Testing Document

Group 2

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Frontend:

Our testing process for the frontend of the website consisted of exploratory testing. Focusing on things like responsiveness, proper rendering, and cross-platform compatibility among other things. Our validation for the exploratory testing consisted of observing the web pages and comparing them with our expected views.

Backend:

We tested the backend using Postman to ensure each API endpoint behaved as expected under various conditions. We first sent GET, POST and PUT requests to endpoints like /get-recommendations and /current-user, verifying the responses, status codes, and headers. We utilized the google chrome console to check for all actions and connections between the frontend and the backend. This consisted of validating the proper API calls, and correct connectivity among other things.

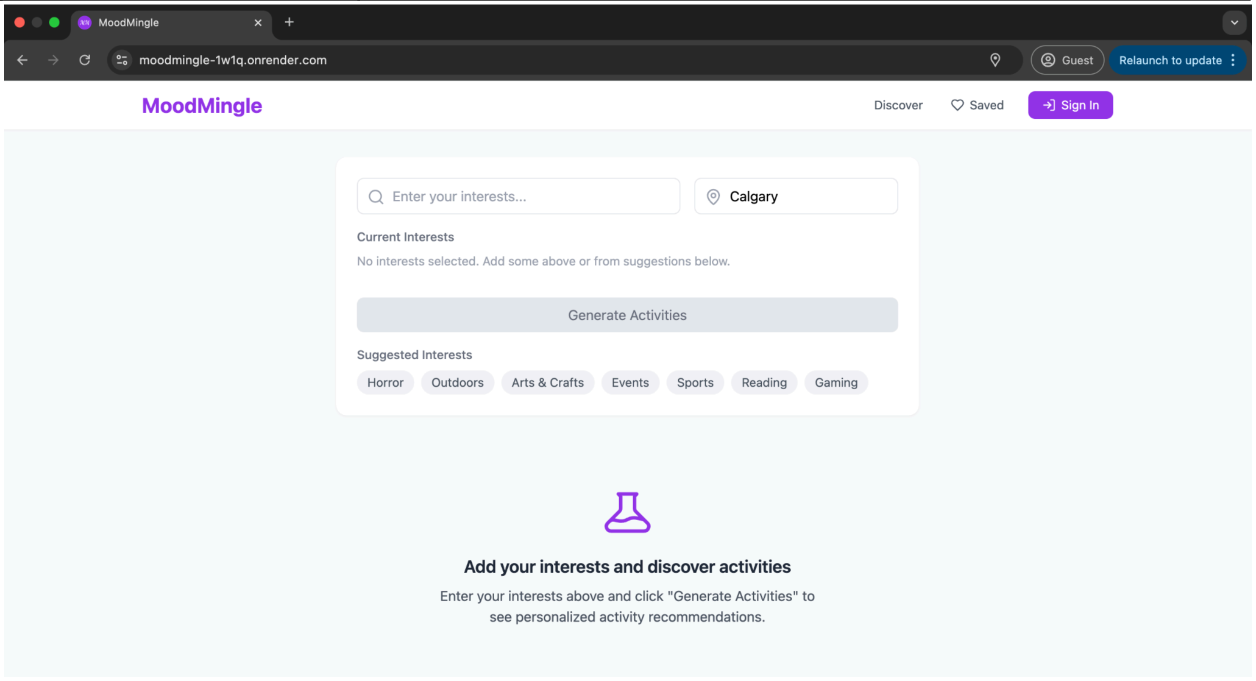
In testing the LLM, we added multiple debugging statements throughout the code to ensure that we were receiving expected output in all points of the code. We followed a similar method for the Weather and Location services where we would cross-validate the outputs with our real-world location.

FRONT PAGE LOADS CORRECTLY

Name	
Charter	<explore frontpage> <with the console and front end interface> <see if front page is loaded on startup>
System Setup	● Windows/Mac, Flask, Google Chrome
Test Start Time	03/19/25, 3:08 pm
Areas Tested	Ensure base link leads to the home page
How I Tested	Using the webpage UI to observe expected page
Defects	N/A
Test Stop Time	03/19/25 3:09 pm
Other Non-Charter Testing	Adding interests and having them displayed

Validation Plan

Expected vs. Actual Behavior	Home page loads | Home page loaded

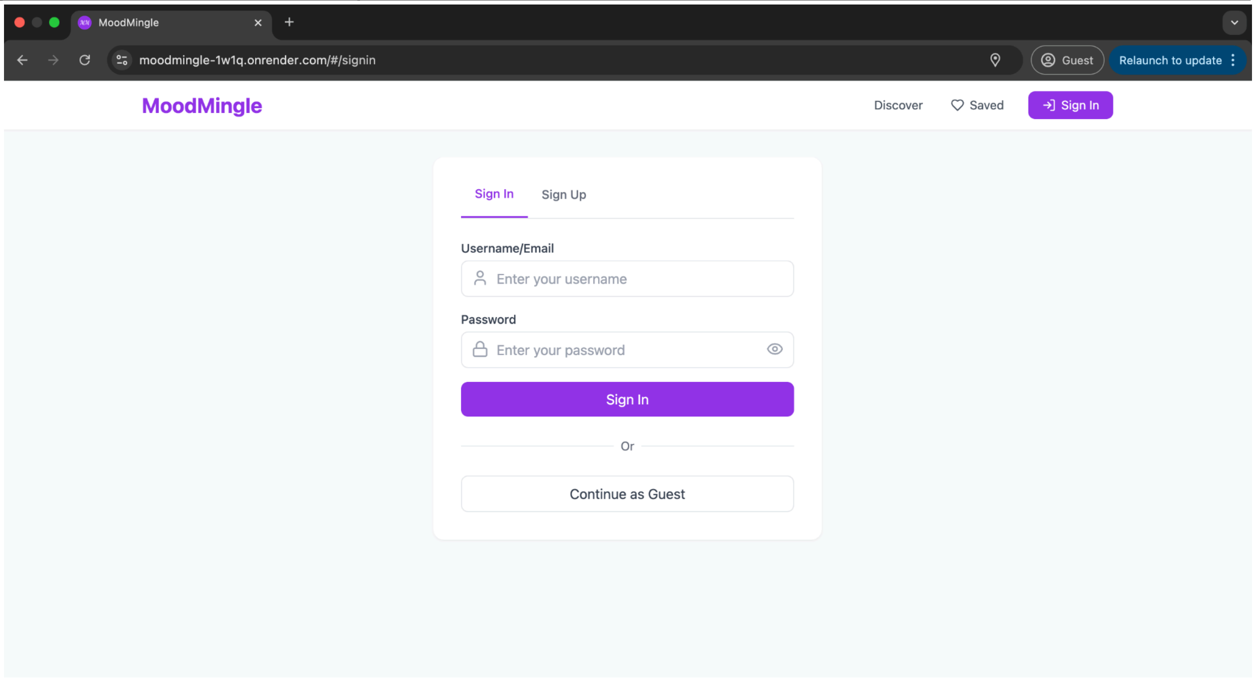

MoodMingle
moodmingle-1w1q.onrender.com
Guest
Relaunch to update
MoodMingle
Discover
Saved
Sign In
Enter your interests...
Calgary
Current Interests
No interests selected. Add some above or from suggestions below.
Generate Activities
Suggested Interests
Horror
Outdoors
Arts & Crafts
Events
Sports
Reading
Gaming
Add your interests and discover activities
Enter your interests above and click "Generate Activities" to see personalized activity recommendations.

CORRECTLY LOADS SIGN IN/UP AND ALLOWS FOR REGISTRATION OR LOGGING IN

Name	
Charter	<explore sign in page> <with the console and front end interface> <see if front page is loaded on startup>
System Setup	● Windows/Mac, Flask, Google Chrome
Test Start Time	03/19/25, 3:10 pm
Areas Tested	Ensure sign up page and sign in page properly route user. Ensure seamless transition between choices
How I Tested	Using the webpage UI to switch to and between pages
Defects	N/A
Test Stop Time	03/19/25 3:11 pm
Other Non-Charter Testing	Test "Continue as Guest" returns to the discover page

Validation Plan

Expected vs. Actual Behavior	Sign up/in page loads, no errors on the console | Sign up/in page loaded with no errors or warnings.

