EXP NO: 1	AZURE DEVOPS ENVIRONMENT SETUP

Aim:

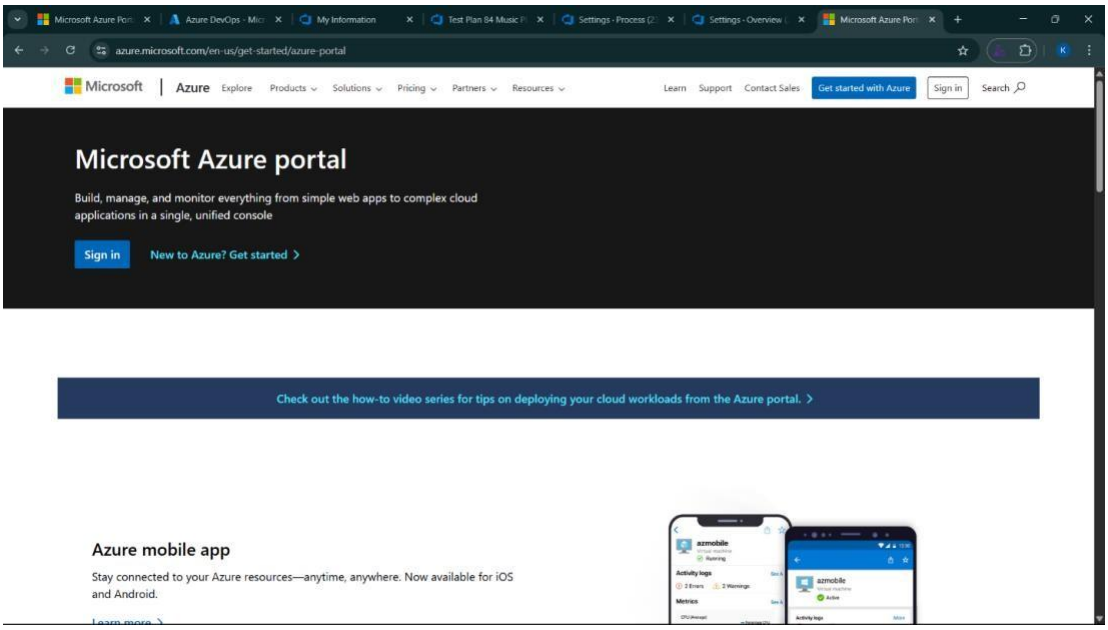
To set up and access the Azure DevOps environment by creating an organization through the Azure portal.

INSTALLATION

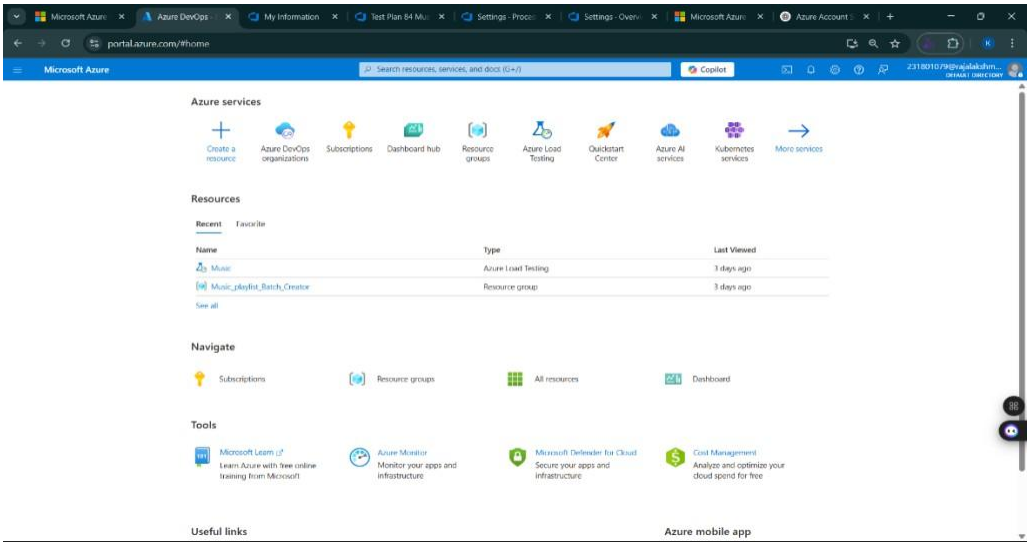
1. Open your web browser and go to the Azure website: https://azure.microsoft.com/en-us/get-started/azure-portal.

Sign in using your Microsoft account credentials.

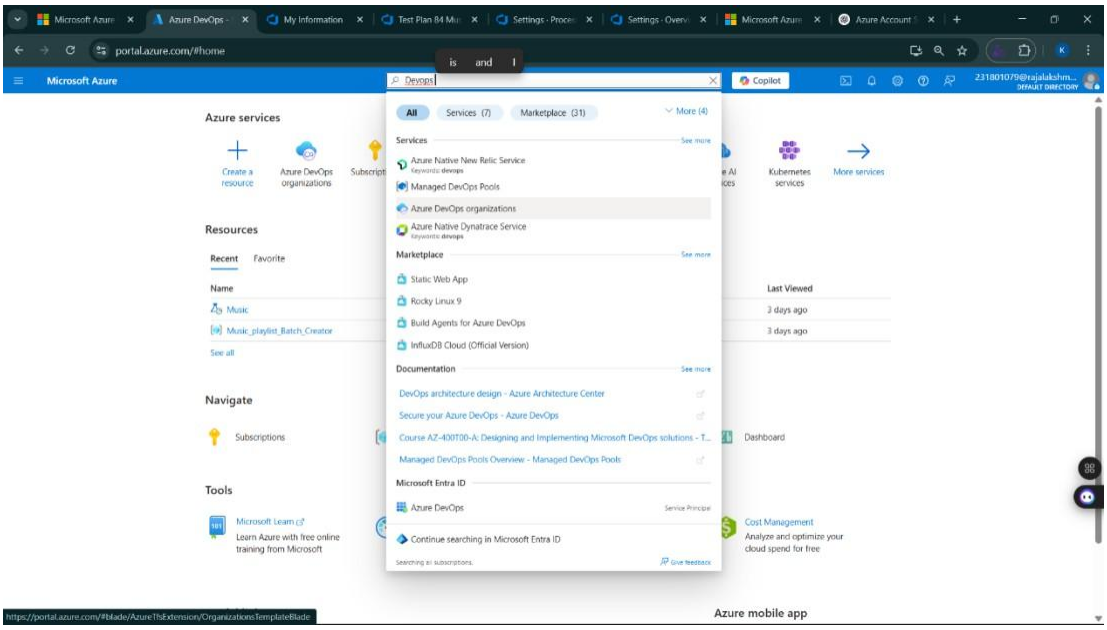
If you don't have a Microsoft account, you can create one here: https://signup.live.com/?lic=1



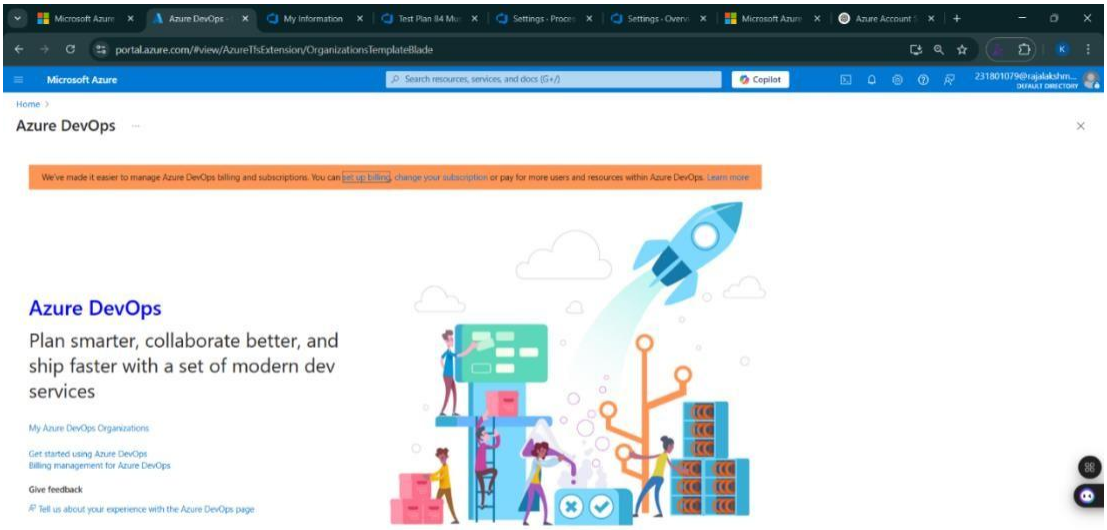
2. Azure home page



3. Open DevOps environment in the Azure platform by typing ***Azure DevOps Organizations*** in the search bar.



4. Click on the ***My Azure DevOps Organization*** link and create an organization and you should be taken to the Azure DevOps Organization Home page.



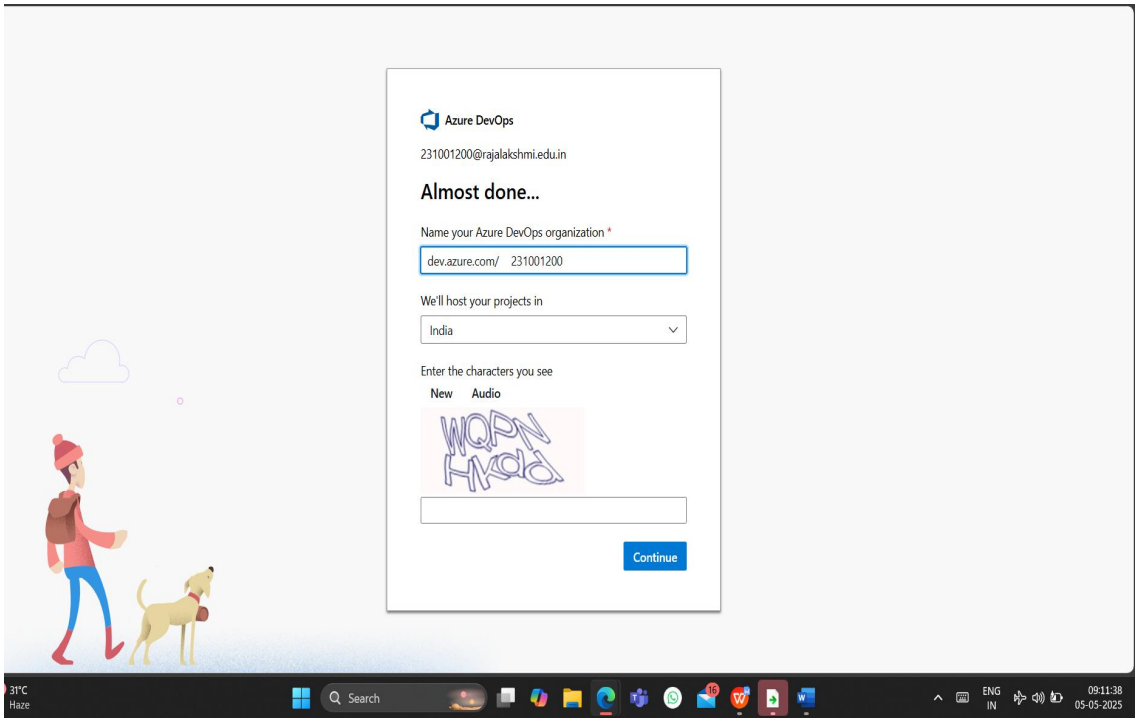
Result:

Successfully accessed the Azure DevOps environment and created a new organization through the Azure portal.

EXP NO: 2	AZURE DEVOPS PROJECT SETUP AND USER STORY MANAGEMENT

Aim:

To set up an Azure DevOps project for efficient collaboration and agile work management.



1. Create An Azure Account

2. Create the First Project in Your Organization

a. After the organization is set up, you'll need to create your first **project**. This is where you'll begin to manage code, pipelines, work items, and more.

b. On the organization's **Home page**, click on the **New Project** button.

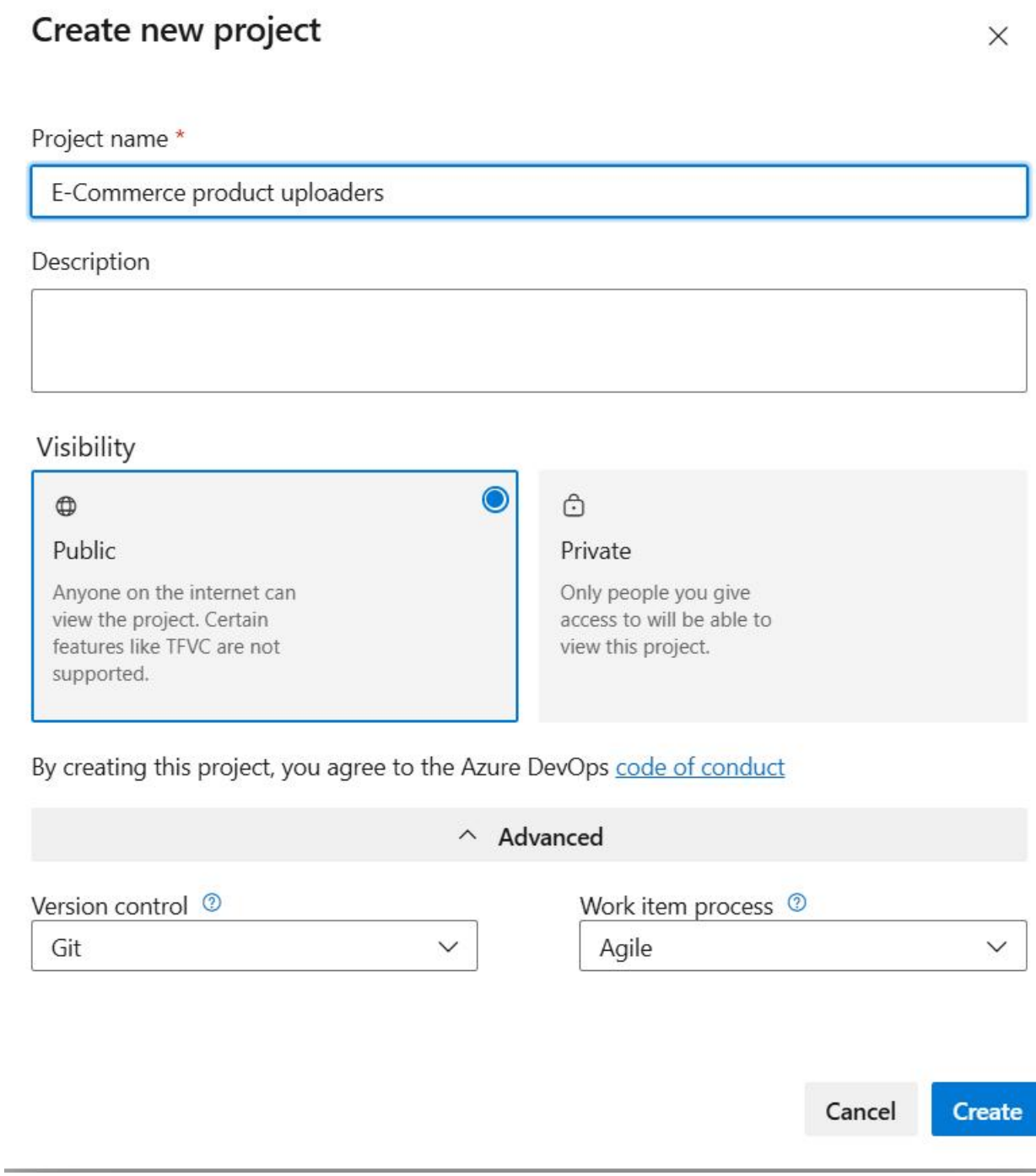
c. Enter the project name, description, and visibility options:

