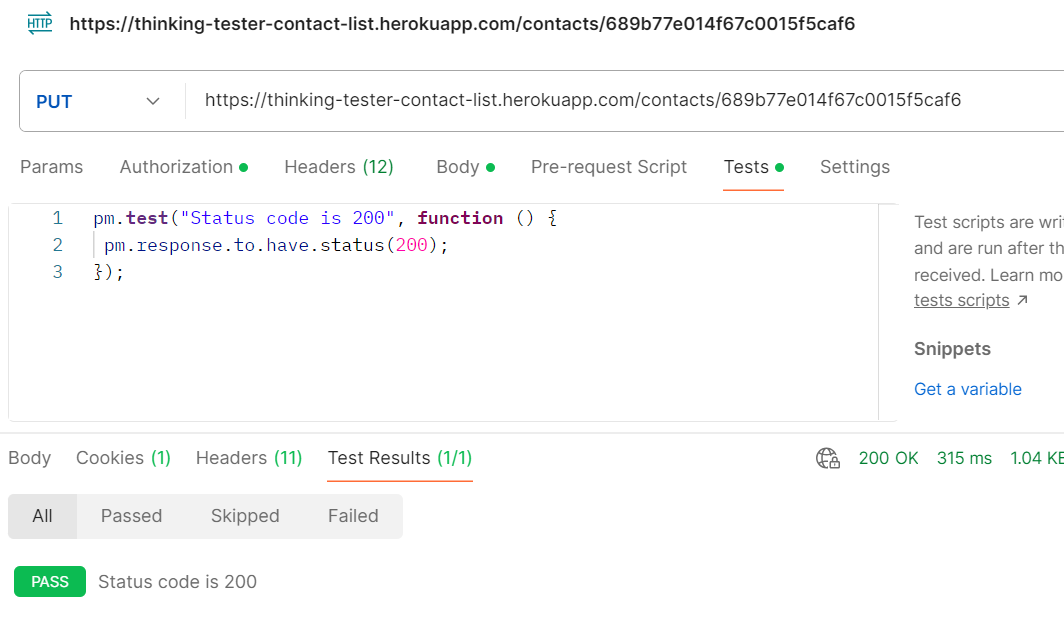
 pm.response.to.have.status(200);

});