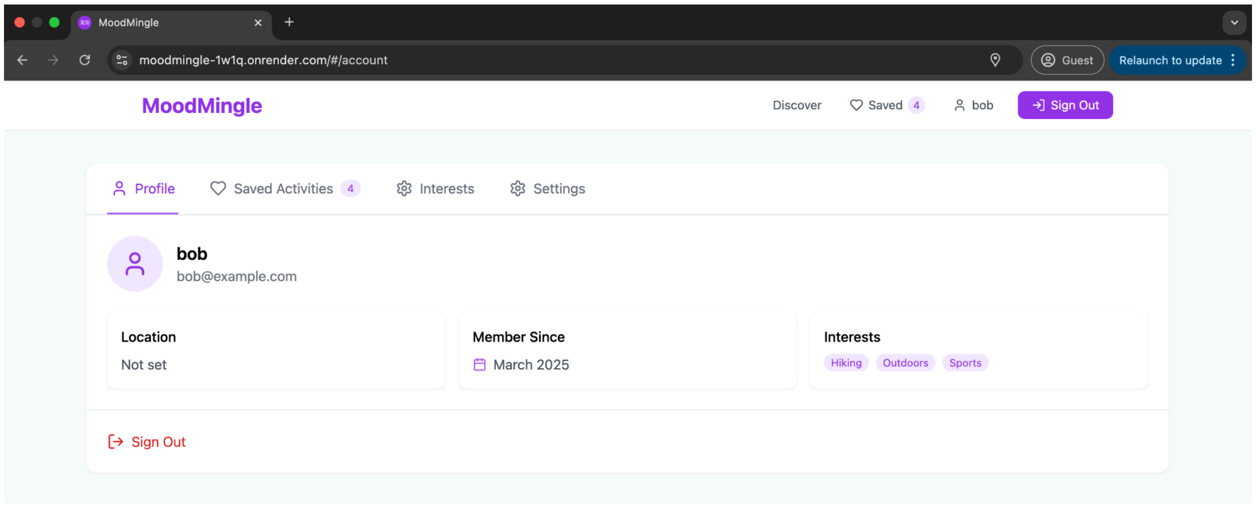


CORRECTLY DISPLAYS INFORMATION ON USER PROFILE

Name	
Charter	<explore User Information page> <with the database and front end interface> <see if all saved data is found and correct information is displayed>
System Setup	● Windows/Mac, Flask, Google Chrome
Test Start Time	03/19/25, 3:13 pm
Areas Tested	Ensure information displayed is accurate. Check that all data from the database is correctly obtained and displayed. Switch between the different tabs on this page and test different functionalities (Removing saved activities, removing interests, sign out)
How I Tested	Using the webpage UI to switch to and between tabs
Defects	N/A
Test Stop Time	03/19/25 3:15 pm
Other Non-Charter Testing	

Validation Plan

Expected vs. Actual Behavior	Clean transitions between pages, responsive updates | timely transitions, and accurate displays



bob
bob@example.com

Location
Not set

Member Since
March 2025

Interests
Hiking Outdoors Sports

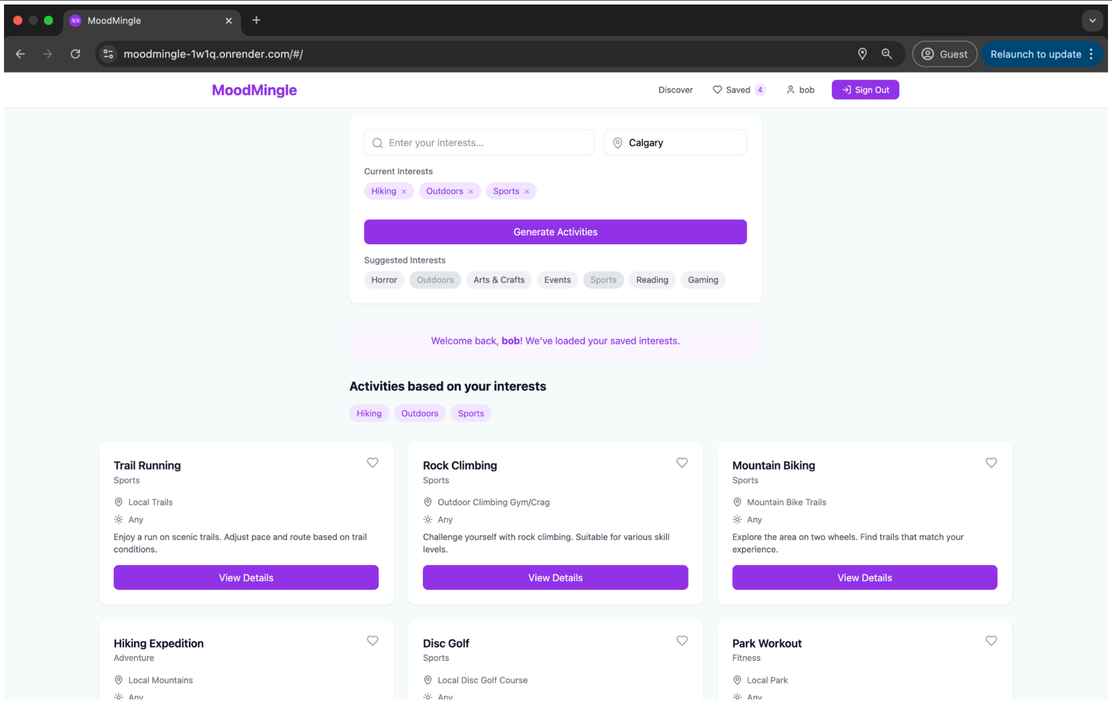
Sign Out

CAN GENERATE RELEVANT SUGGESTIONS

Name	
Charter	<explore activity recommendations> <using the frontend interface> <to check that generated suggestions are relevant to the guest users interests>
System Setup	● Windows/Mac, Flask, Google Chrome
Test Start Time	03/19/25, 3:16 pm
Areas Tested	Entered various interests and preferences on a guest users account and checked that the generated activities are relevant to said interests
How I Tested	Enter various interests to see if recommendations are relevant
Defects	N/A
Test Stop Time	03/19/25 3:20 pm
Other Non-Charter Testing	Making sure activities can correctly be saved

Validation Plan

Expected vs. Actual Behavior	Multiple Reasonable and Relevant activities | many activities that are related to the users interests.	This shows us that our webpage correctly generates suggestions



Current Interests

Hiking × Outdoors × Sports ×

Suggested Interests

Horror Outdoors Arts & Crafts Events Sports Reading Gaming

Welcome back, **bob**! We've loaded your saved interests.

Activities based on your interests

Hiking Outdoors Sports

Trail Running
Sports
Local Trails
Any
Enjoy a run on scenic trails. Adjust pace and route based on trail conditions.

Rock Climbing
Sports
Outdoor Climbing Gym/Crag
Any
Challenge yourself with rock climbing. Suitable for various skill levels.

Mountain Biking
Sports
Mountain Bike Trails
Any
Explore the area on two wheels. Find trails that match your experience.

Hiking Expedition
Adventure
Local Mountains
Any

Disc Golf
Sports
Local Disc Golf Course
Any

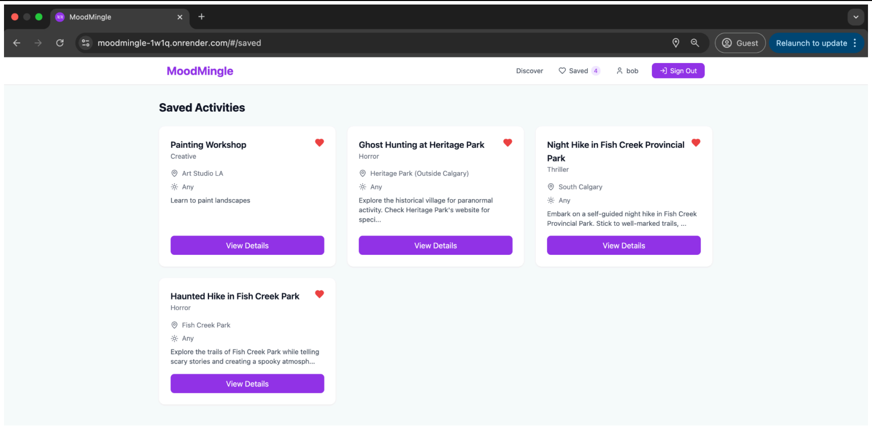
Park Workout
Fitness
Local Park
Any

CAN DELETE SAVED ACTIVITIES

Name	
Charter	<explore deleting saved activities> <with the console and front end interface> <see if an activity deletion is saved for future logins>
System Setup	• Windows/Mac, Flask, Google Chrome
Test Start Time	03/19/25, 3:21 pm
Areas Tested	Ensure that an activity deleted from saved page is confirmed in database
How I Tested	Navigate to saved page and remove activity, log out and then return to validate that activity is correctly deleted
Defects	N/A
Test Stop Time	03/19/25 3:22 pm
Other Non-Charter Testing	

Validation Plan

Expected vs. Actual Behavior	Activity is removed from webpage and database | activity is gone	Users can properly store favorited activities



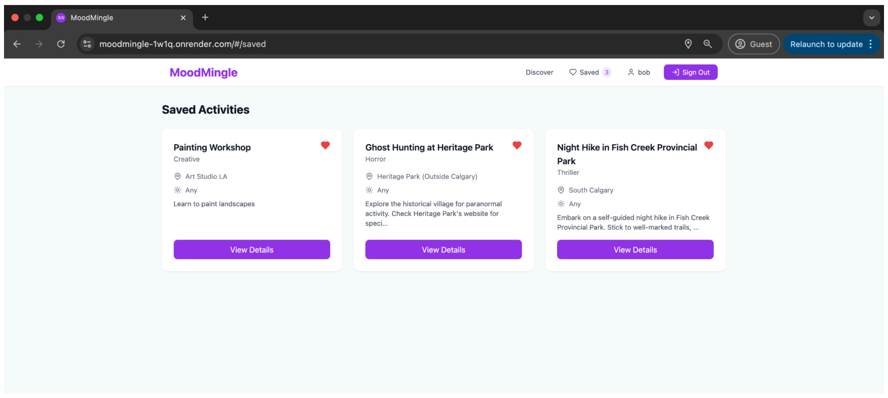
Saved Activities

Painting Workshop
Creative
Art Studio LA
Any
Learn to paint landscapes
View Details