***Name**:* Choose a name for the project (e.g., LMS).

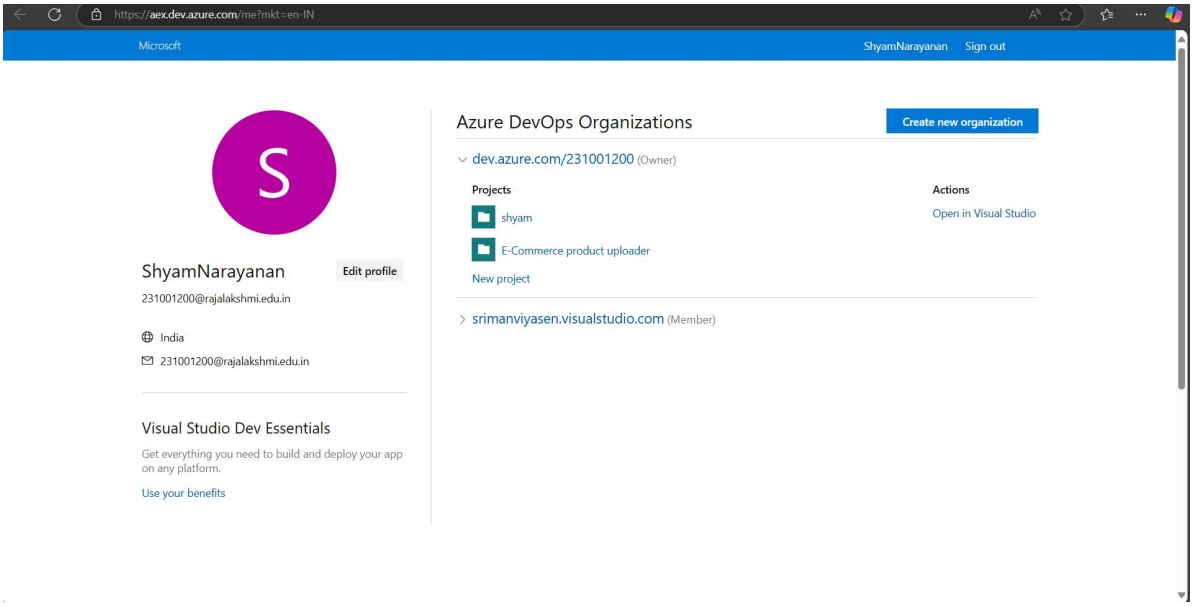
***Description**:* Optionally, add a description to provide more context about the project.

***Visibility**:* Choose whether you want the project to be **Private** (accessible only to those invited) or **Public** (accessible to anyone).

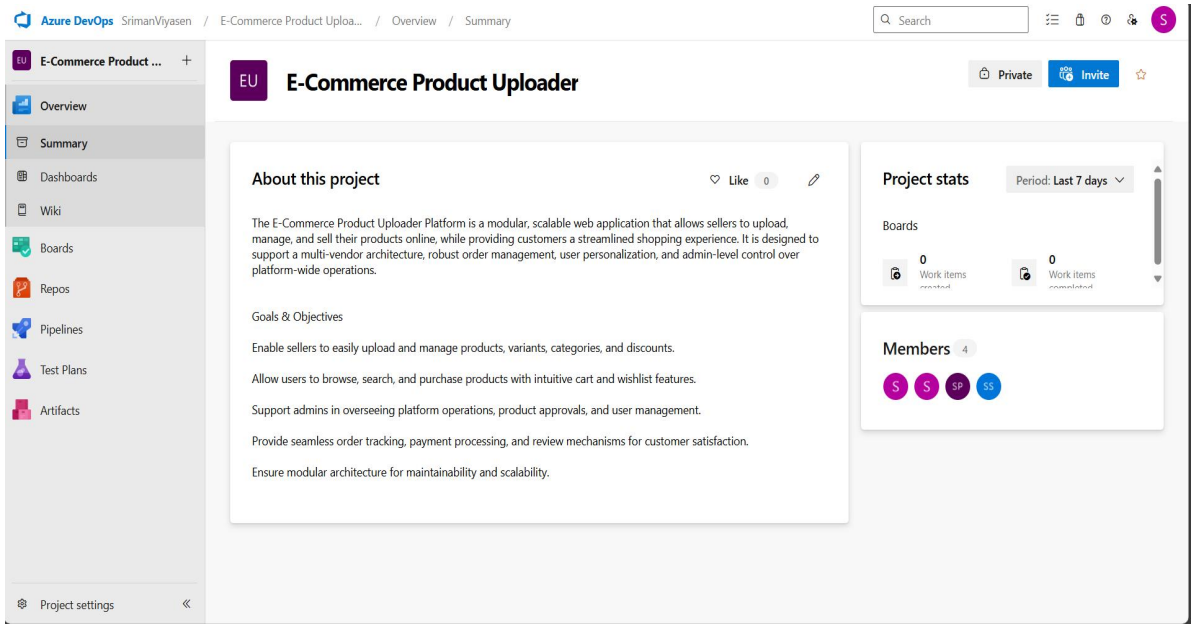
d. Once you've filled out the details, click **Create** to set up your first project.



3. Once logged in, ensure you are in the correct organization. If you're part of multiple organizations, you can switch between them from the top left corner (next to your user profile). Click on the Organization name, and you should be taken to the Azure DevOps Organization Home page.



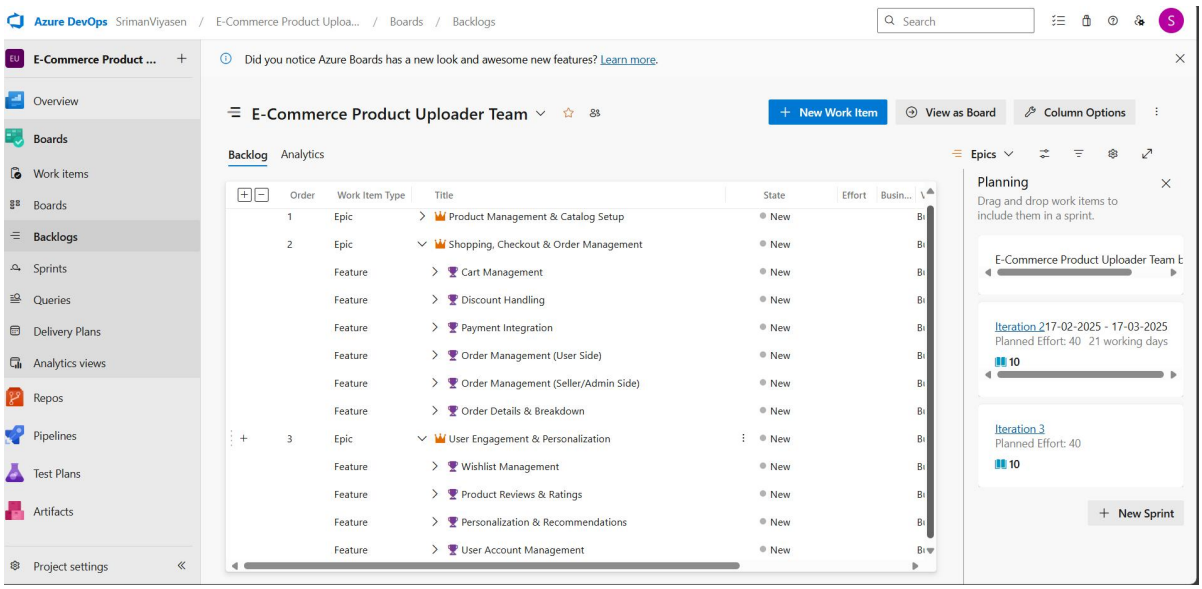
4. Project dashboard

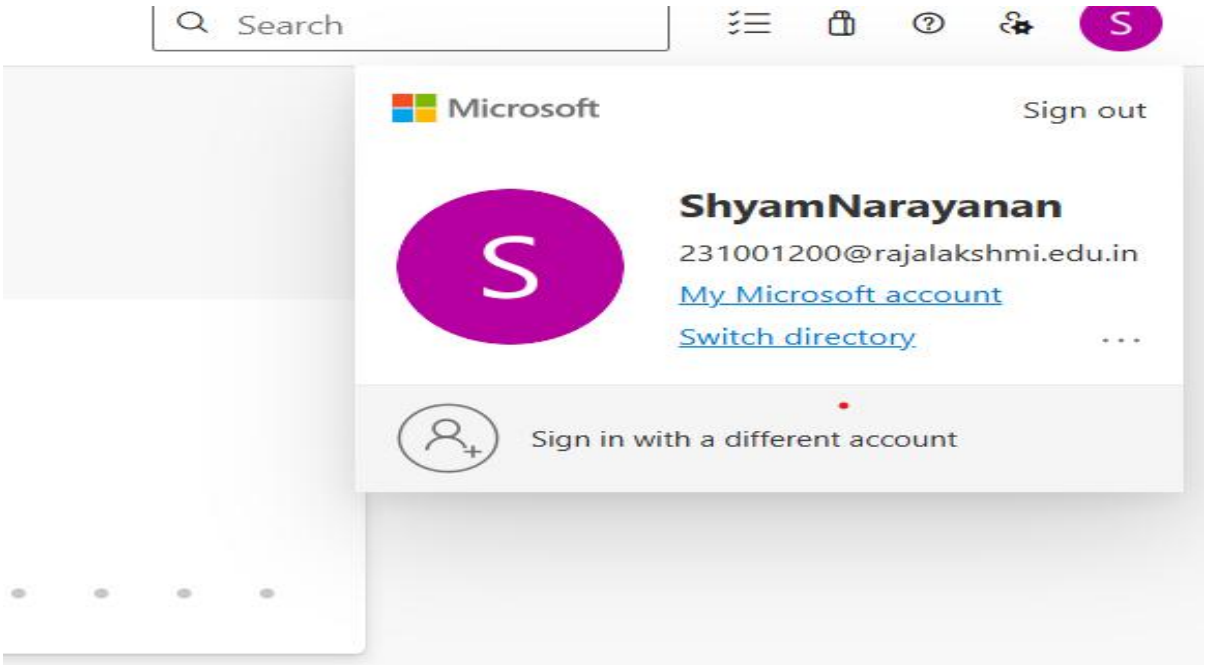


5. To manage user stories:

a. From the **left-hand navigation menu**, click on **Boards**. This will take you to the main **Boards** page, where you can manage work items, backlogs, and sprints.

b. On the **work items** page, you'll see the option to **Add a work item** at the top. Alternatively, you can find a + button or **Add New Work Item** depending on the view you're in. From the **Add a work item** dropdown, select **User Story**. This will open a form to enter details for the new User Story.





Result:

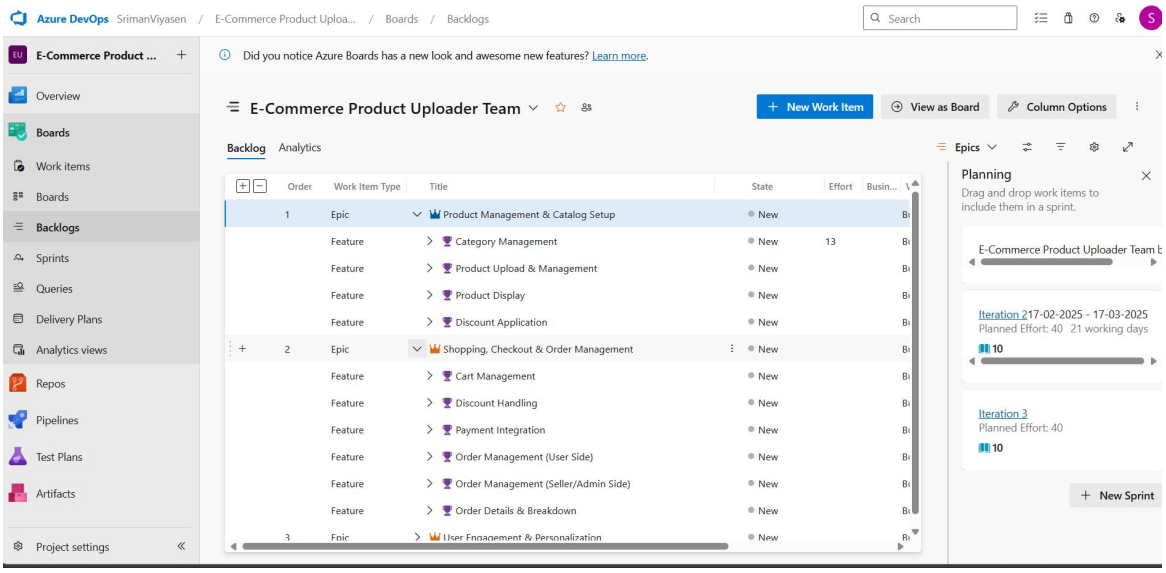
Successfully created an Azure DevOps project with user story management and agile workflow setup.