**Response Screenshot**



**Test Result**



**Test Case 9:**

Update Contact

Request Type: PATCH

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

Headers Authorization Bearer {{token}}

Request Payload: { "firstName": "Anna" }

Validate for first name and 200 OK

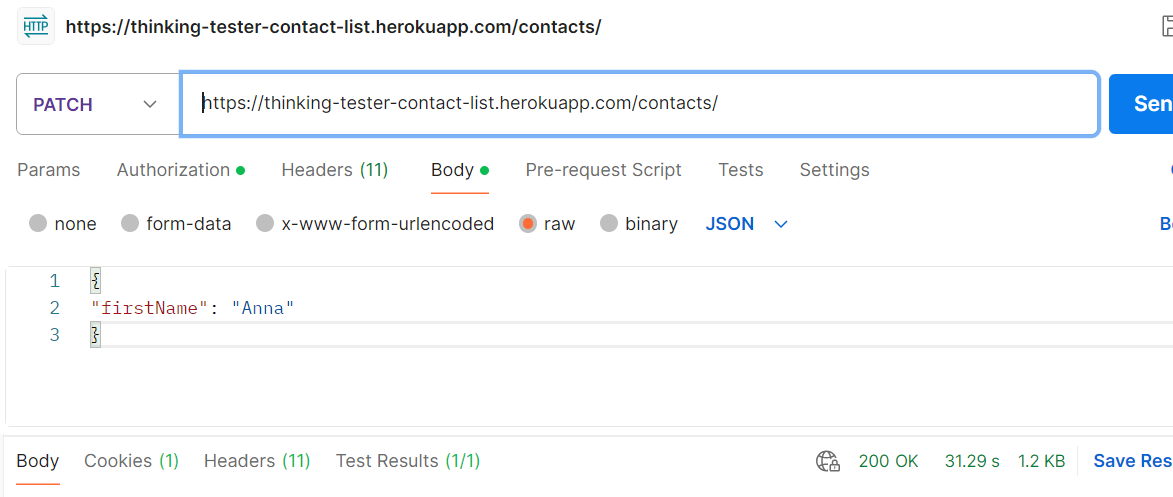
**Postman Chai Assertions**

pm.**test**("Status code is 200", **function** () {

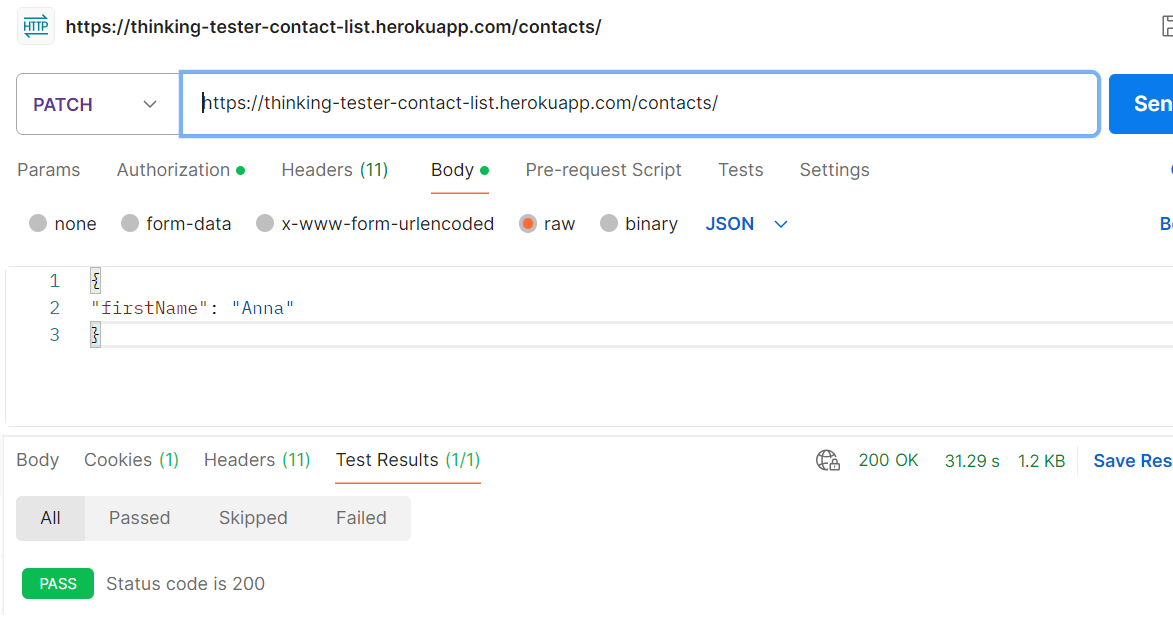
 pm.response.to.have.status(200);

});