Ghost Hunting at Heritage Park
Horror
Heritage Park (Outside Calgary)
Any
Explore the historical village for paranormal activity. Check Heritage Park's website for speci...
View Details

Night Hike in Fish Creek Provincial Park
Thriller
South Calgary
Any
Embark on a self-guided night hike in Fish Creek Provincial Park. Stick to well-marked trails, ...
View Details

Haunted Hike in Fish Creek Park
Horror
Fish Creek Park
Any
Explore the trails of Fish Creek Park while telling scary stories and creating a spooky atmosph...
View Details



Saved Activities

Painting Workshop
Creative
Art Studio LA
Any
Learn to paint landscapes
View Details

Ghost Hunting at Heritage Park
Horror
Heritage Park (Outside Calgary)
Any
Explore the historical village for paranormal activity. Check Heritage Park's website for speci...
View Details

Night Hike in Fish Creek Provincial Park
Thriller
South Calgary
Any
Embark on a self-guided night hike in Fish Creek Provincial Park. Stick to well-marked trails, ...
View Details

SAVED ACTIVITIES PERSIST THROUGH BROWSER SESSIONS

Name	
Charter	<explore data persistence in saved activities> <with the console and front end interface> <see if an activity is saved in future logins>
System Setup	● Windows/Mac, Flask, Google Chrome
Test Start Time	03/19/25, 3:31 pm
Areas Tested	Ensure that an activity is saved from a previous login
How I Tested	Generate an activity, save it, log out, log back in and check whether activity is still saved
Defects	N/A
Test Stop Time	03/19/25 3:33 pm
Other Non-Charter Testing	

Validation Plan

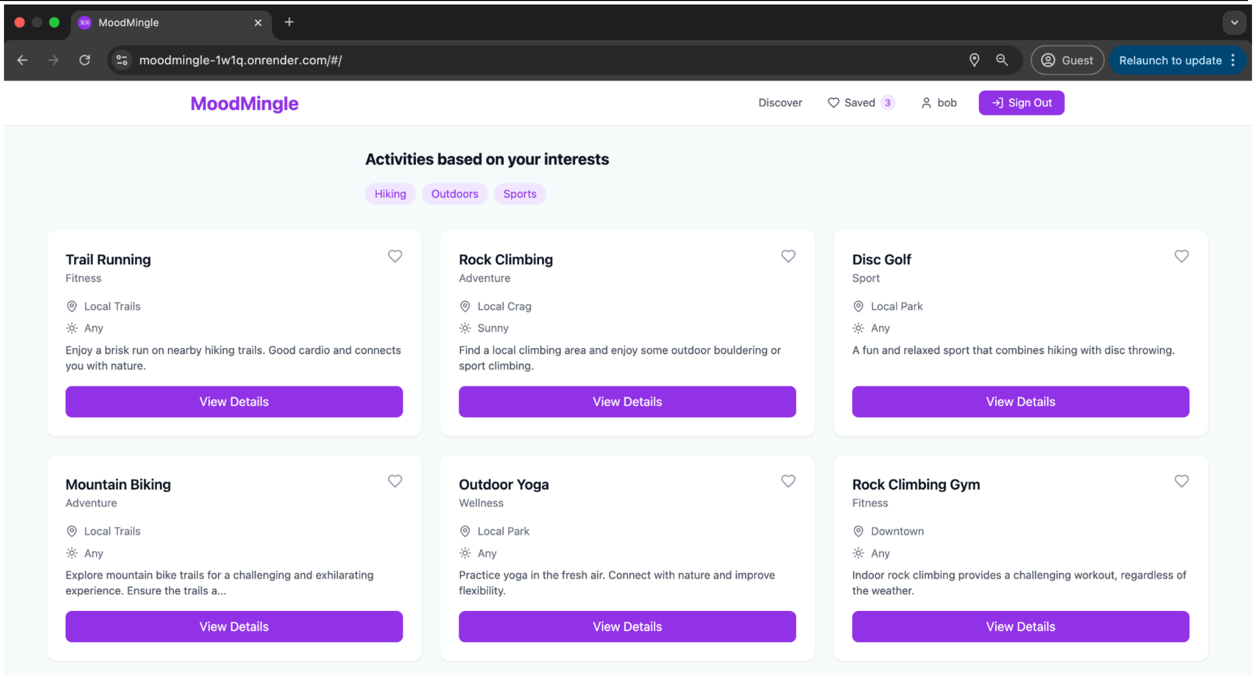
Expected vs. Actual Behavior	Activity shows up in the saved information | activity was there	Users can save data for future use

GENERATE RECOMMENDATION BASED ON LOCATION AND WEATHER

Name	
Charter	<explore recommendation generation based on location and weather> <with the database, front end interface and weather+LLM API> <see if recommendations are pertinent to weather and location>
System Setup	● Windows/Mac, Flask, Google Chrome
Test Start Time	03/19/25, 4:30 pm
Areas Tested	- Generate Activites, check if activities generated are close to location and if the weather conditions are taken into account
How I Tested	- Added in interests catered towards outdoors and checked results
Defects	N/A
Test Stop Time	03/19/25, 4:31 pm
Other Non-Charter Testing	

Validation Plan

Expected vs. Actual Behavior	Expected: Recommendations based on current weather and activities based in calgary	Activities are based on current weather conditions so the activities are relevant to the situations.



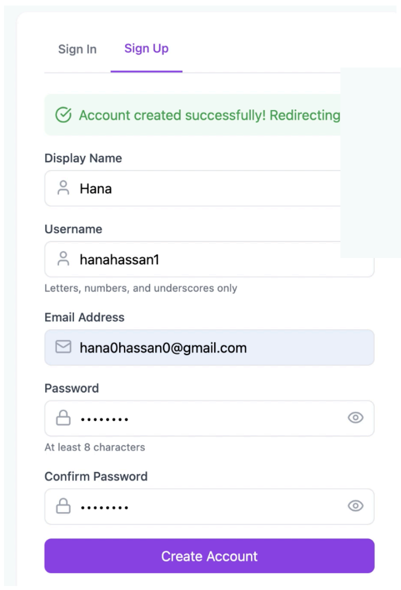
Activities based on your interests

Hiking Outdoors Sports

Trail Running Fitness Local Trails Any Enjoy a brisk run on nearby hiking trails. Good cardio and connects you with nature. View Details	**Rock Climbing** Adventure Local Crag Sunny Find a local climbing area and enjoy some outdoor bouldering or sport climbing. View Details	**Disc Golf** Sport Local Park Any A fun and relaxed sport that combines hiking with disc throwing. View Details
Mountain Biking Adventure Local Trails Any Explore mountain bike trails for a challenging and exhilarating experience. Ensure the trails a... View Details	**Outdoor Yoga** Wellness Local Park Any Practice yoga in the fresh air. Connect with nature and improve flexibility. View Details	**Rock Climbing Gym** Fitness Downtown Any Indoor rock climbing provides a challenging workout, regardless of the weather. View Details

CREATING AN ACCOUNT

Name	
Charter	<explore sign up page> <with the database and front end interface> <see if account is created and added to database >
System Setup	● Windows/Mac, Flask, Google Chrome
Test Start Time	03/19/25, 4:22 pm
Areas Tested	- Entered user details (name, username, email, & password) and submitted the account creation form. - Checked if the account was successfully created. - Verified if the user could log in after account creation.
How I Tested	- Input valid user credentials and attempt to create an account. - Attempted to create an account with missing or invalid details to check validation. - Logged in with the newly created account to confirm successful creation.
Defects	N/A
Test Stop Time	03/19/25, 4:30 pm
Other Non-Charter Testing	- Check for correct and incorrect email format - Verified if error messages appeared for missing or invalid fields. - Ensured password security requirements were enforced. - Ensures password matching
Expected vs. Actual Behavior	Expected: Account should be created successfully when valid details are entered, and the user should be able to log in. Actual: Account was created without issues, and login worked as expected.



Account created successfully! Redirecting

Display Name: Hana

Username: hanahassan1

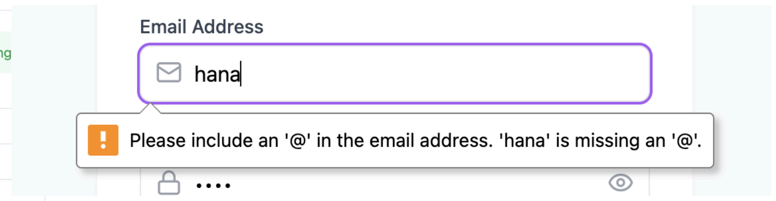
Letters, numbers, and underscores only

Email Address: hana0hassan0@gmail.com

Password: ••••••••

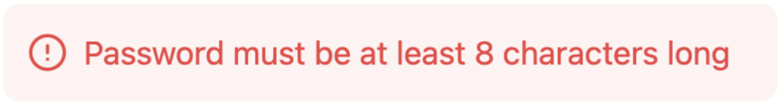
At least 8 characters

Confirm Password: ••••••••

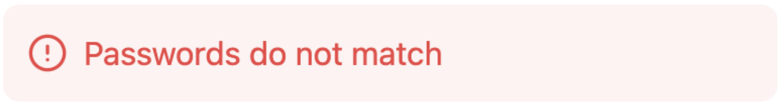


Email Address: hana

Please include an '@' in the email address. 'hana' is missing an '@'.