EXP NO: 3	SETTING UP EPICS, FEATURES, AND USER STORIES FOR PROJECT PLANNING

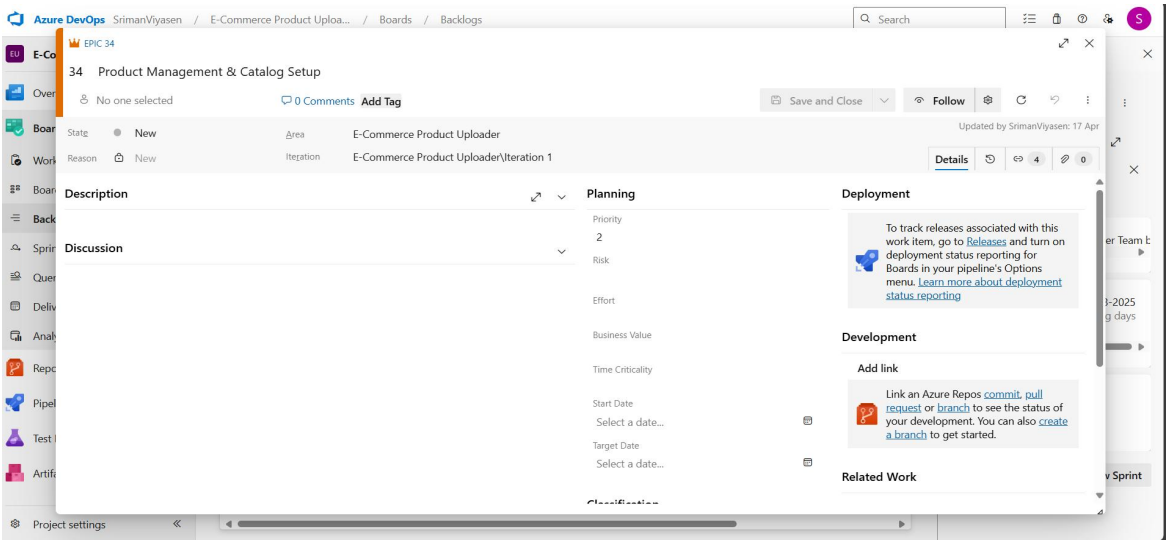
Aim:

To learn about how to create epics, user story, features, backlogs for your assigned project.

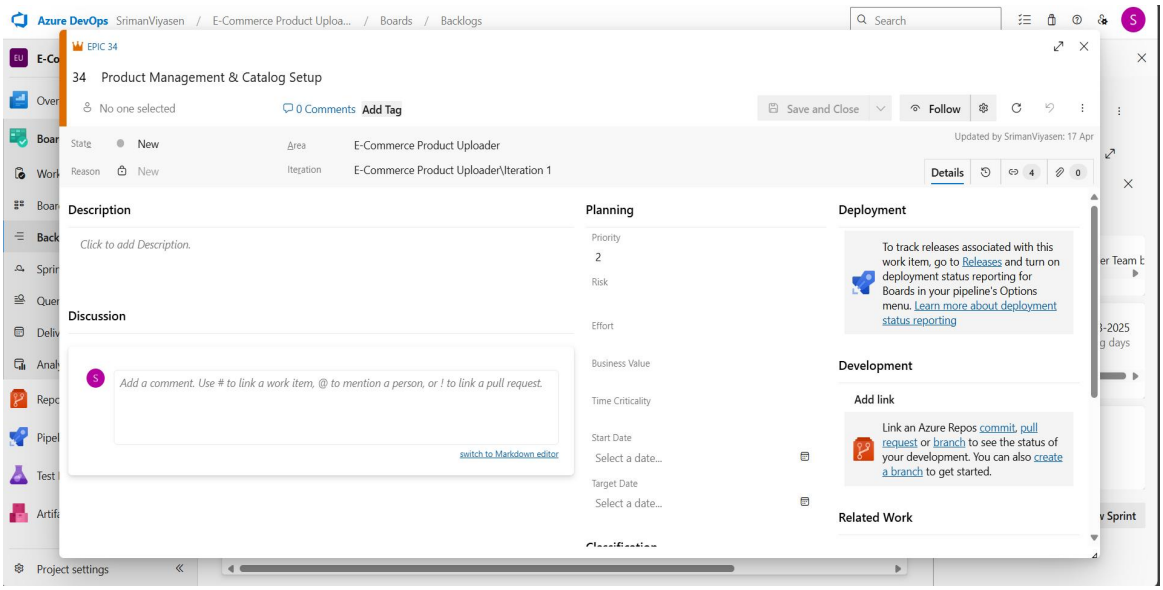
Create Epic, Features, User Stories, Task



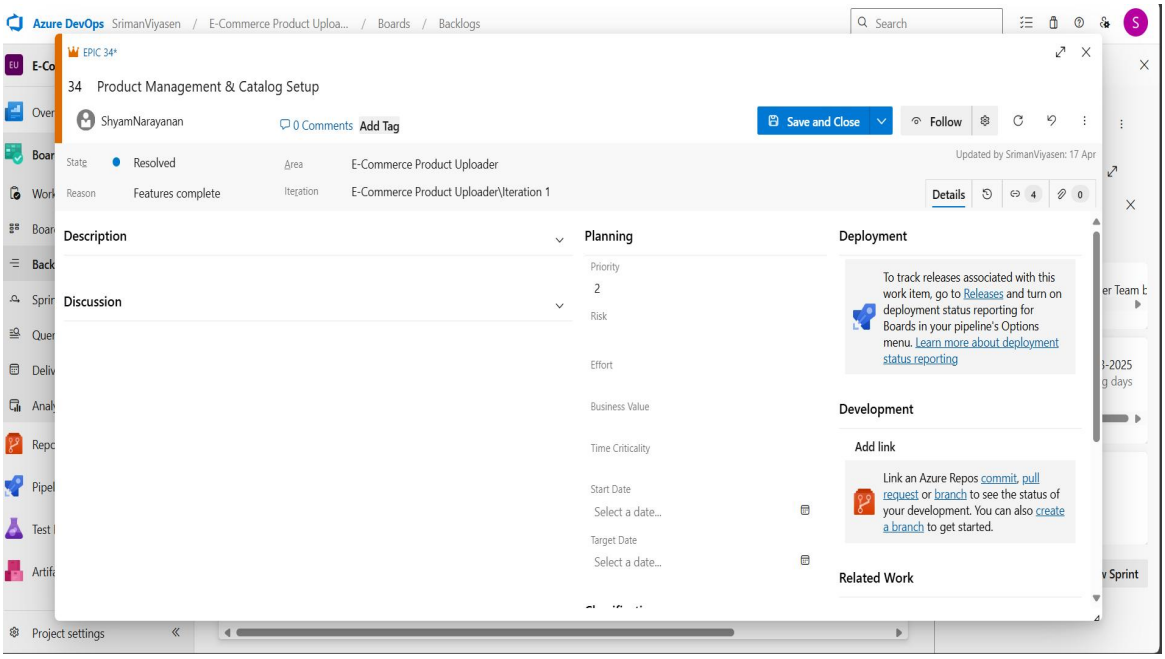
1. Fill in Epics



2. Fill in Features



3. Fill in User Story Details



Result:

Thus, the creation of epics, features, user story and task has been created successfully.

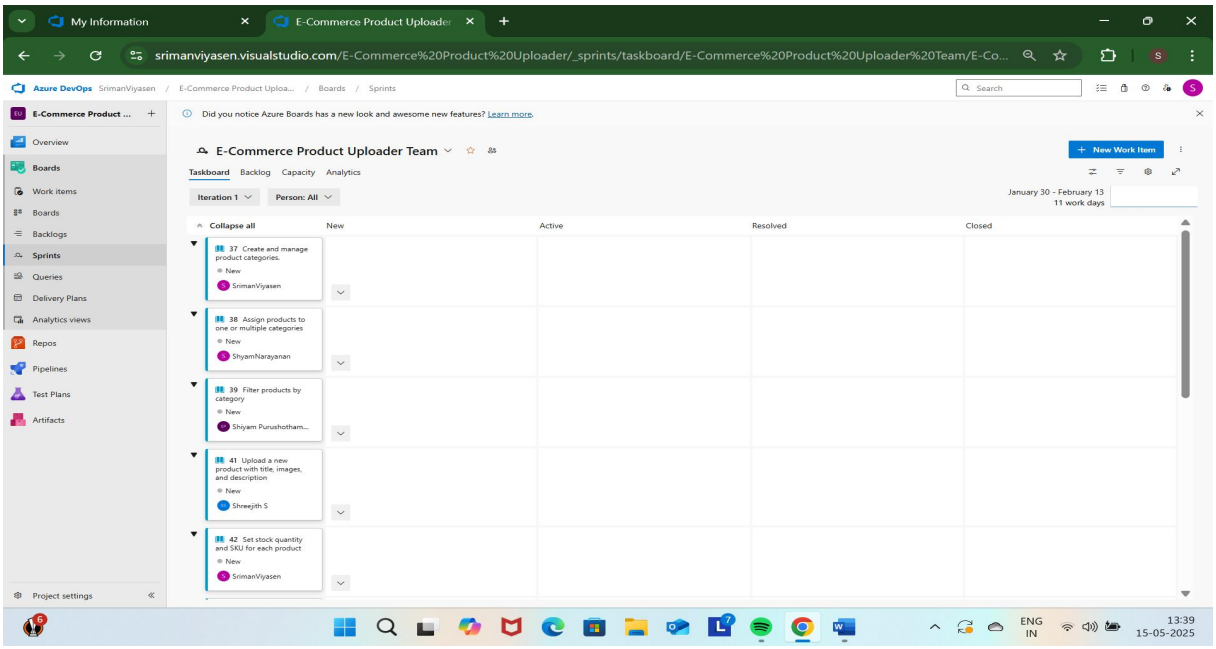
EXP NO: 4	SPRINT PLANNING

Aim:

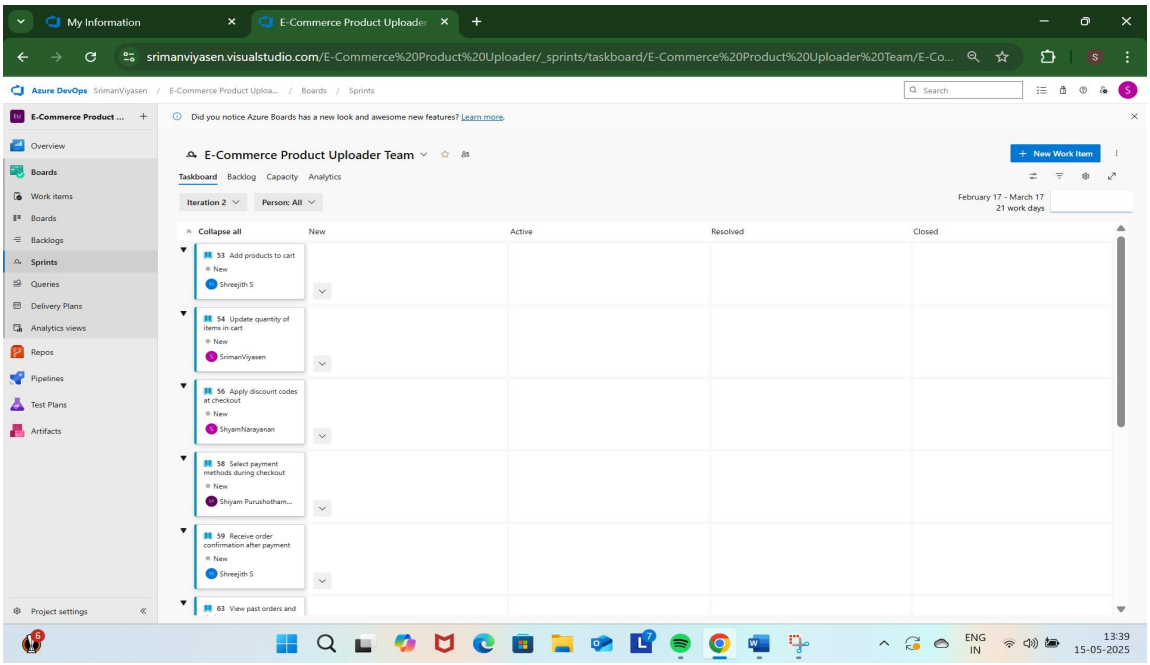
To assign user story to specific sprint for the E – Commerce Product Uploader Project.

Sprint Planning:

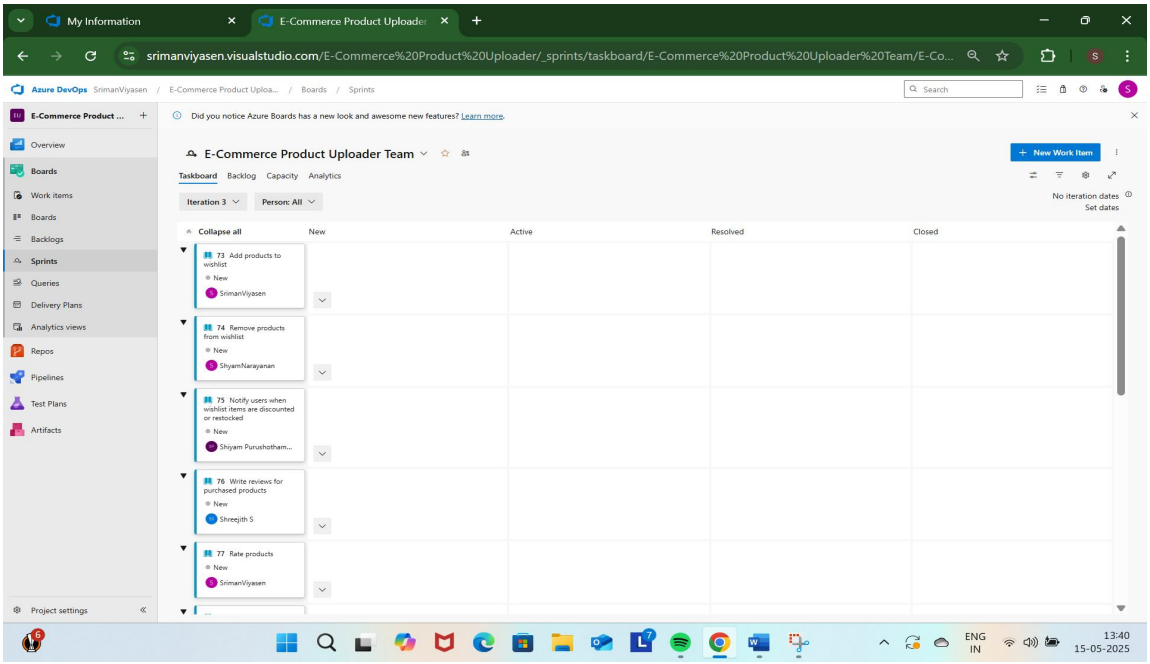
Sprint 1



Sprint 2



Sprint 3



Result:

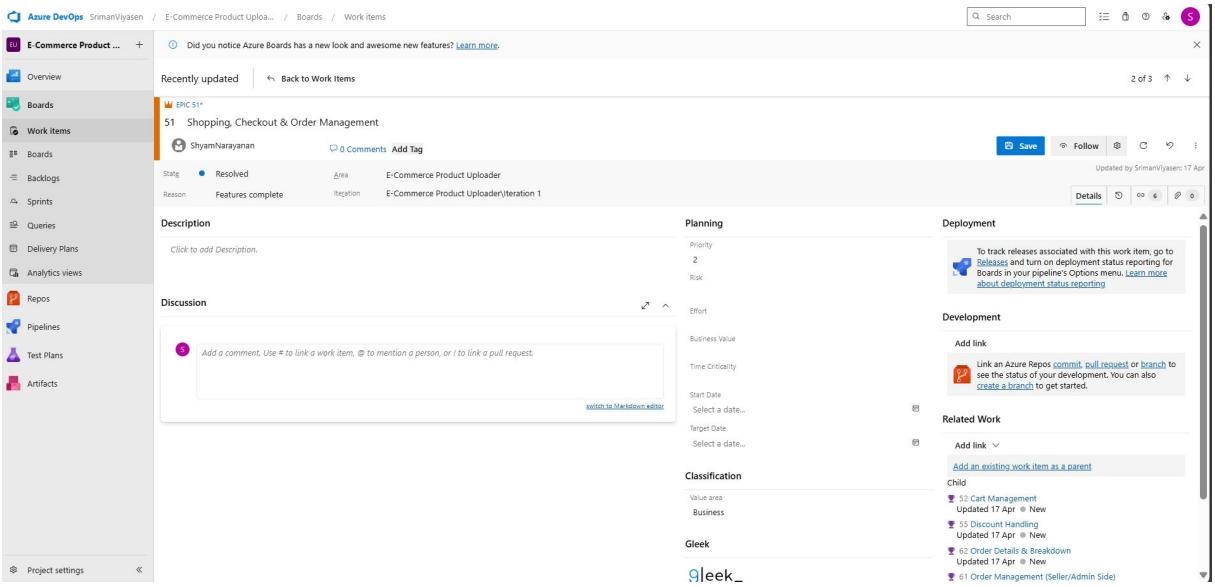
The Sprints are created for the E – Commerce Product Uploader Project.

EXP NO: 5	POKER ESTIMATION

Aim:

Create Poker Estimation for the user stories - E – Commerce Product Uploader Project.

Poker Estimation



Result:

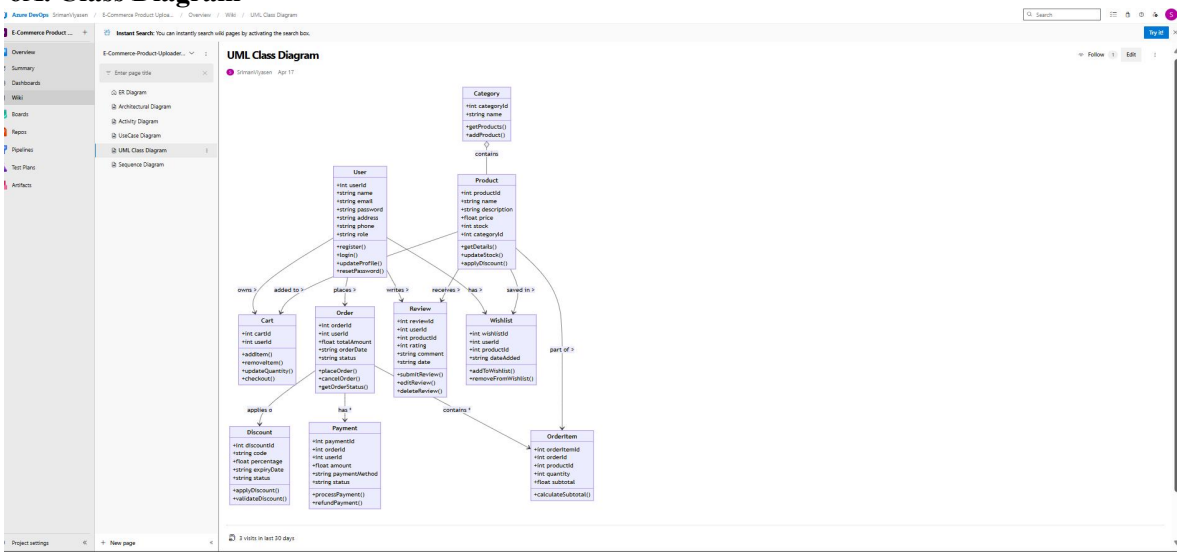
The Estimation/Story Points is created for the project using Poker Estimation.

EXP NO: 6	DESIGNING CLASS AND SEQUENCE DIAGRAMS FOR PROJECT ARCHITECTURE

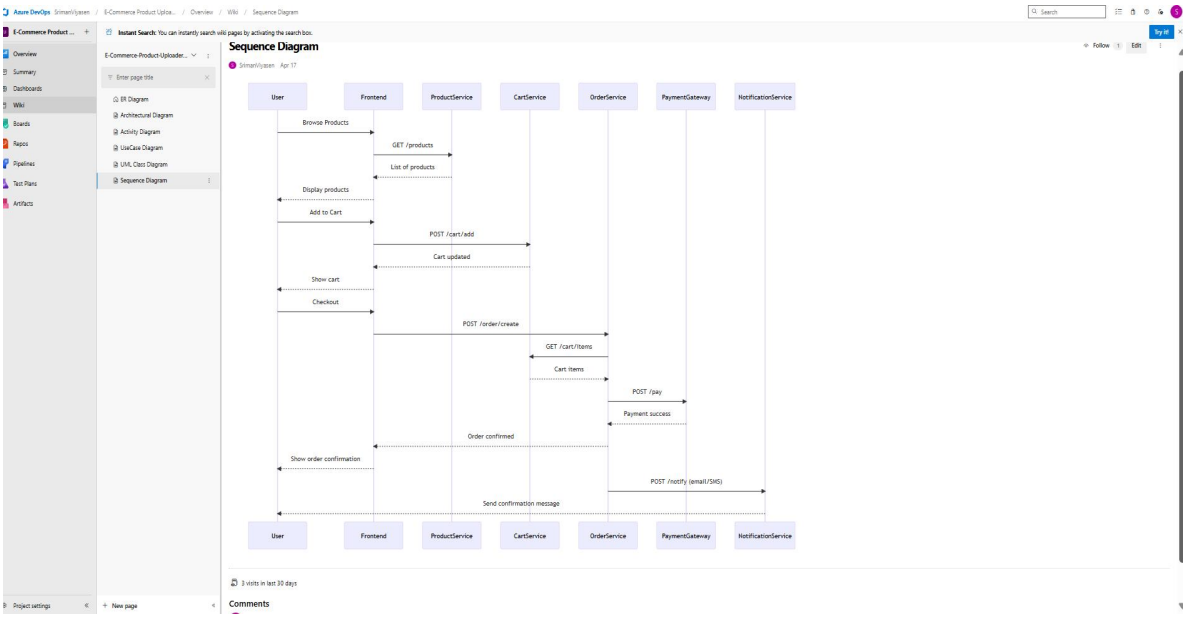
Aim:

To Design a Class Diagram and Sequence Diagram for the given Project.

6A. Class Diagram



6B. Sequence Diagram



Result:

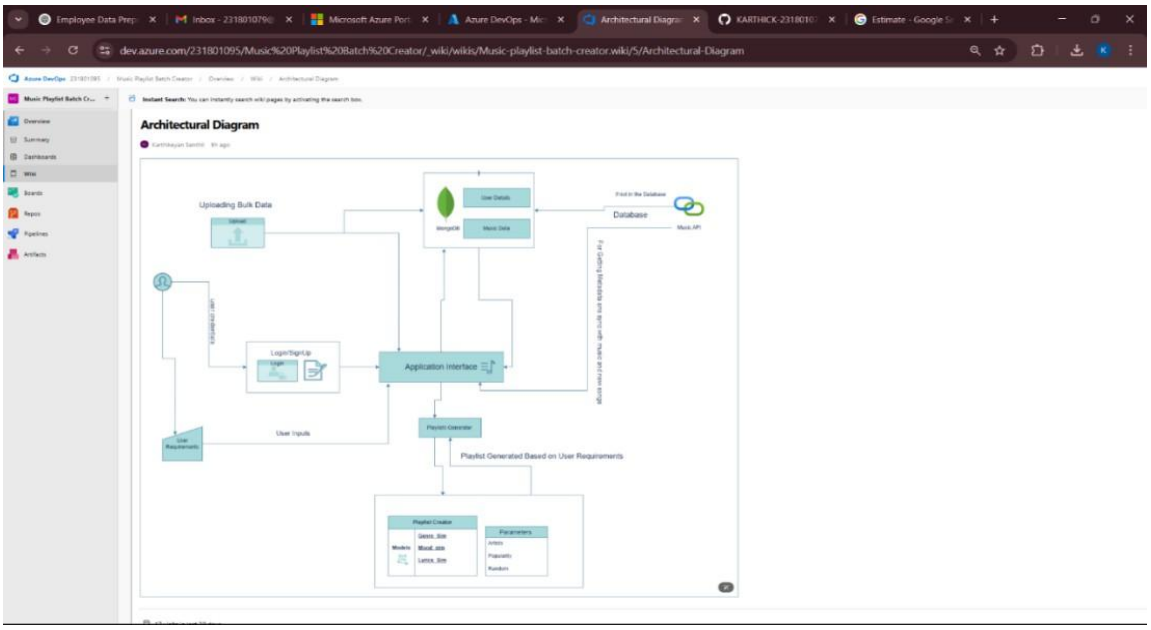
The Class Diagram and Sequence Diagram is designed Successfully for the E – Commerce Product Uploader.

EXP NO: 7	DESIGNING ARCHITECTURAL AND ER DIAGRAMS FOR PROJECT STRUCTURE

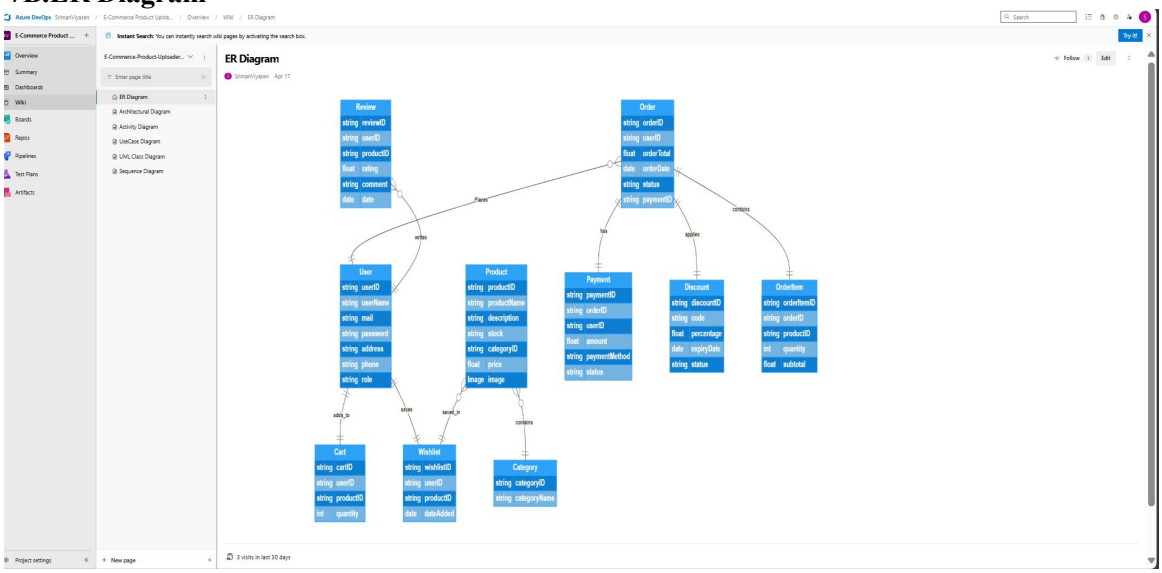
Aim:

To Design an Architectural Diagram and ER Diagram for the given Project.

7A. Architectural Diagram



7B.ER Diagram



Result:

The Architecture Diagram and ER Diagram is designed Successfully for the E – Commerce Product Uploader.

EXP NO: 8	TESTING – TEST PLANS AND TEST CASES

Aim:

Test Plans and Test Case and write two test cases for at least five user stories showcasing the happy path and error scenarios in azure DevOps platform.

Test Planning and Test Case

Test Case Design Procedure

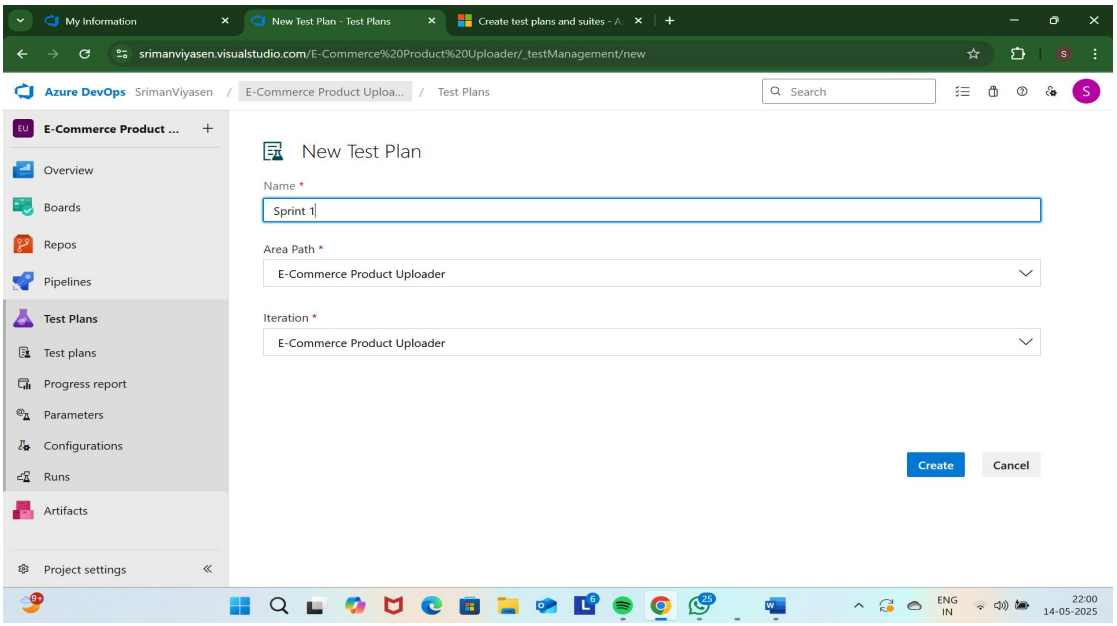
1. **Understand Core Features of the Application**
    - User Signup & Login
    - Product Upload & Management
    - Image Upload & Handling
    - Status Workflow & Approval
    - Audit Logging & Inventory Initialization
2. **Define User Interactions**
    - Each test case simulates a real user behaviour (e.g., logging in, uploading product details, adding images).
3. **Design Happy Path Test Cases**
    - Focused on validating that all features function as expected under normal conditions.
    - Example: User logs in successfully
4. **Design Error Path Test Cases**
    - Simulate negative or unexpected scenarios to test robustness and error handling.
    - Example: Login fails with invalid credentials.
5. **Break Down Steps and Expected Results**
    - Each test case contains step-by-step actions and a corresponding expected outcome.
    - Ensures clarity for both testers and automation scripts.
6. **Use Clear Naming and IDs**
    - Test cases are named clearly (e.g., TC01 - Register New User Successfully).
    - Helps in quick identification and linking to user stories or features.
7. **Separate Test Suites**
    - Grouped test cases based on functionality (e.g., Login, Upload a new product with title, images, and description).