**Response screenshot**

****

**Test Screenshot**

****

**Test Case 10:**

**Logout User**

Request Type: POST

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

Headers Authorization Bearer {{token}}

Validate for 200 OK

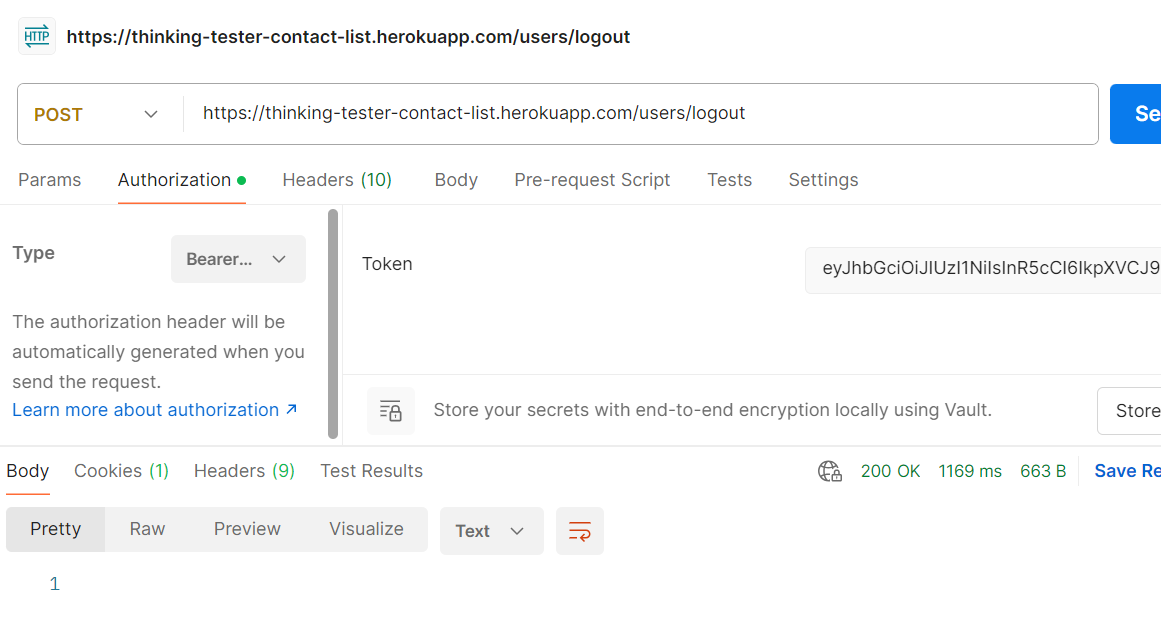
**Postman Chai Assertions**

pm.**test**("Status code is 200", **function** () {

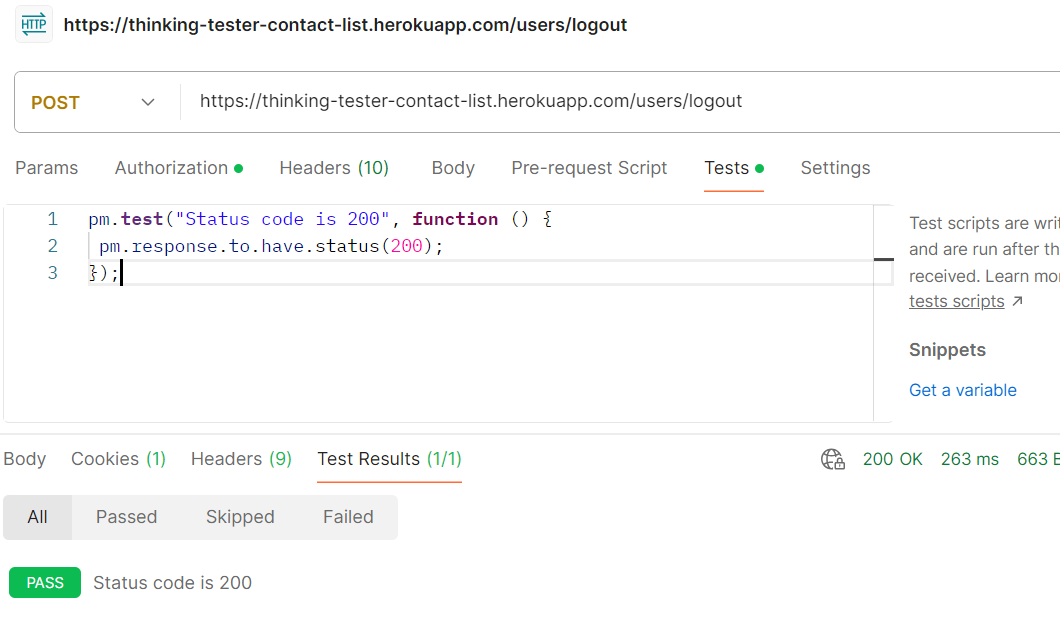
 pm.response.to.have.status(200);

});

**Response screenshot**



**Test Result**



**RestAssured test cases**

Checked into the below github repository(Same as above)

|  |  |
| --- | --- |
| Url | <https://github.com/vijinabalakrishnan/Capstone_Projects/tree/main/API_Testing_Contact_List_Application> |
| Branch | main |
| Access | Public |

**Source code:**

**pom.xml**

<project xmlns="http://maven.apache.org/POM/4.0.0" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xsi:schemaLocation="http://maven.apache.org/POM/4.0.0 https://maven.apache.org/xsd/maven-4.0.0.xsd">

<modelVersion>4.0.0</modelVersion>

<groupId>API\_Testing\_Contact\_List\_Application</groupId>

<artifactId>API\_Testing\_Contact\_List\_Application</artifactId>

<version>0.0.1-SNAPSHOT</version>

<dependencies>

<!-- https://mvnrepository.com/artifact/io.rest-assured/rest-assured -->

<dependency>

<groupId>io.rest-assured</groupId>

<artifactId>rest-assured</artifactId>

<version>5.3.2</version>

</dependency>

</dependencies>

<build>

<sourceDirectory>src</sourceDirectory>

<plugins>

<plugin>

<artifactId>maven-compiler-plugin</artifactId>

<version>3.13.0</version>

<configuration>

<release>13</release>

</configuration>

</plugin>

</plugins>

</build>

</project>

**testng.xml**

<?xml version="1.0" encoding="UTF-8"?>

<!DOCTYPE suite SYSTEM "https://testng.org/testng-1.0.dtd">

<suite name="Suite">

<test thread-count="5" name="Test">

<classes>

<class name="test.java.RestAPITesting"/>

</classes>

</test> <!-- Test -->

</suite> <!-- Suite -->

**/src/test/java/RestAPITesting.java**

package test.java;

import io.restassured.RestAssured;

import io.restassured.http.ContentType;

import io.restassured.response.Response;

import org.testng.Assert;

import org.testng.annotations.BeforeClass;

import org.testng.annotations.Test;

import static io.restassured.RestAssured.*given*;

import static org.hamcrest.Matchers.*equalTo*;

public class RestAPITesting {

private String token;

private String contactId;

@Test

public void testAddNewUser() {

RestAssured.*baseURI* = "https://thinking-tester-contact-list.herokuapp.com";