Password must be at least 8 characters long



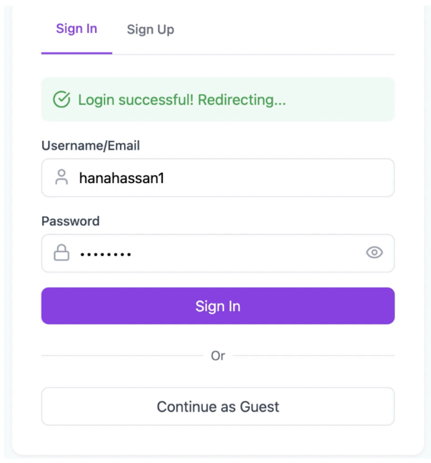
Passwords do not match

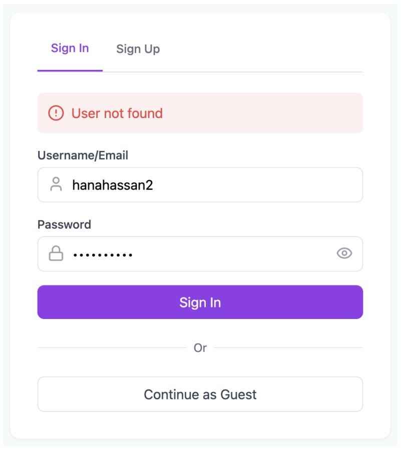
LOG IN TO AN ACCOUNT

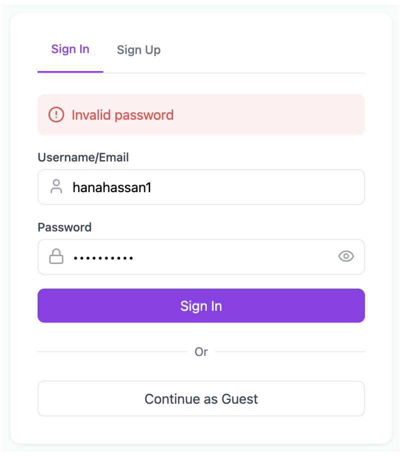
Name	
Charter	<explore login page> <with the database and front end interface> <see if can log into created account>
System Setup	● Windows/Mac, Flask, Google Chrome
Test Start Time	03/19/25, 4:30 pm
Areas Tested	- Entered valid credentials and successfully logged into an existing account. - Tested login with incorrect credentials to verify error handling. - Checked if the system handled session management properly.
How I Tested	- Attempted to log in with the correct email and password. - Entered incorrect passwords to check error messages. - Tried logging in with an unregistered email.
Defects	N/A
Test Stop Time	03/19/25, 4:33 pm
Other Non-Charter Testing	- Checked if login errors provided appropriate feedback without exposing sensitive details. - Ensured the user could log out and that sessions ended correctly.

Validation Plan

Expected vs. Actual Behavior	Expected: The user should be able to log in with valid credentials, receive error messages for incorrect login attempts, and be redirected to the appropriate page upon successful login. Actual: Login functioned as expected, error messages displayed correctly, and session persisted properly.


Login successful! Redirecting...
Username/Email: hanahassan1
Password: ••••••••


User not found
Username/Email: hanahassan2
Password: ••••••••••

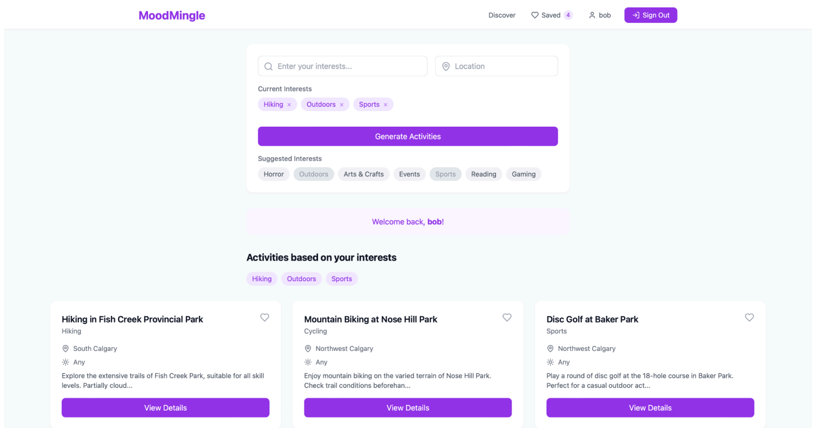

Invalid password
Username/Email: hanahassan1
Password: ••••••••••

GENERATE ACTIVITY RELATED TO INTEREST

Name	
Charter	<explore generating activities with interests on discover page> <with the front end interface> <see if the generated suggestions are relevant to the user's selected interests.>
System Setup	● Windows/Mac, Flask, Google Chrome
Test Start Time	03/19/25, 5:30 pm
Areas Tested	- Entered various interests and preferences in a user's account. - Checked that the system-generated activities matched the selected interests. - Verified if changes in interests affected recommendations.
How I Tested	- Selected different interests to observe if recommended activities aligned with them. - Tested broad vs. niche interests to assess system adaptability. - Entered conflicting or unrelated interests to see how the algorithm handled them. - Checked if deleting the recommendations provided new, relevant suggestions.
Defects	N/A
Test Stop Time	03/19/25, 5:46 pm
Other Non-Charter Testing	- Tested if recommendations changed dynamically with different user inputs.

Validation Plan

Expected vs. Actual Behavior	Expected: The system should generate activities that match or closely align with the user's selected interests. Actual: The system successfully suggested relevant activities based on the entered interests.



Activities based on your interests

Hiking Outdoors Sports

Hiking in Fish Creek Provincial Park
Hiking
South Calgary
Any
Explore the extensive trails of Fish Creek Park, suitable for all skill levels. Partially cloud...
View Details

Mountain Biking at Nose Hill Park
Cycling
Northwest Calgary
Any
Enjoy mountain biking on the varied terrain of Nose Hill Park. Check trail conditions beforehan...
View Details

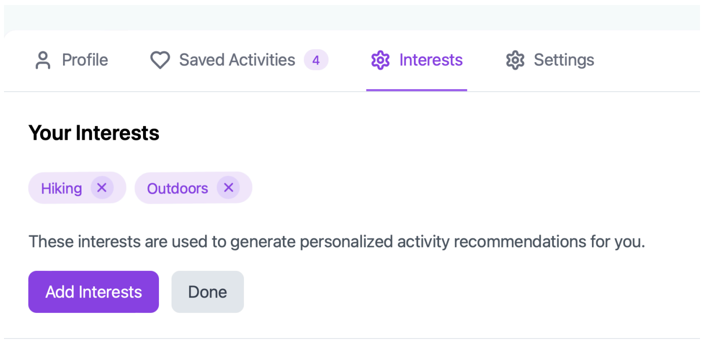
Disc Golf at Baker Park
Sports
Northwest Calgary
Any
Play a round of disc golf at the 18-hole course in Baker Park. Perfect for a casual outdoor act...
View Details

REMOVE INTEREST FROM SAVED INTERESTS ON USER PAGE

Name	
Charter	<explore the functionality of removing interests from a user's saved interests> <with the front end interface> <see if removed interests no longer affect activity recommendations & no longer appears in frontend or database>
System Setup	● Windows/Mac, Flask, Google Chrome
Test Start Time	03/19/25, 5:50 pm
Areas Tested	- Removed one or multiple interests from the saved list. - Verified that removed interests no longer influenced activity recommendations. - Checked if the removed interests reappeared after a page refresh or logout/login.
How I Tested	- Selected interests and saved them. - Removed an interest and checked if it was removed from the list. - Refreshed the page and logged out/logged back in to ensure persistence. - Observed if activity recommendations changed after removing an interest.
Defects	N/A
Test Stop Time	03/19/25, 5:54 pm
Other Non-Charter Testing	- Verified if removing all interests reset the recommendation system.

Validation Plan

Expected vs. Actual Behavior	Expected: The removed interest should no longer appear in the saved list and should not influence activity recommendations. Actual: The system successfully removed interests, and recommendations adjusted accordingly.