- Improves organization and test execution flow in Azure DevOps.

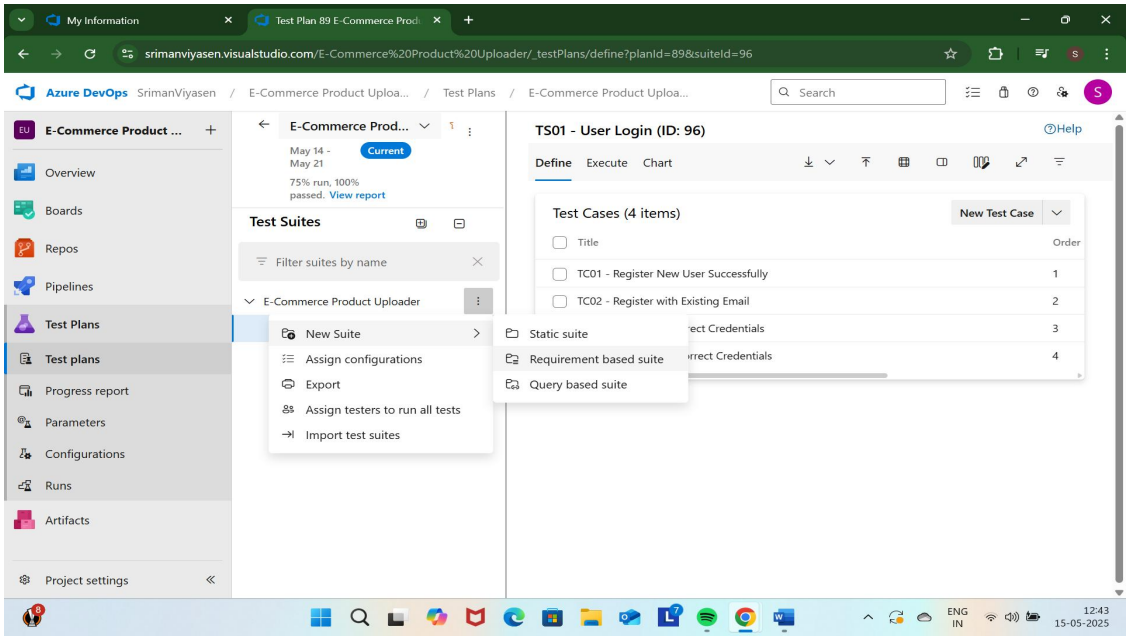
8. Prioritize and Review

- Critical user actions are marked high-priority.
- Reviewed for completeness and traceability against feature requirements.

1. New test plan



2. Test suite



3. Test case

Give two test cases for at least five user stories showcasing the happy path and error scenarios in azure DevOps platform.
E-Commerce Product Uploader – Test Plans

USER STORIES

- As a new user, I want to register and log in securely so that I can access my account and make purchases. (ID: 94).
- As a seller, I want to upload a product with title, images, and description (ID: 41).
- As a user, I want to update the quantity of items in my cart (ID: 54).
- As a user, I want to add products to my cart (ID: 53).
- As a user, I want to filter products by category (ID: 39).

Test Suites

Test Suit: TS01 - User Login (ID: 96)

1. **TC01 - Register New User Successfully :**
    - **Action:**
        - Navigate to Registration Page.
        - Enter valid name, email, and strong password.
        - Click on "Register".
    - **Expected Results:**
        - User is registered and redirected to login or dashboard**.**
    - **Type**: Happy Path

2. **TC02 - Register with Existing Email:**
    - **Action:**
        - Navigate to Registration Page.
        - Try registering with an email that's already in use.
        - Click on "Register".
    - **Expected Results:**
        - Error message like "Email already exists."
    - **Type:** Error Path

3. **TC03 – Login with Correct Credentials**
    - **Action:**
        - Navigate to Login Page.
        - Enter valid email and password.
        - Click "Login".

- **Expected Results:**
  - User is authenticated and redirected to dashboard**.**
- **Type:** Happy Path

4. **TC04 – Login with Wrong Password**
   - **Action:**
     - Navigate to Login Page.
     - Enter wrong password or email.
     - Click on "Login".
   - **Expected Results:**
     - Error message like "Invalid email or password."
   - **Type:** Error Path

Test Suit: TS02 - Upload a new product with title, images, and description (ID: 100)

1. **TC05 – Upload Product with Valid Inputs**
   - **Action:**
     - Navigate to the Seller Dashboard.
     - Click on "Add New Product".
     - Enter a valid title
     - Upload 1–5 valid images.
     - Enter a meaningful product description.
     - Click "Submit" or "Save".
   - **Expected Results:**
     - Product is saved and visible in product listing.
   - **Type:** Happy Path

2. **TC06 – Upload with Missing Title**
   - **Action:**
     - Leave the title field empty.
     - Fill in the other fields correctly.
     - Click "Submit".
   - **Expected Results:**
     - Error message displayed: "Title is required ."
   - **Type:** Error Path

3. **TC07 – Verify Uploaded Product Appears in Catalog**
   - **Action:**
     - Upload a product.
     - Navigate to "My Products" or the storefront.
   - **Expected Results:**
     - Product is visible with correct title, thumbnail image, and description.
   - **Type:** Happy Path

4. **TC08 – Image Upload Preview**
    - **Action:**
        - Upload a valid image.
    - **Expected Results:**
        - Preview of the image is shown before submitting**.**
    - **Type:** Happy Path

Test Suit: TS03 - Cart Item Quantity Management (ID: 107)

1. **TC09 – Increase Quantity in Cart**
    - **Action:**
        - Add an item to the cart.
        - Navigate to the cart page.
        - Click the "+" button next to the quantity.
    - **Expected Results:**
        - Quantity increases by 1, and subtotal/total update accordingly.
    - **Type:** Happy Path

2. **TC10 – Decrease Quantity in Cart**
    - **Action:**
        - Ensure quantity is greater than 1.
        - Click the "–" button next to the item.
    - **Expected Results:**
        - Quantity decreases by 1, and subtotal/total update correctly.
    - **Type:** Happy Path

3. **TC11 – Set Quantity to Zero**
    - **Action:**
        - Manually set quantity to 0 or press "–" until 0 is reached.
    - **Expected Results:**
        - Item disappears from cart, and total recalculates.
    - **Type:** Happy Path

4. **TC12 – Subtotal and Total Update Instantly**
    - **Action:**
        - Change the quantity of an item.
        - Observe subtotal for that item and total at bottom.
    - **Expected Results:**
        - Subtotal and total should update immediately without page refresh
    - **Type:** Happy Path

Test Suit: TS04 - Add products to cart (ID: 112)

1. **TC13 – Generate Playlist Based on Various Categories**
    - **Action:**
        - Go to the product listing/catalogue page.
        - Click on “Add to Cart” for any visible product
    - **Expected Results:**
        - The product is added to cart.
        - Cart count increases.
        - Confirmation message appears.
    - **Type:** Happy Path

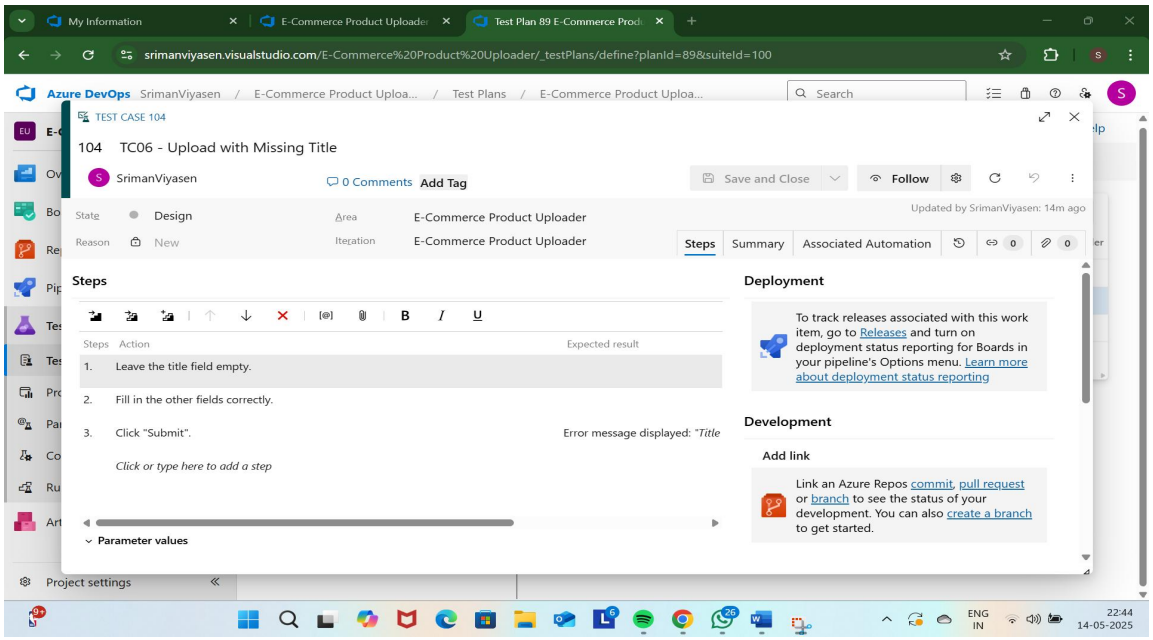
2. **TC14 – Add Product from Product Detail Page**
    - **Action:**
        - Click on a product to view details.
        - Click the “Add to Cart” button.
    - **Expected Results:**
        - Product is added to cart, and user is notified.
    - **Type:** Happy Path

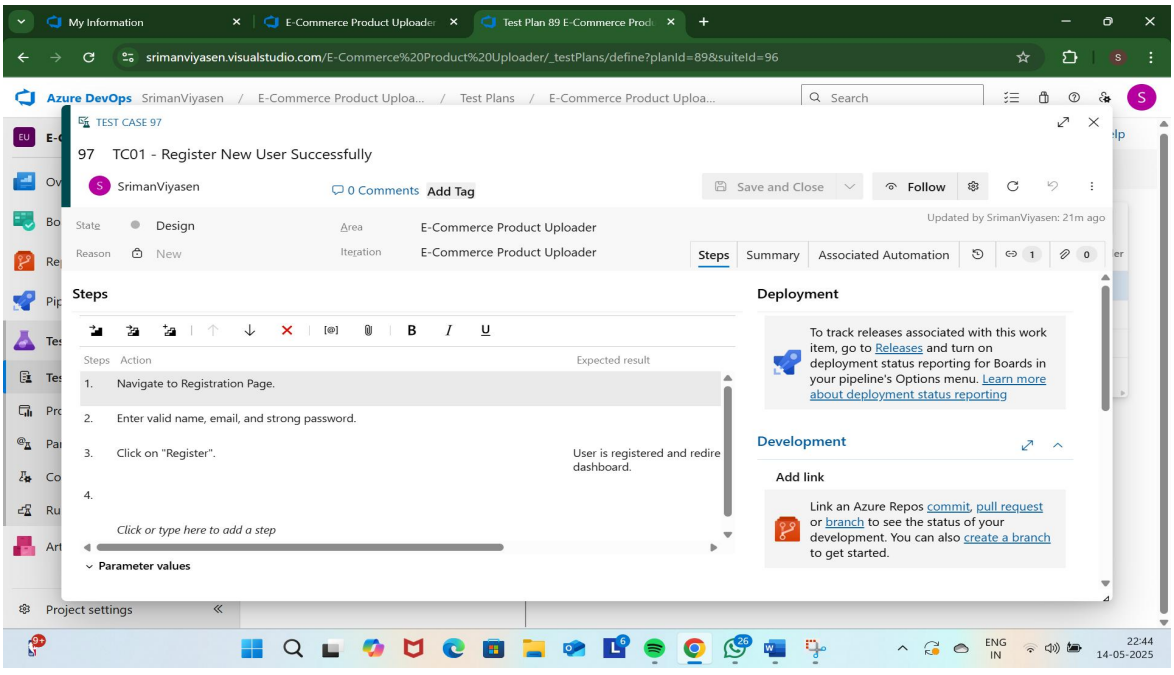
Test Suit: TS05 - Filter products by category (ID: 115)

1. **TC15 – Filter Products by Single Category**
    - **Action:**
        - Navigate to the product listing page.
        - Select a category from the sidebar or dropdown (e.g., "Electronics").
    - **Expected Results:**
        - Only products in the "Electronics" category are displayed.
    - **Type:** Happy Path