String requestBody = """

{

"firstName": "Test",

"lastName": "User123",

"email": "test\_email125@fake.com",

"password": "myPassword"

}

""";

Response response = *given*()

.contentType(ContentType.*JSON*)

.body(requestBody)

.when()

.post("/users")

.then()

.statusCode(201)

.statusLine(*equalTo*("HTTP/1.1 201 Created"))

.extract().response();

String token = response.jsonPath().getString("token");

token.codePoints();

}

@BeforeClass

public void setupAndLogin() {

RestAssured.*baseURI* = "https://thinking-tester-contact-list.herokuapp.com";

// Login to get token (assumes user already exists)

String loginBody = """

{

"email": "test\_email125@fake.com",

"password": "myPassword"

}

""";

Response loginResponse = *given*()

.contentType(ContentType.*JSON*)

.body(loginBody)

.when()

.post("/users/login")

.then()

.statusCode(200)

.extract().response();

token = loginResponse.jsonPath().getString("token");

}

@Test(priority = 1)

public void testGetUserProfile() {

*given*()

.header("Authorization", "Bearer " + token)

.when()

.get("/users/me")

.then()

.statusCode(200)

.statusLine(*equalTo*("HTTP/1.1 200 OK"));

}

@Test(priority = 2)

public void testUpdateUser() {

String updateBody = """

{

"firstName": "Updated",

"lastName": "Username",

"email": "test\_email125@fake.com",

"password": "myPassword"

}

""";

*given*()

.header("Authorization", "Bearer " + token)

.contentType(ContentType.*JSON*)

.body(updateBody)

.when()

.patch("/users/me")

.then()

.statusCode(200)

.statusLine(*equalTo*("HTTP/1.1 200 OK"));

}

@Test(priority = 3)

public void testAddContact() {

String contactBody = """

{

"firstName": "John",

"lastName": "Doe",

"birthdate": "1970-01-01",

"email": "test\_email125@fake.com",

"phone": "8005555555",

"street1": "1 Main St.",

"street2": "Apartment A",

"city": "Anytown",

"stateProvince": "KS",

"postalCode": "12345",

"country": "USA"

}

""";

*given*()

.header("Authorization", "Bearer " + token)

.contentType(ContentType.*JSON*)

.body(contactBody)

.when()

.post("/contacts")

.then()

.statusCode(201)

.statusLine(*equalTo*("HTTP/1.1 201 Created"));

}

@Test(priority = 4)

public void testGetContactList() {

Response searchResponse = *given*()

.header("Authorization", "Bearer " + token)

.contentType(ContentType.*JSON*)

.when()

.get("/contacts")

.then()

.statusCode(200)

.statusLine(*equalTo*("HTTP/1.1 200 OK"))

.extract().response();

contactId = searchResponse.jsonPath().getString("[0].\_id");//store the search result

}

@Test(priority = 5)

public void testGetContactById() {

*given*()

.header("Authorization", "Bearer " + token)

.contentType(ContentType.*JSON*)

.when()

.get("/contacts/" + contactId)

.then()

.statusCode(200)

.statusLine(*equalTo*("HTTP/1.1 200 OK"));

}

@Test(priority = 6)

public void testUpdateContact() {

System.*out*.println("First Contact ID: " + contactId);

String updateBody = """

{

"firstName": "Amy",

"lastName": "Miller",

"birthdate": "1992-02-02",

"email": "test\_email125@fake.com",

"phone": "8005554242",

"street1": "13 School St.",

"street2": "Apt. 5",

"city": "Washington",

"stateProvince": "QC",

"postalCode": "A1A1A1",

"country": "Canada"

}

""";

*given*()

.header("Authorization", "Bearer " + token)

.contentType(ContentType.*JSON*)

.body(updateBody)

.when()

.put("/contacts/" + contactId)

.then()

.statusCode(200)

.body("email", *equalTo*("test\_email125@fake.com"))

.statusLine(*equalTo*("HTTP/1.1 200 OK"));

}

@Test(priority = 7)

public void testPatchUpdateContact() {

String patchBody = """

{

"firstName": "Anna"

}

""";

*given*()

.header("Authorization", "Bearer " + token)

.contentType(ContentType.*JSON*)

.body(patchBody)

.when()

.patch("/contacts/" + contactId)

.then()

.statusCode(200)

.body("firstName", *equalTo*("Anna"))

.statusLine(*equalTo*("HTTP/1.1 200 OK"));

}

@Test(priority = 8)

public void testLogoutUser() {

*given*()

.header("Authorization", "Bearer " + token)

.contentType(ContentType.*JSON*)

.when()

.post("/users/logout")

.then()

.statusCode(200)

.statusLine(*equalTo*("HTTP/1.1 200 OK"));

}

}