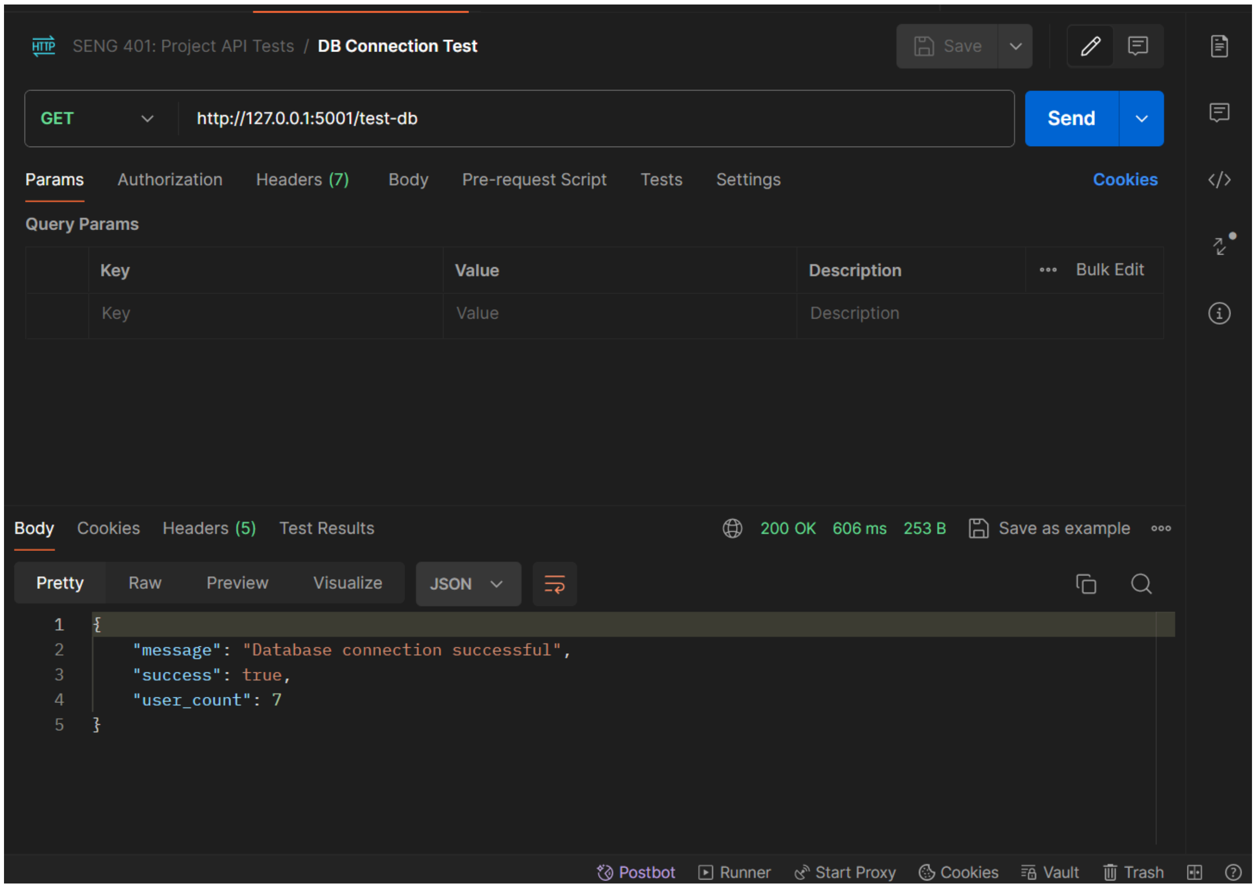
Your Interests

Hiking ✕ Outdoors ✕

These interests are used to generate personalized activity recommendations for you.

API Test (via Postman):

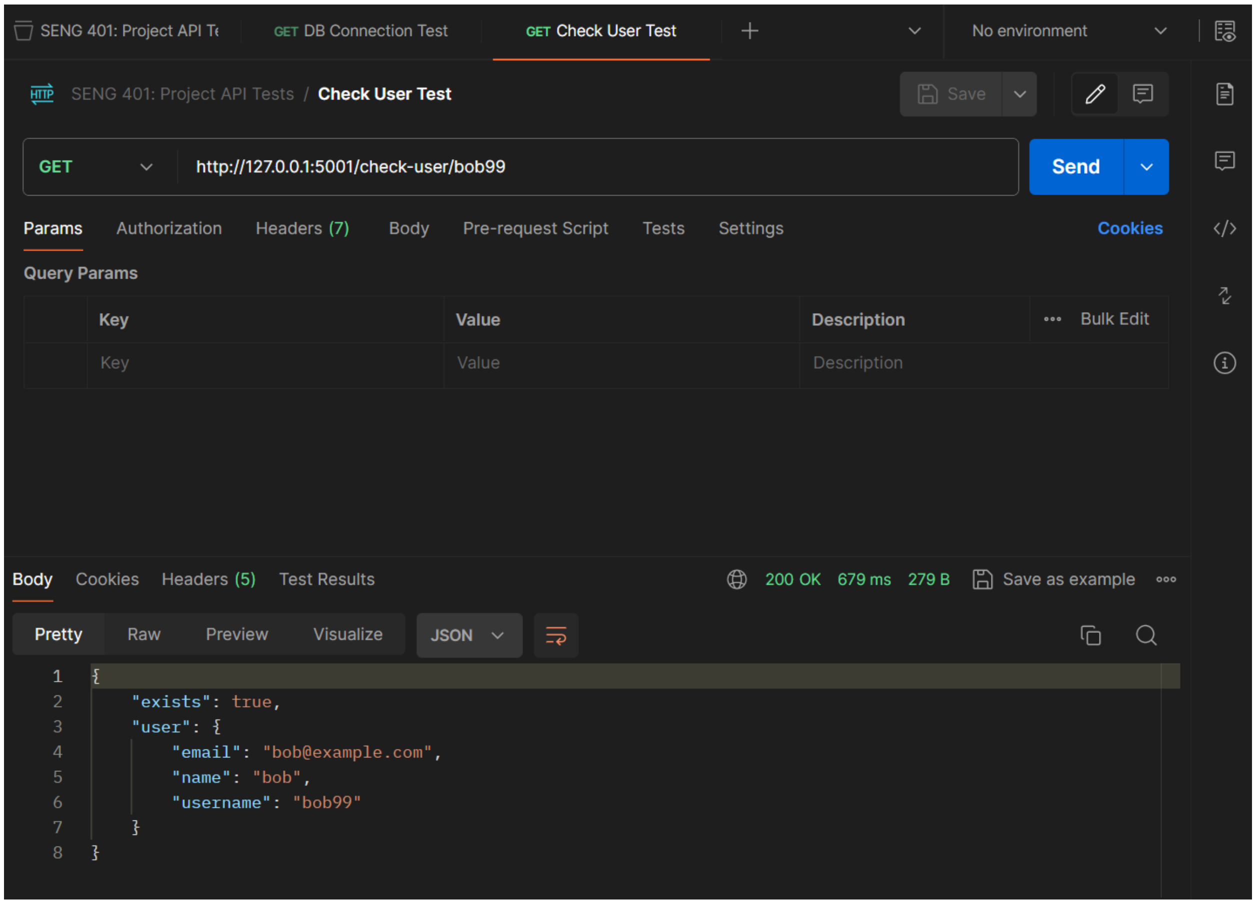
Testing the DB Connection:



```
GET http://127.0.0.1:5001/test-db
```

```
{
    "message": "Database connection successful",
    "success": true,
    "user_count": 7
}
```

Testing the checking for User:



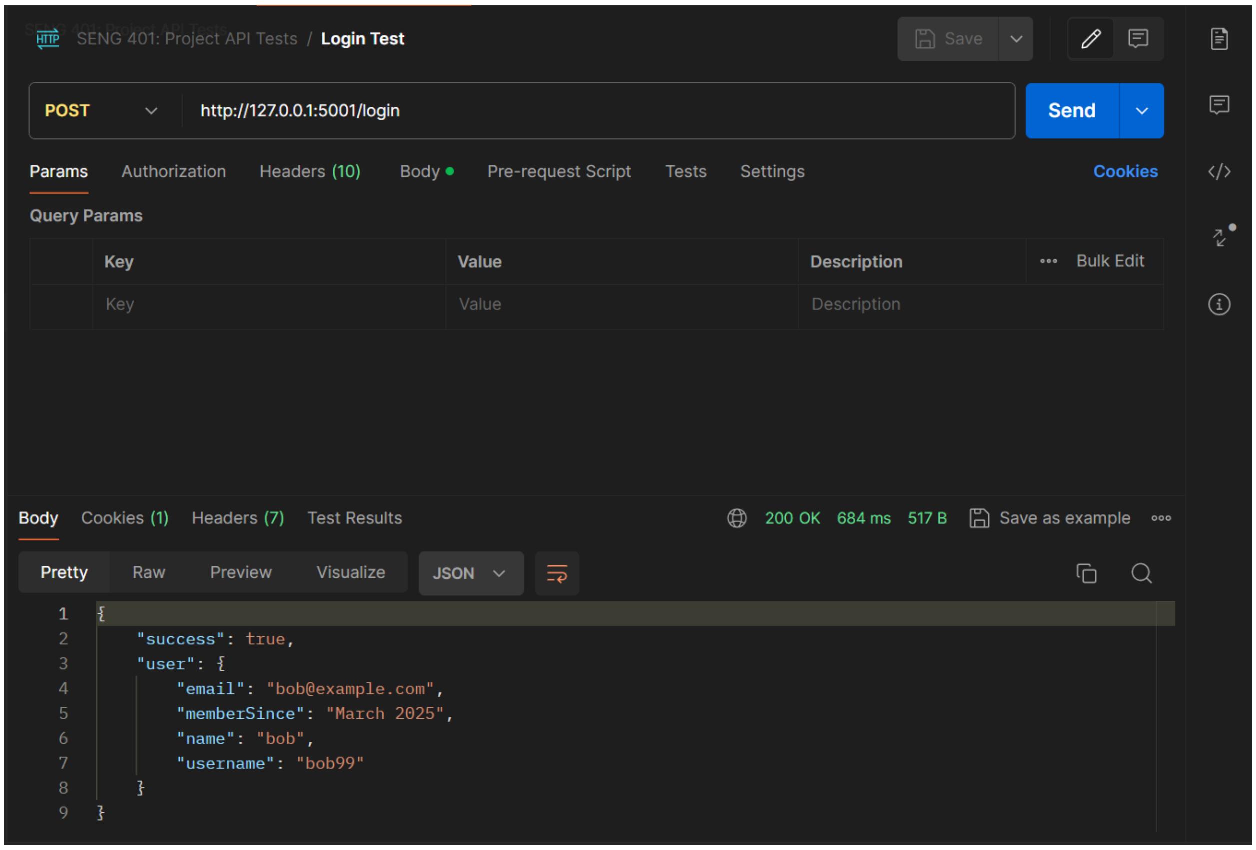
http://127.0.0.1:5001/check-user/bob99

Key	Value	Description
Key	Value	Description

200 OK 679 ms 279 B

```
{
    "exists": true,
    "user": {
        "email": "bob@example.com",
        "name": "bob",
        "username": "bob99"
    }
}
```