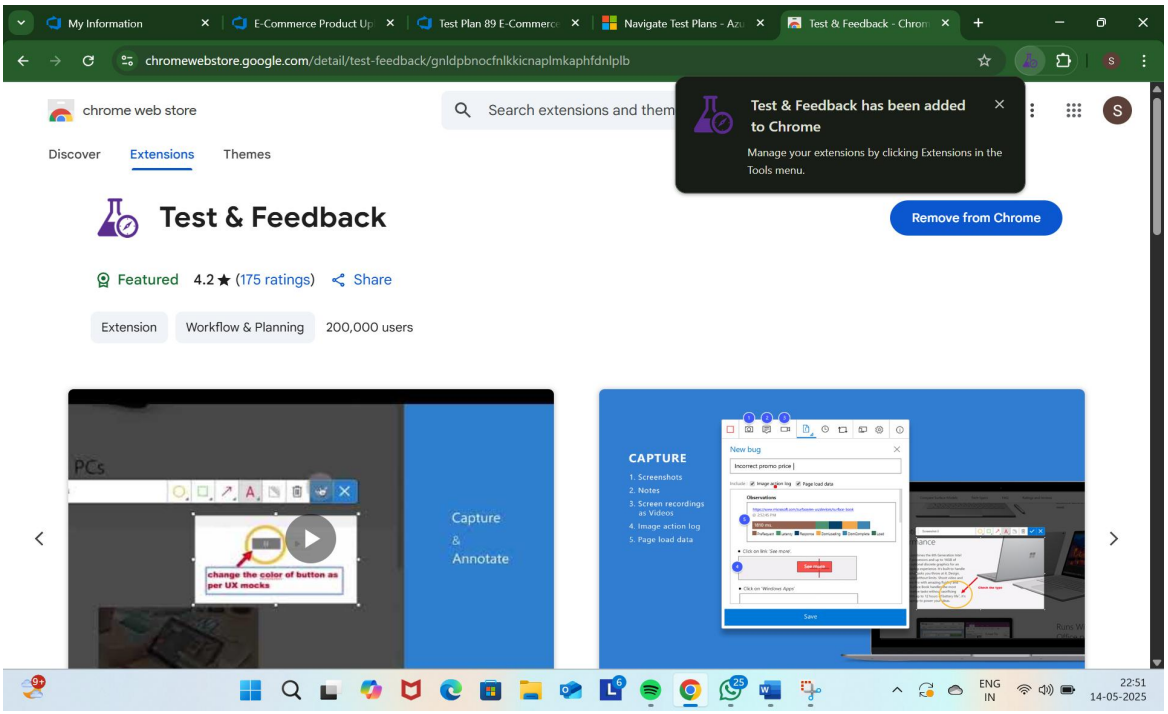
2. **TC16 – Filter Products by Multiple Categories**
    - **Action:**
        - Select multiple categories (e.g., "Electronics" and "Accessories").
    - **Expected Results:**
        - Products from both selected categories are displayed.
    - **Type:** Happy Path

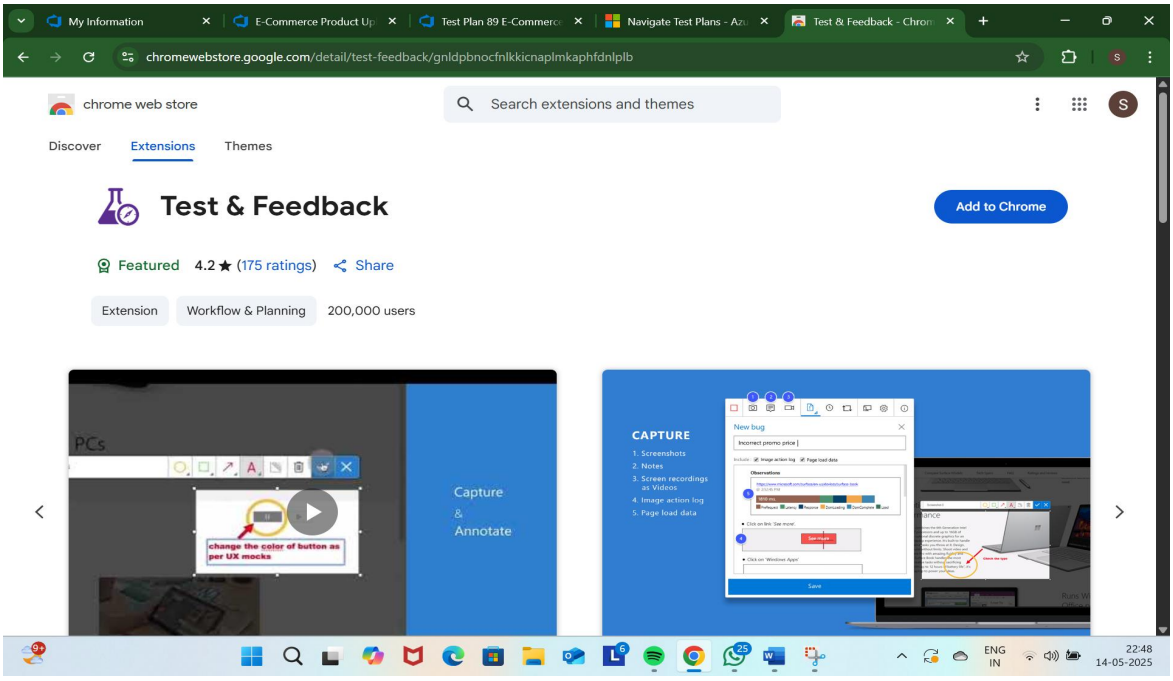
Test Cases


srimanviyasen.visualstudio.com/E-Commerce%20Product%20Uploader/_testPlans/define?planId=89&suiteId=100
TEST CASE 104
104 TC06 - Upload with Missing Title
SrimanViyasen
0 Comments Add Tag
Save and Close
Follow
State Design
Reason New
Area E-Commerce Product Uploader
Iteration E-Commerce Product Uploader
Updated by SrimanViyasen: 14m ago
Steps Summary Associated Automation
Steps
Steps Action Expected result
1. Leave the title field empty.
2. Fill in the other fields correctly.
3. Click "Submit". Error message displayed: "Title
Click or type here to add a step
Parameter values
Deployment
To track releases associated with this work item, go to Releases and turn on deployment status reporting for Boards in your pipeline's Options menu. Learn more about deployment status reporting
Development
Add link
Link an Azure Repos commit, pull request or branch to see the status of your development. You can also create a branch to get started.
Project settings
22:44
14-05-2025

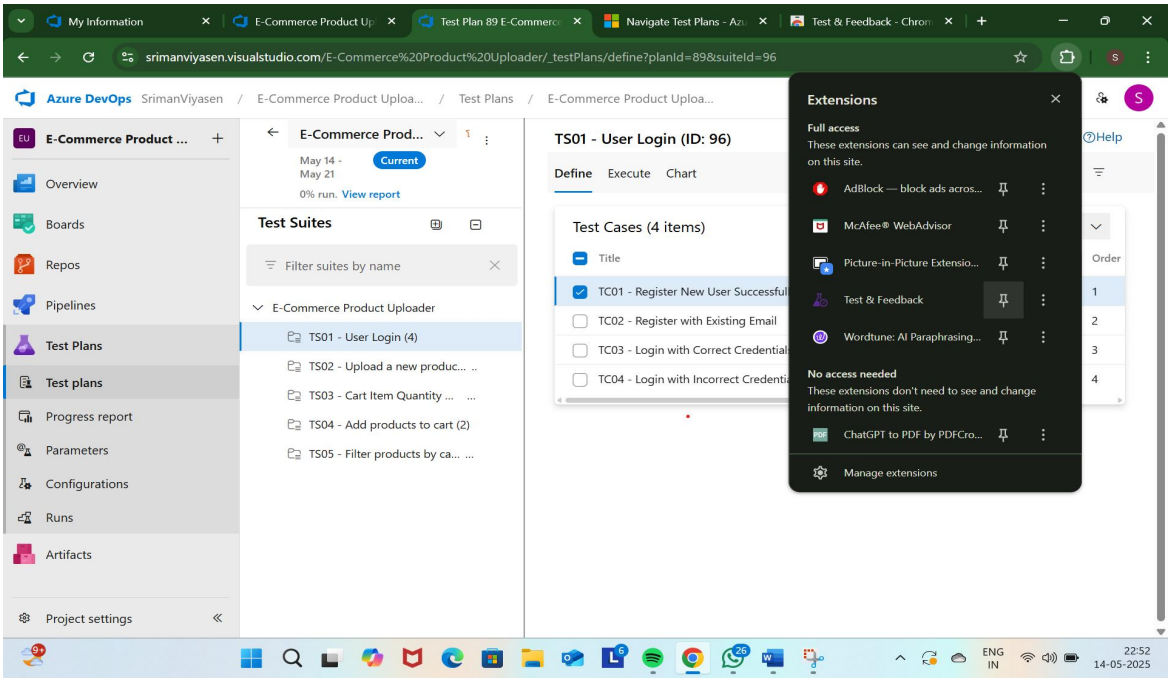

srimanviyasen.visualstudio.com/E-Commerce%20Product%20Uploader/_testPlans/define?planId=89&suiteId=96
TEST CASE 97
97 TC01 - Register New User Successfully
SrimanViyasen
0 Comments Add Tag
Save and Close
Follow
State Design
Reason New
Area E-Commerce Product Uploader
Iteration E-Commerce Product Uploader
Updated by SrimanViyasen: 21m ago
Steps Summary Associated Automation
Steps
Steps Action Expected result
1. Navigate to Registration Page.
2. Enter valid name, email, and strong password.
3. Click on "Register". User is registered and redire dashboard.
4.
Click or type here to add a step
Parameter values
Deployment
To track releases associated with this work item, go to Releases and turn on deployment status reporting for Boards in your pipeline's Options menu. Learn more about deployment status reporting
Development
Add link
Link an Azure Repos commit, pull request or branch to see the status of your development. You can also create a branch to get started.
Project settings
22:44
14-05-2025

4. Installation of test

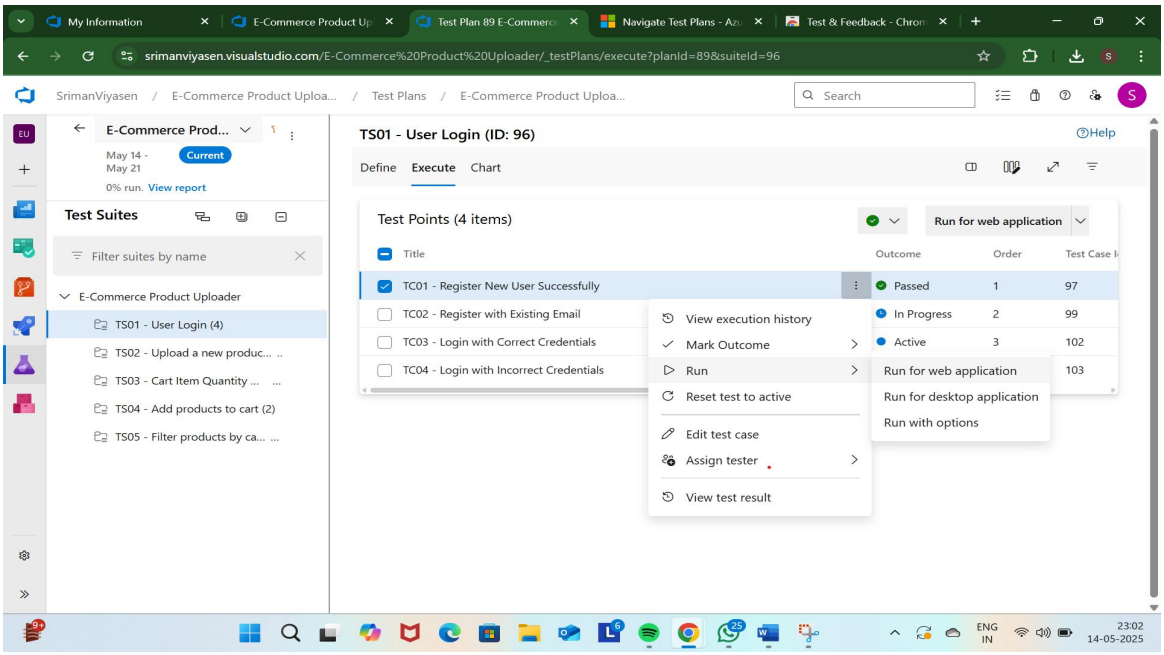




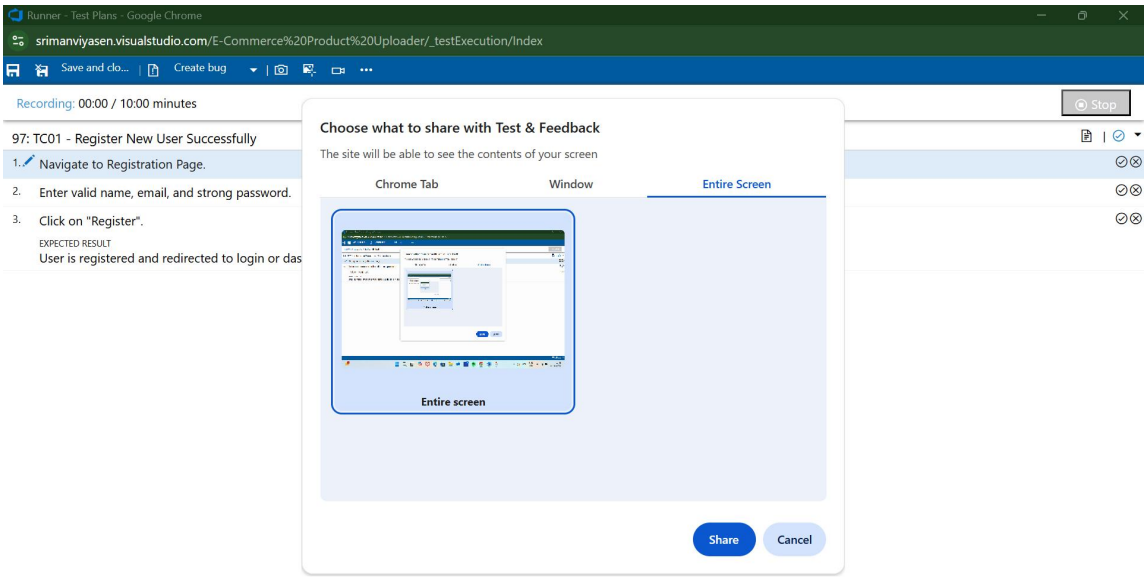
Test and feedback
Showing it as an extension



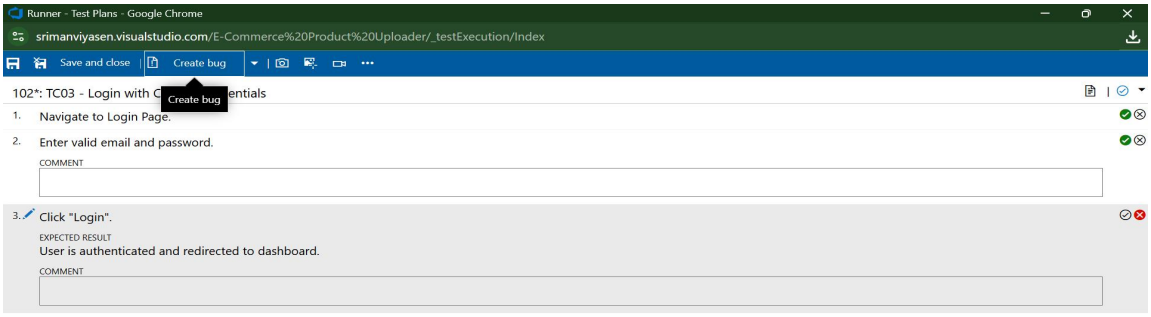
5. Running the test cases

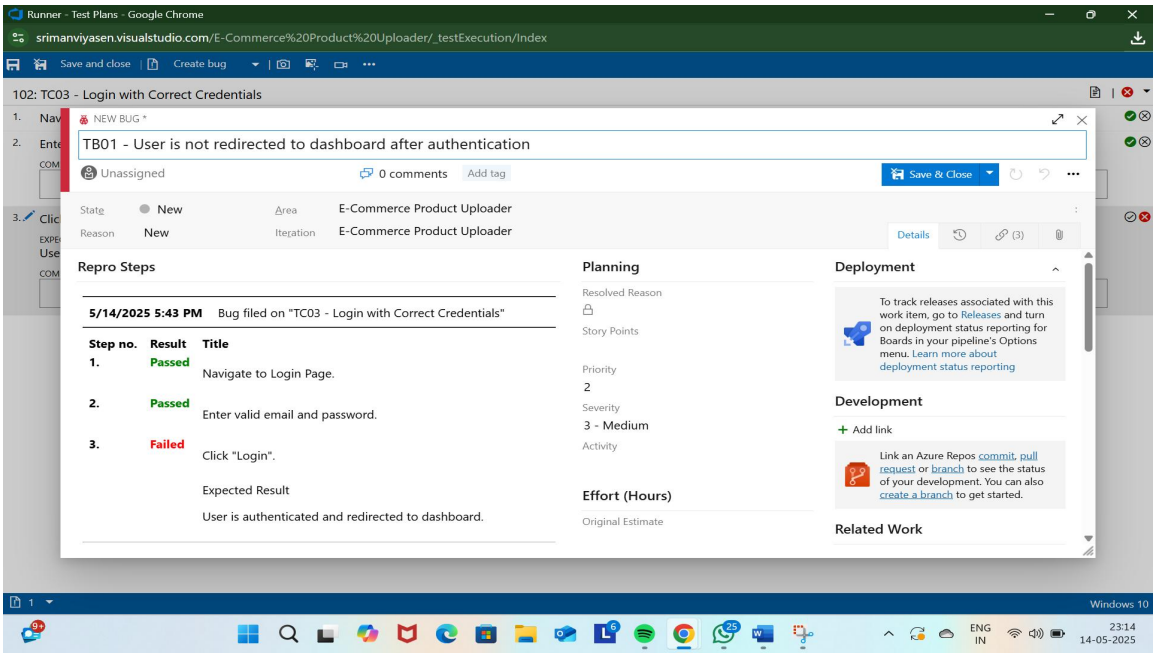


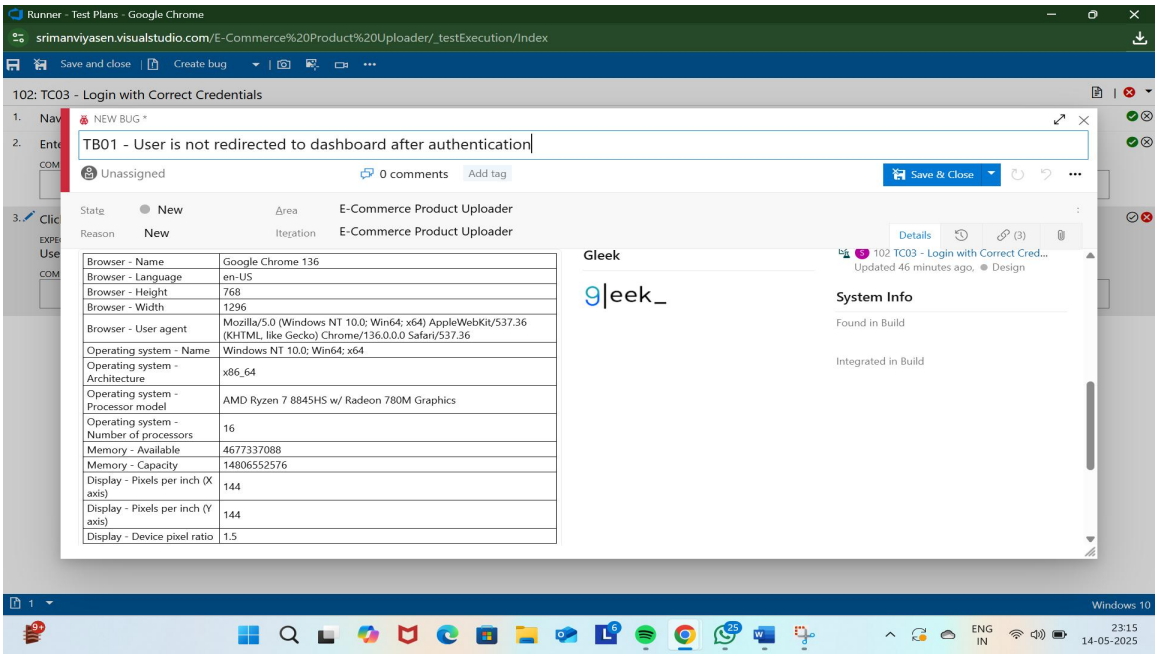
6. Recording the test case



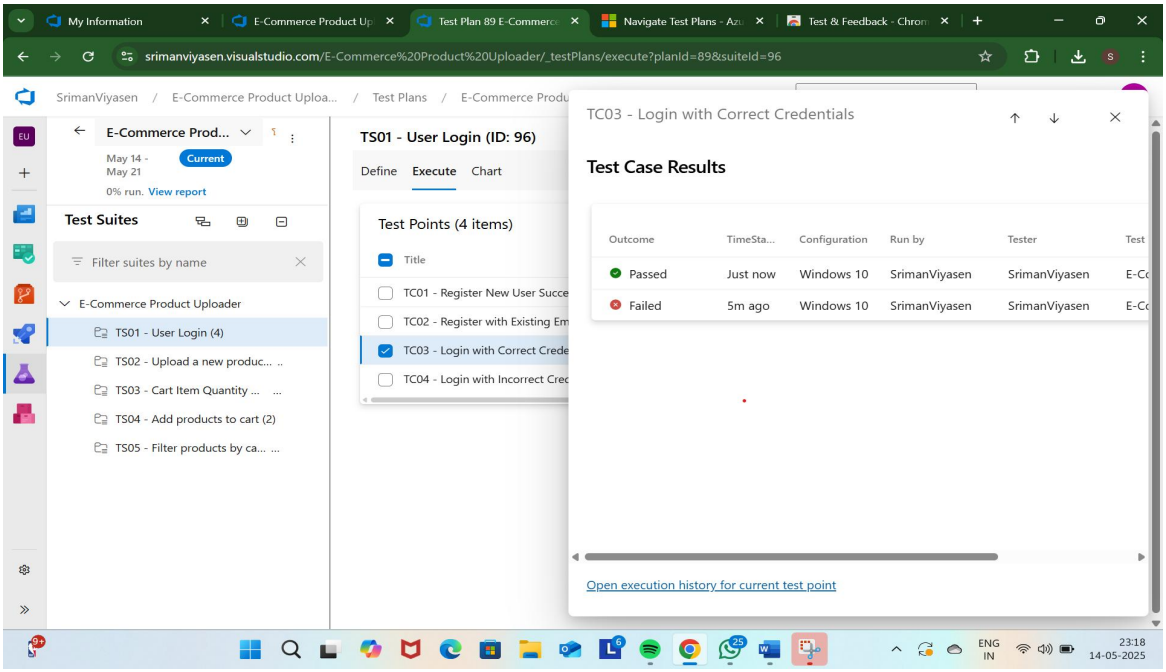
7. Creating the bug



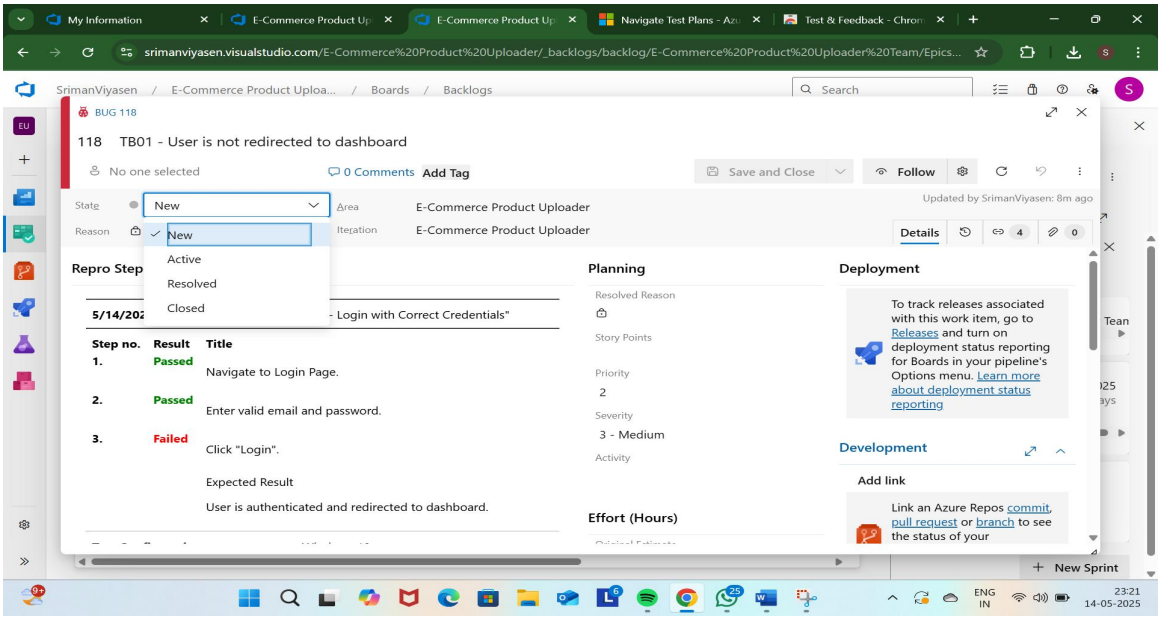

Runner - Test Plans - Google Chrome
srimanviyasen.visualstudio.com/E-Commerce%20Product%20Uploader/_testExecution/Index
Save and close
Create bug
102: TC03 - Login with Correct Credentials
NEW BUG *
TB01 - User is not redirected to dashboard after authentication
Unassigned
0 comments
Add tag
Save & Close
State
New
Area
E-Commerce Product Uploader
Reason
New
Iteration
E-Commerce Product Uploader
Details
Repro Steps
5/14/2025 5:43 PM Bug filed on "TC03 - Login with Correct Credentials"
Step no. Result Title
1. Passed
Navigate to Login Page.
2. Passed
Enter valid email and password.
3. Failed
Click "Login".
Expected Result
User is authenticated and redirected to dashboard.
Planning
Resolved Reason
Story Points
Priority
2
Severity
3 - Medium
Activity
Effort (Hours)
Original Estimate
Deployment
To track releases associated with this work item, go to Releases and turn on deployment status reporting for Boards in your pipeline's Options menu. Learn more about deployment status reporting
Development
+ Add link
Link an Azure Repos commit, pull request or branch to see the status of your development. You can also create a branch to get started.
Related Work
Windows 10
ENG
IN
23:14
14-05-2025


Runner - Test Plans - Google Chrome
srimanviyasen.visualstudio.com/E-Commerce%20Product%20Uploader/_testExecution/Index
Save and close
Create bug
102: TC03 - Login with Correct Credentials
NEW BUG *
TB01 - User is not redirected to dashboard after authentication
Unassigned
0 comments
Add tag
Save & Close
State
New
Area
E-Commerce Product Uploader
Reason
New
Iteration
E-Commerce Product Uploader
Details
Browser - Name Google Chrome 136
Browser - Language en-US
Browser - Height 768
Browser - Width 1296
Browser - User agent Mozilla/5.0 (Windows NT 10.0; Win64; x64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/136.0.0.0 Safari/537.36
Operating system - Name Windows NT 10.0; Win64; x64
Operating system - Architecture x86_64
Operating system - Processor model AMD Ryzen 7 8845HS w/ Radeon 780M Graphics
Operating system - Number of processors 16
Memory - Available 4677337088
Memory - Capacity 14806552576
Display - Pixels per inch (X axis) 144
Display - Pixels per inch (Y axis) 144
Display - Device pixel ratio 1.5
Gleek
9|eek_
102 TC03 - Login with Correct Cred...
Updated 46 minutes ago, Design
System Info
Found in Build
Integrated in Build
Windows 10
ENG
IN
23:15
14-05-2025