Testing the Login Test:

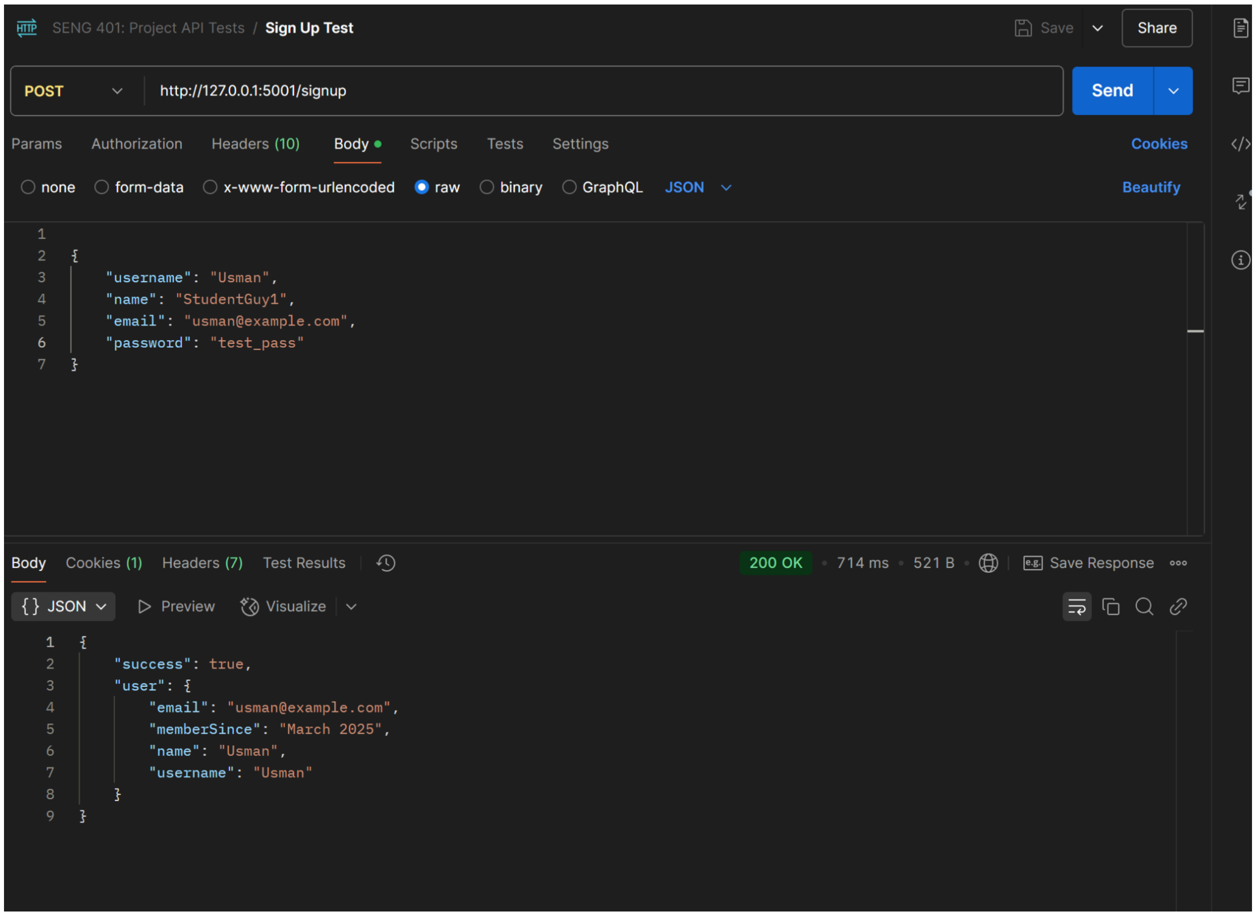


POST http://127.0.0.1:5001/login

200 OK 684 ms 517 B

```
{
    "success": true,
    "user": {
        "email": "bob@example.com",
        "memberSince": "March 2025",
        "name": "bob",
        "username": "bob99"
    }
}
```

Testing the Sign-Up feature:



POST http://127.0.0.1:5001/signup

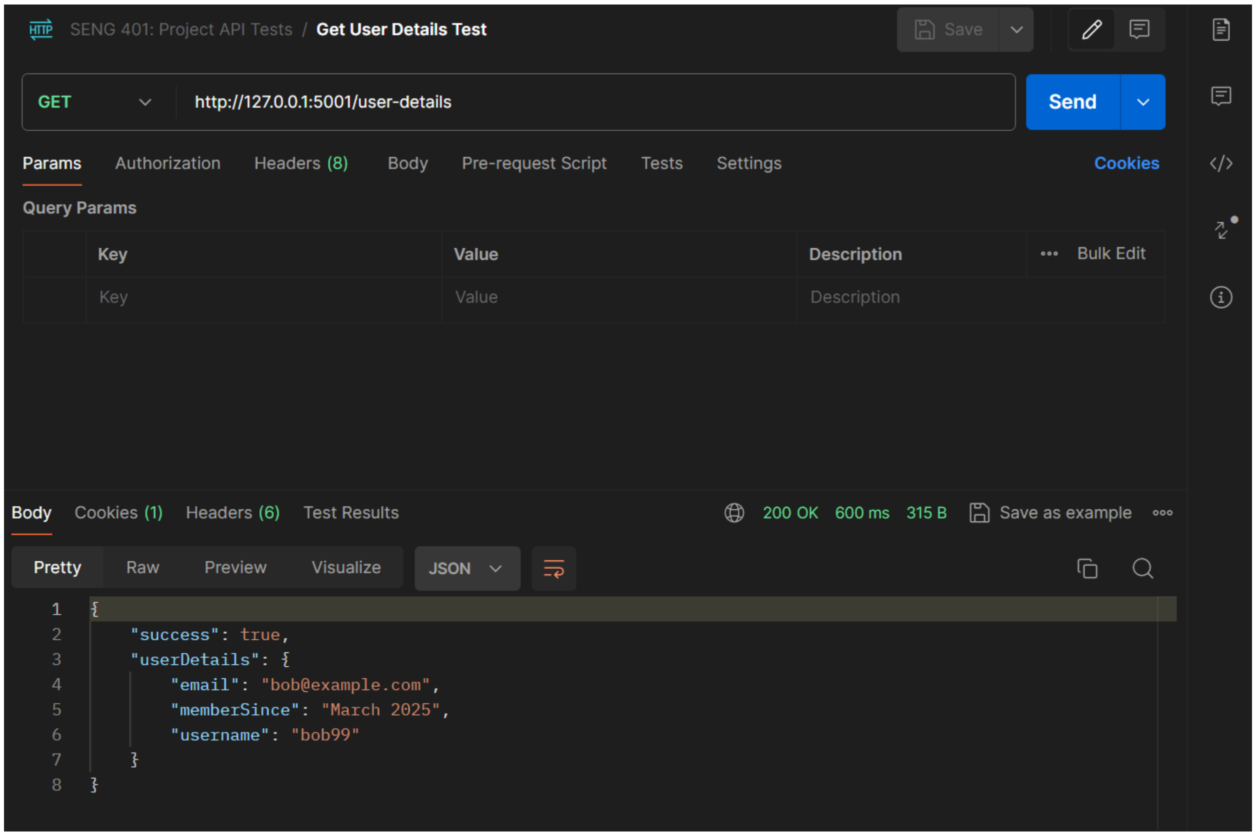
```

{
    "username": "Usman",
    "name": "StudentGuy1",
    "email": "usman@example.com",
    "password": "test_pass"
}
```

Body 200 OK • 714 ms • 521 B

```
{
    "success": true,
    "user": {
        "email": "usman@example.com",
        "memberSince": "March 2025",
        "name": "Usman",
        "username": "Usman"
    }
}
```

Testing to get user details:



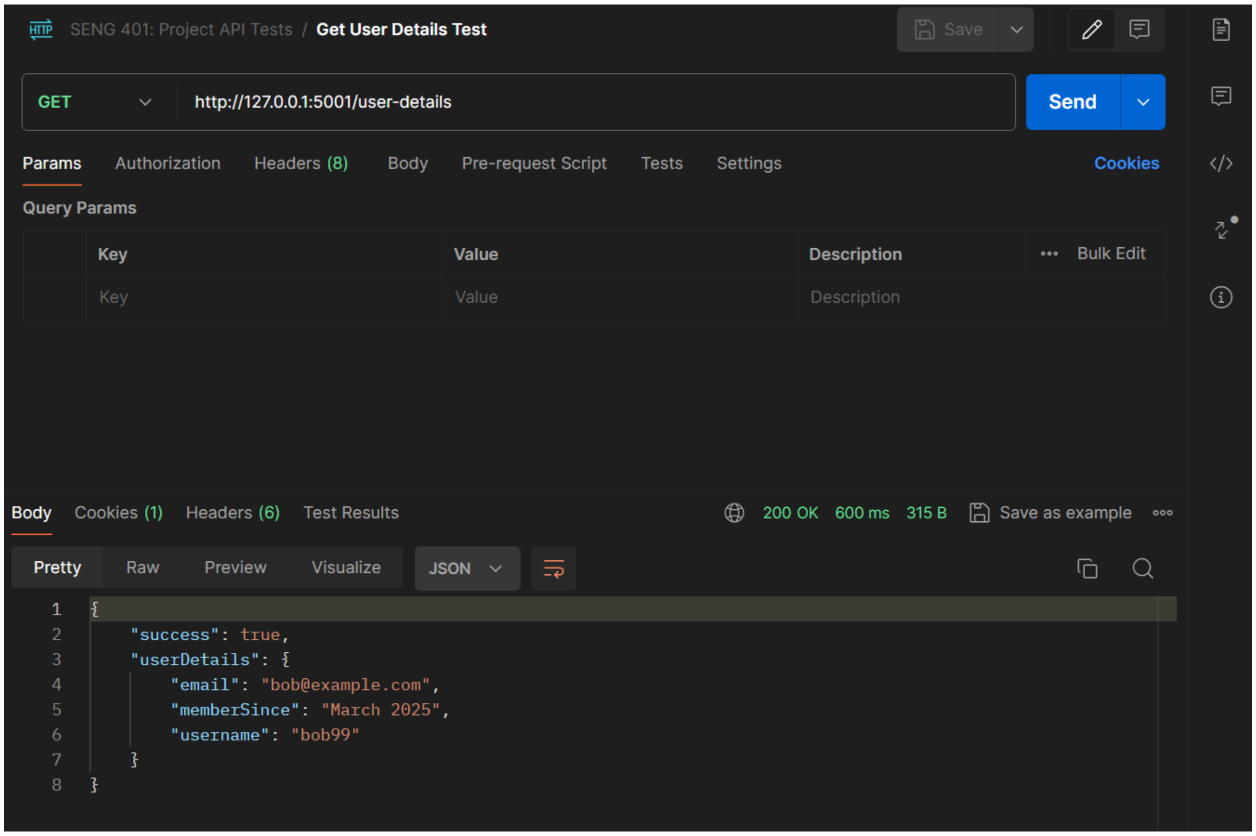
GET http://127.0.0.1:5001/user-details

Key	Value	Description
Key	Value	Description

200 OK 600 ms 315 B

```
{
    "success": true,
    "userDetails": {
        "email": "bob@example.com",
        "memberSince": "March 2025",
        "username": "bob99"
    }
}
```

Getting the current user test:

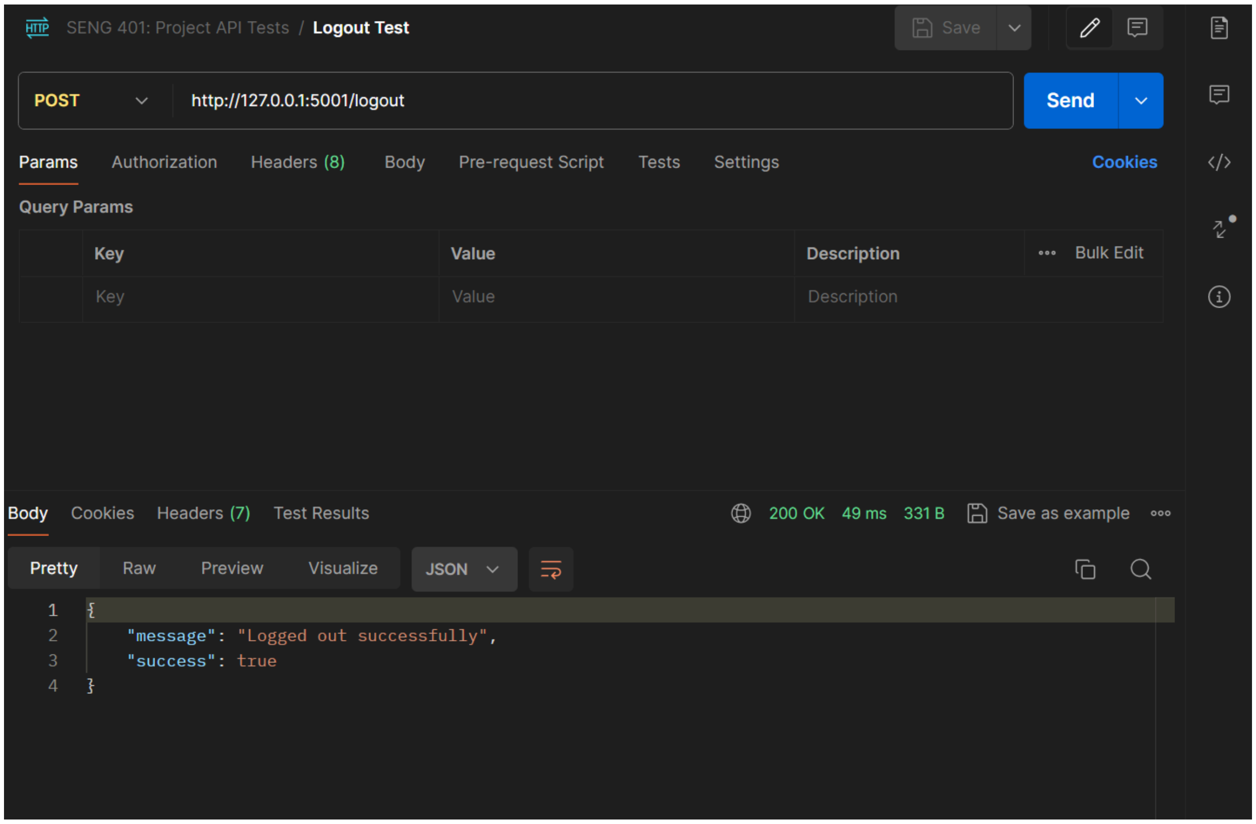


http://127.0.0.1:5001/user-details

Key	Value	Description
Key	Value	Description

```
{
    "success": true,
    "userDetails": {
        "email": "bob@example.com",
        "memberSince": "March 2025",
        "username": "bob99"
    }
}
```

Testing the Logout User:

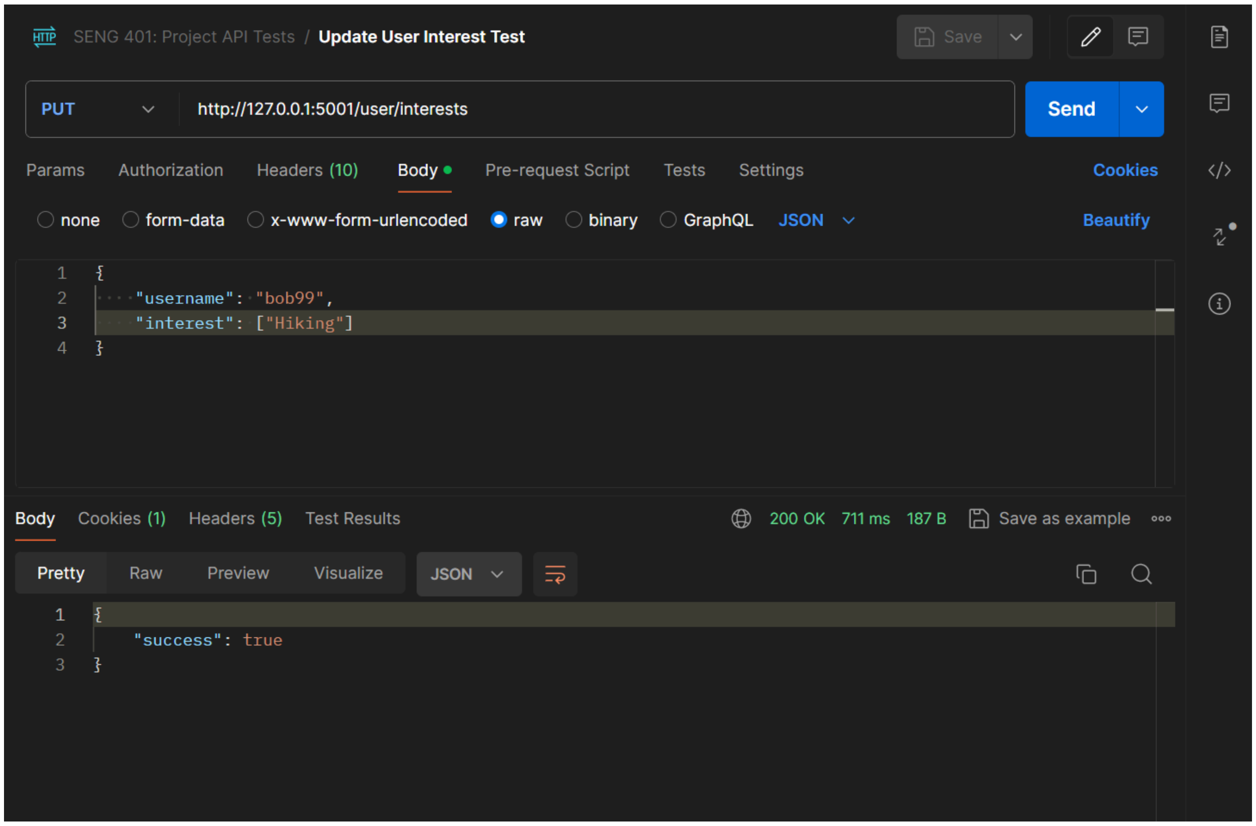


http://127.0.0.1:5001/logout

Key	Value	Description
Key	Value	Description

```
{
    "message": "Logged out successfully",
    "success": true
}
```