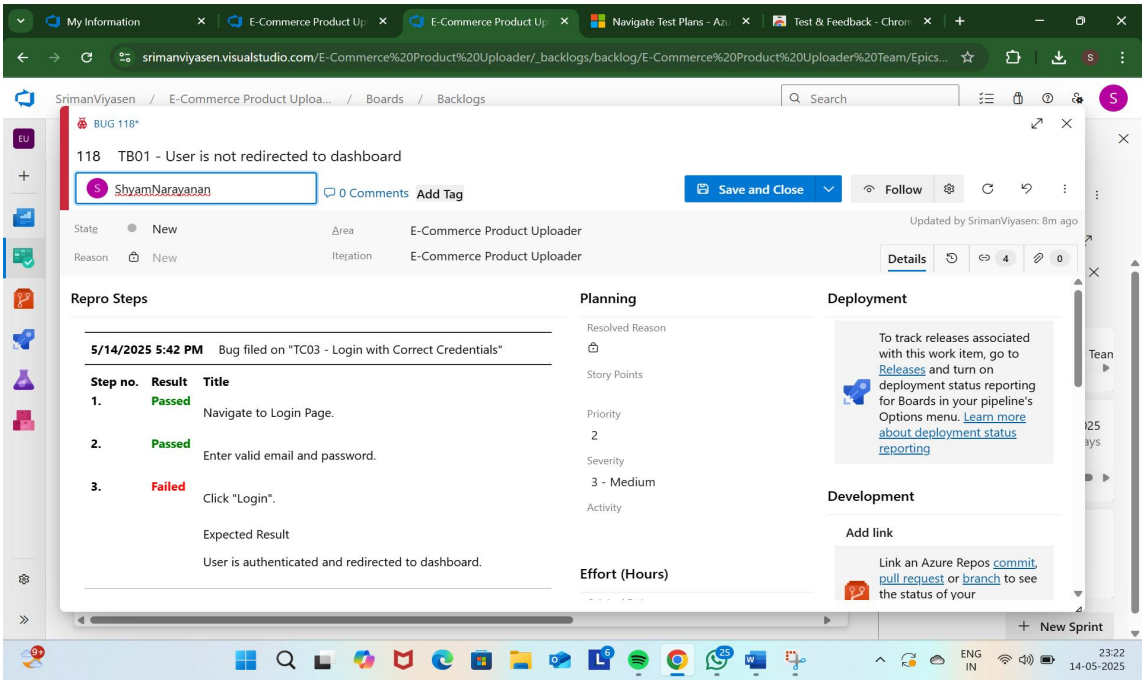
8. Test case results



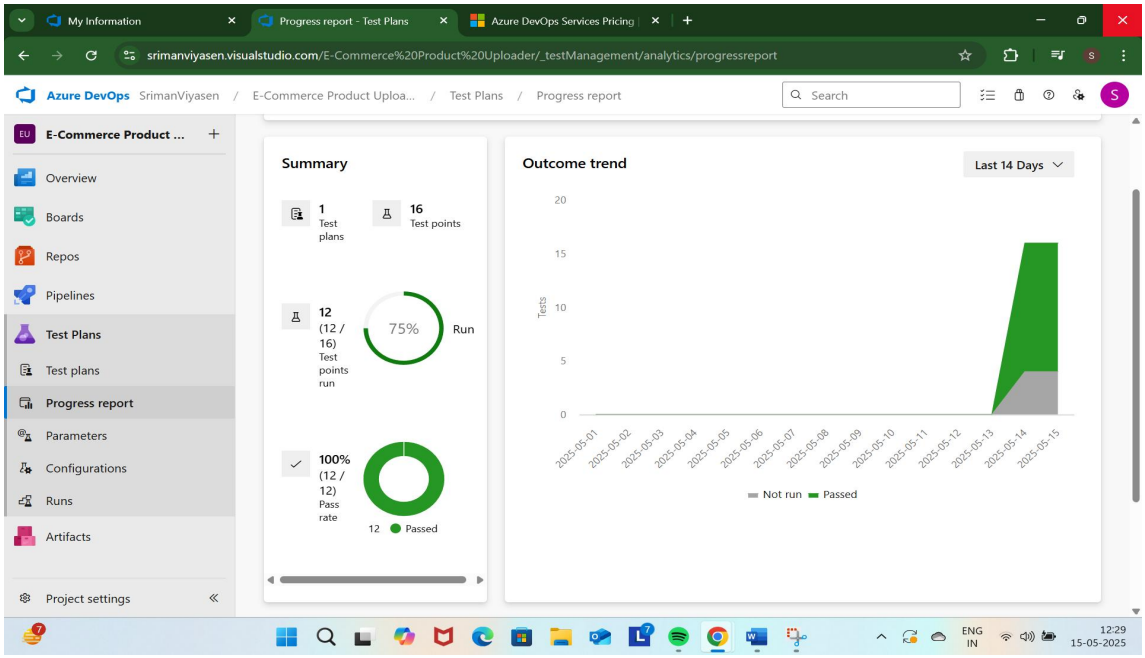
9. Test report summary



- Assigning bug to the developer and changing state.



10. Progress report



Result:

The test plans and test cases for the user stories is created in Azure DevOps with Happy Path and Error Path

EXP NO: 9	LOAD TESTING AND PERFORMANCE TESTING

Aim:

To create an Azure Load Testing resource and run a load test to evaluate the performance of a target endpoint.

Load Testing

Steps to Create an Azure Load Testing Resource:

Before you run your first test, you need to create the Azure Load Testing resource:

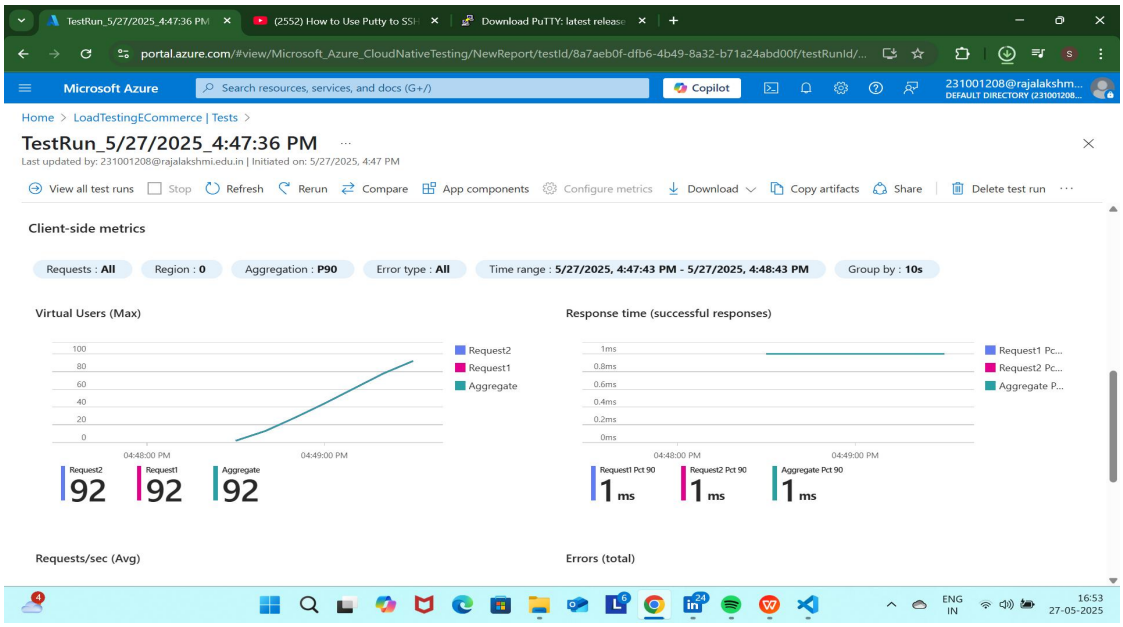
1. Sign in to Azure Portal
   Go to https://portal.azure.com and log in.
2. Create the Resource
   - Go to *Create a resource* → Search for "Azure Load Testing".
   - Select Azure Load Testing and click Create.
3. Fill in the Configuration Details
   - Subscription*:* Choose your Azure subscription.
   - *Resource Group:* Create new or select an existing one.
   - *Name:* Provide a unique name (no special characters).
   - *Location:* Choose the region for hosting the resource.
4. (Optional) Configure tags for categorization and billing.
5. Click Review + Create, then Create.
6. Once deployment is complete, click Go to resource.

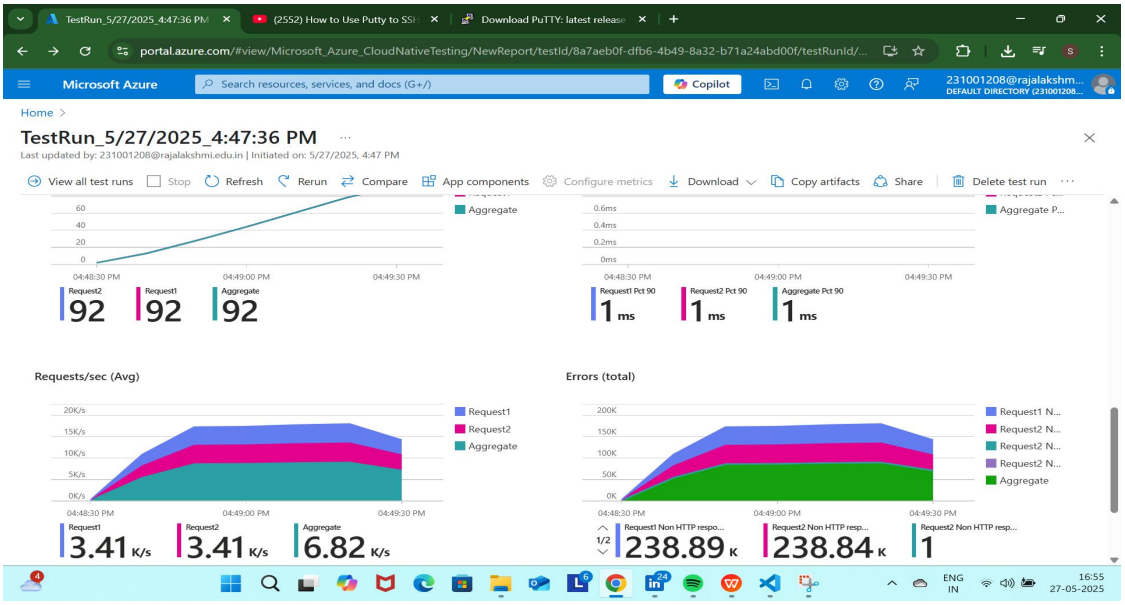
Steps to Create and Run a Load Test:

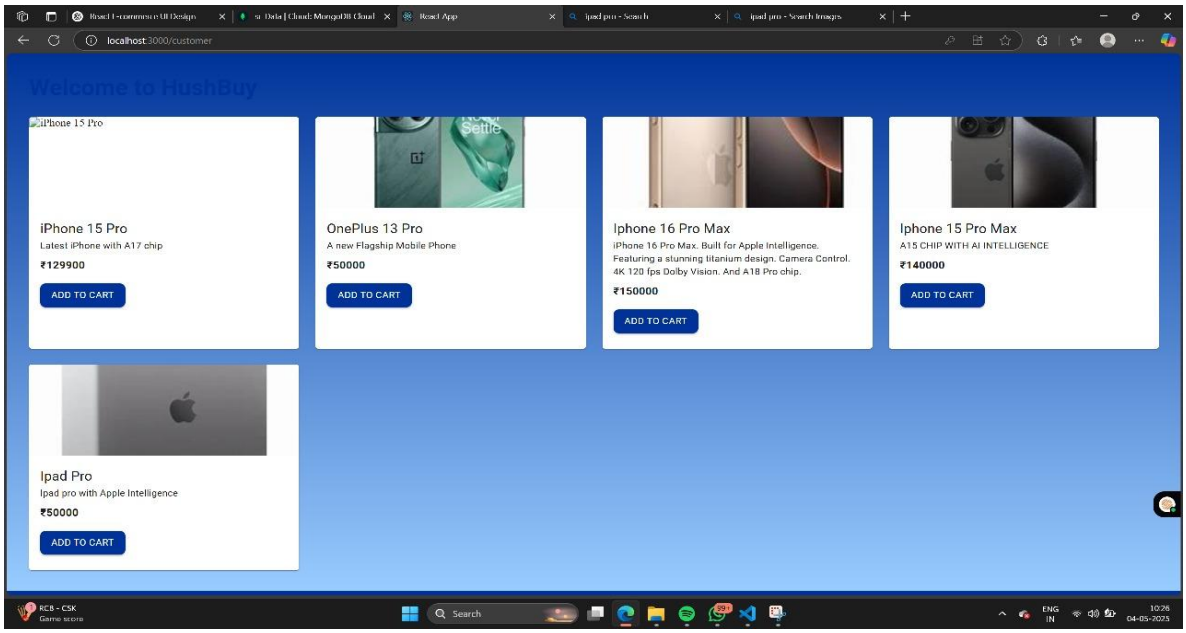
Once your resource is ready:

1. Go to your Azure Load Testing resource and click Add HTTP requests > Create.
2. Basics Tab
   - *Test Name:* Provide a unique name.
   - *Description:* (Optional) Add test purpose.
   - *Run After Creation:* Keep checked.
3. Load Settings
   - *Test URL:* Enter the target endpoint (e.g., https://yourapi.com/products).
4. Click Review + Create → Create to start the test.

Load Testing







Result:

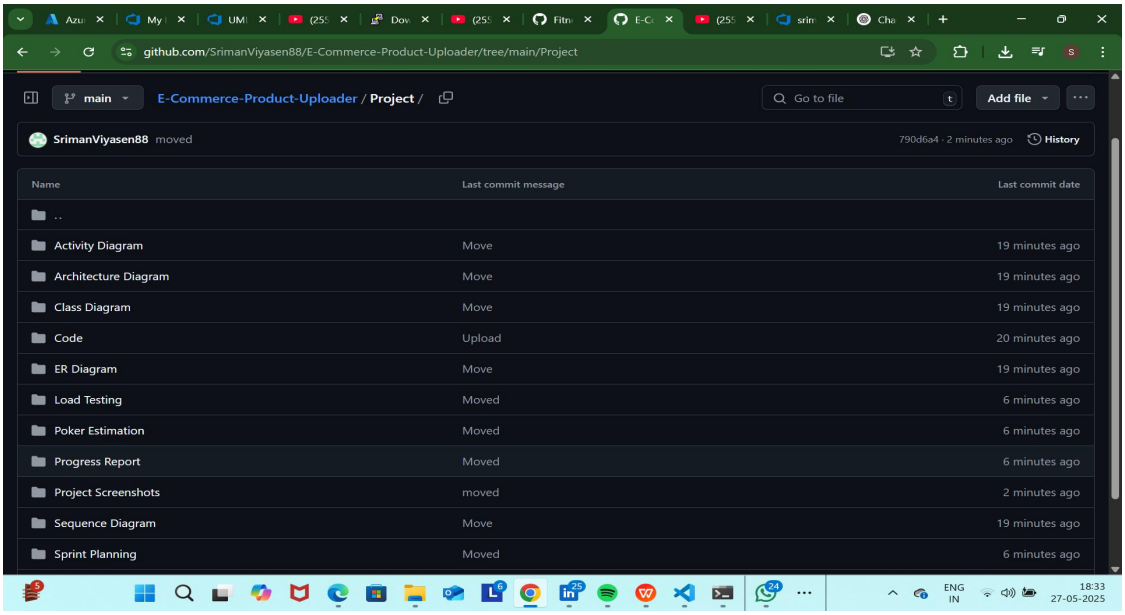
Successfully created the Azure Load Testing resource and executed a load test to assess the performance of the specified endpoint.

EXP NO: 10	GITHUB: PROJECT STRUCTURE & NAMING CONVENTIONS

Aim:

To provide a clear and organized view of the project's folder structure and file naming conventions, helping contributors and users easily understand, navigate, and extend the Music Playlist Batch Creator project.

GitHub Project Structure



Result:

The GitHub repository clearly displays the organized project structure and consistent naming conventions, making it easy for users and contributors to understand and navigate the code base.