Testing to update the users interest:



PUT http://127.0.0.1:5001/user/interests

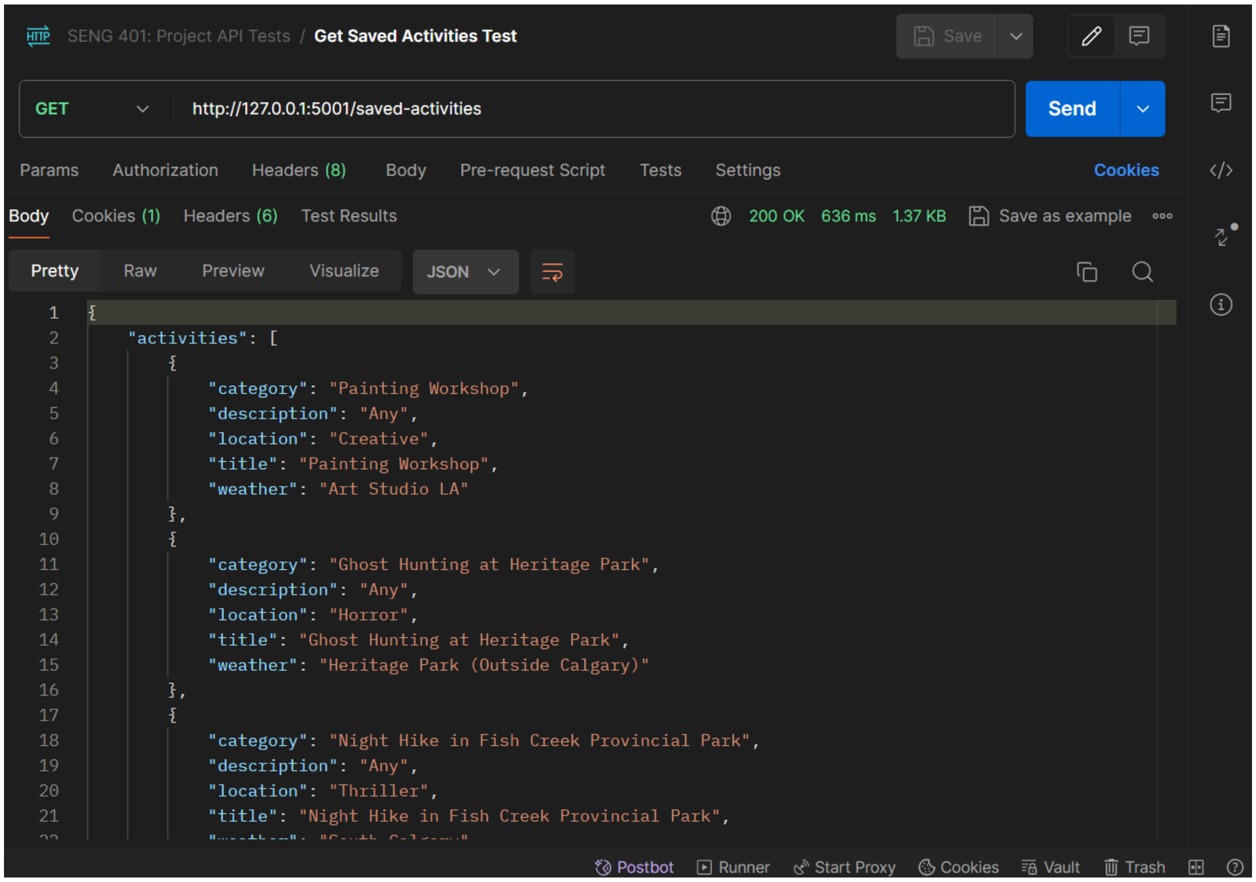
Body: none form-data x-www-form-urlencoded [✓ raw] binary GraphQL JSON

```
{
    "username": "bob99",
    "interest": ["Hiking"]
}
```

200 OK 711 ms 187 B

```
{
    "success": true
}
```

Testing to get the saved interests:

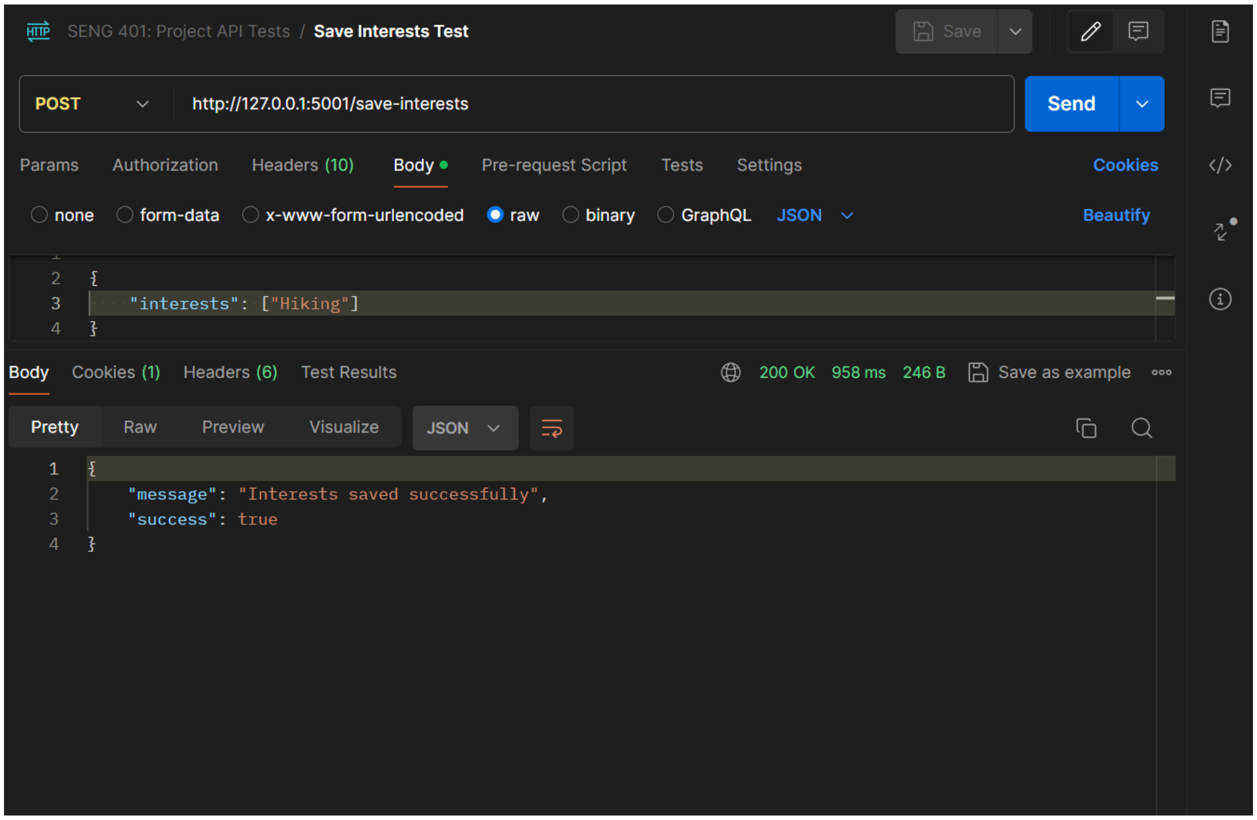


```
GET http://127.0.0.1:5001/saved-activities
```

```
200 OK   636 ms   1.37 KB
```

```
{
    "activities": [
        {
            "category": "Painting Workshop",
            "description": "Any",
            "location": "Creative",
            "title": "Painting Workshop",
            "weather": "Art Studio LA"
        },
        {
            "category": "Ghost Hunting at Heritage Park",
            "description": "Any",
            "location": "Horror",
            "title": "Ghost Hunting at Heritage Park",
            "weather": "Heritage Park (Outside Calgary)"
        },
        {
            "category": "Night Hike in Fish Creek Provincial Park",
            "description": "Any",
            "location": "Thriller",
            "title": "Night Hike in Fish Creek Provincial Park",
```

Testing to save the user's interests:



SENG 401: Project API Tests / Save Interests Test

POST http://127.0.0.1:5001/save-interests

```
{
    "interests": ["Hiking"]
}
```

200 OK 958 ms 246 B

```
{
    "message": "Interests saved successfully",
    "success": true
}
```