



**RAJALAKSHMI  
ENGINEERING COLLEGE**

An AUTONOMOUS Institution  
Affiliated to ANNA UNIVERSITY, Chennai

**DEPARTMENT OF INFORMATION TECHNOLOGY**

**LAB MANUAL**

**CS23432 – Software Construction**

**(REGULATION 2023)**

**RAJALAKSHMI ENGINEERING COLLEGE**

**Thandalam, Chennai-602015**

Name: Gowtham PL

Register No: 231001049

Year / Branch / Section: 2<sup>nd</sup> /IT/ FA

Semester: IV

Academic Year: 2024 - 2025

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CS23432

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1.	22/01/25	Azure Devops Environment Setup.
2.	07/02/25	Azure Devops Project Setup and User Story Management.
3.	14/02/25	Setting Up Epics, Features, And User Stories for Project Planning.
4.	20/03/25	Sprint Planning.
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6.	04/04/25	Designing Class and Sequence Diagrams for Project Architecture.
7.	16/04/25	Designing Architectural and ER Diagrams for Project Structure.
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9.	25/04/25	Load Testing and Pipelines.
10.	02/05/25	GitHub: Project Structure & Naming Conventions.

**EXP NO: 1**

## AZURE DEVOPS ENVIRONMENT SETUP

**Aim:**

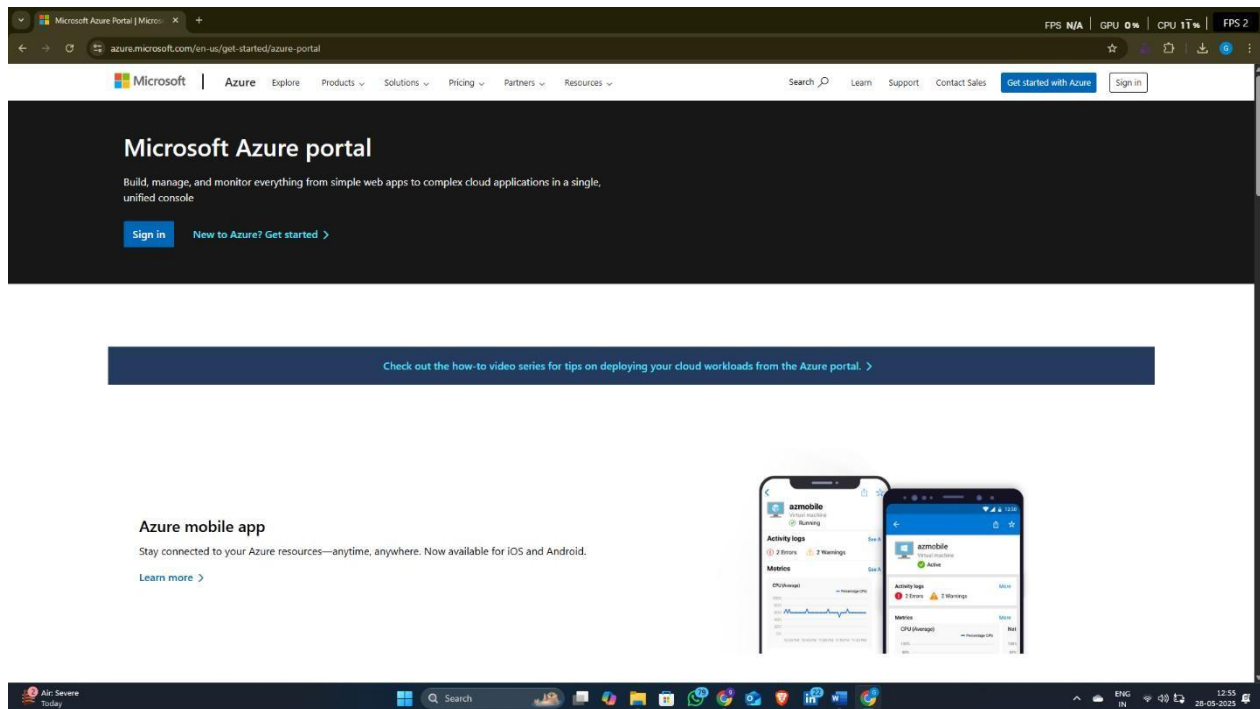
To set up and access the Azure DevOps environment by creating an organization through the Azure portal.

**INSTALLATION**

1. Open your web browser and go to the Azure website: <https://azure.microsoft.com/en-us/getstarted/azureportal>.

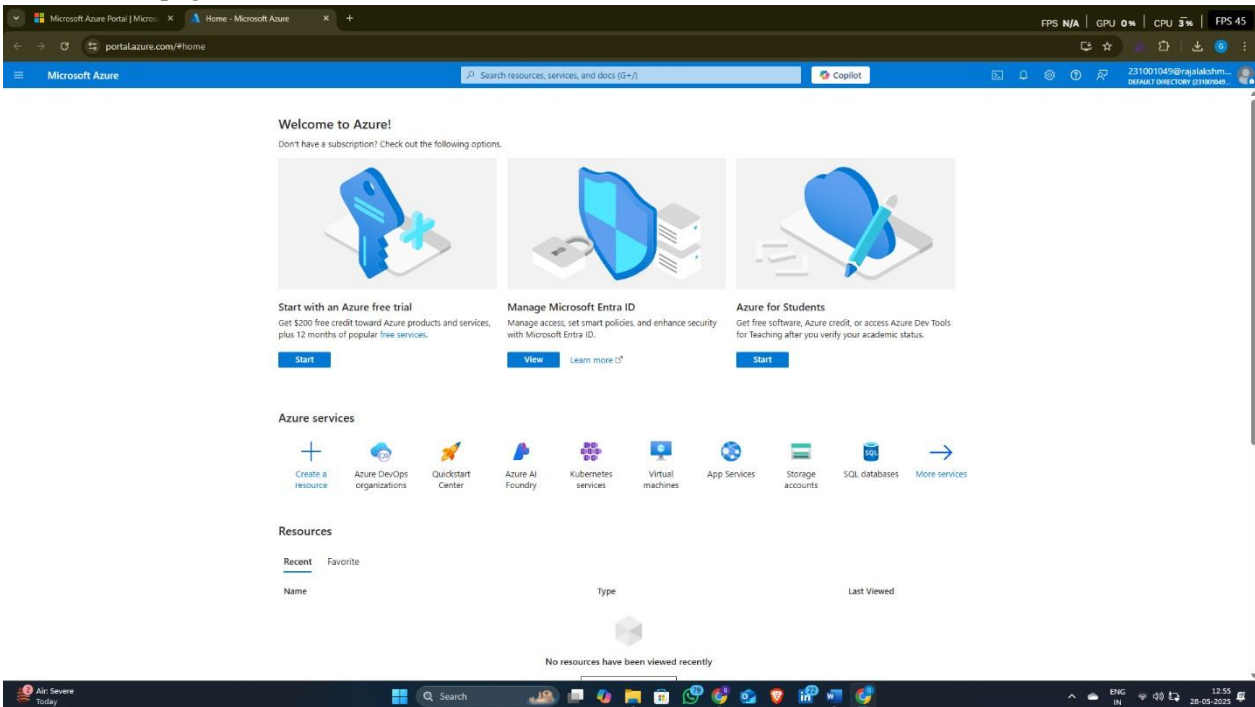
Sign in using your Microsoft account credentials.

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

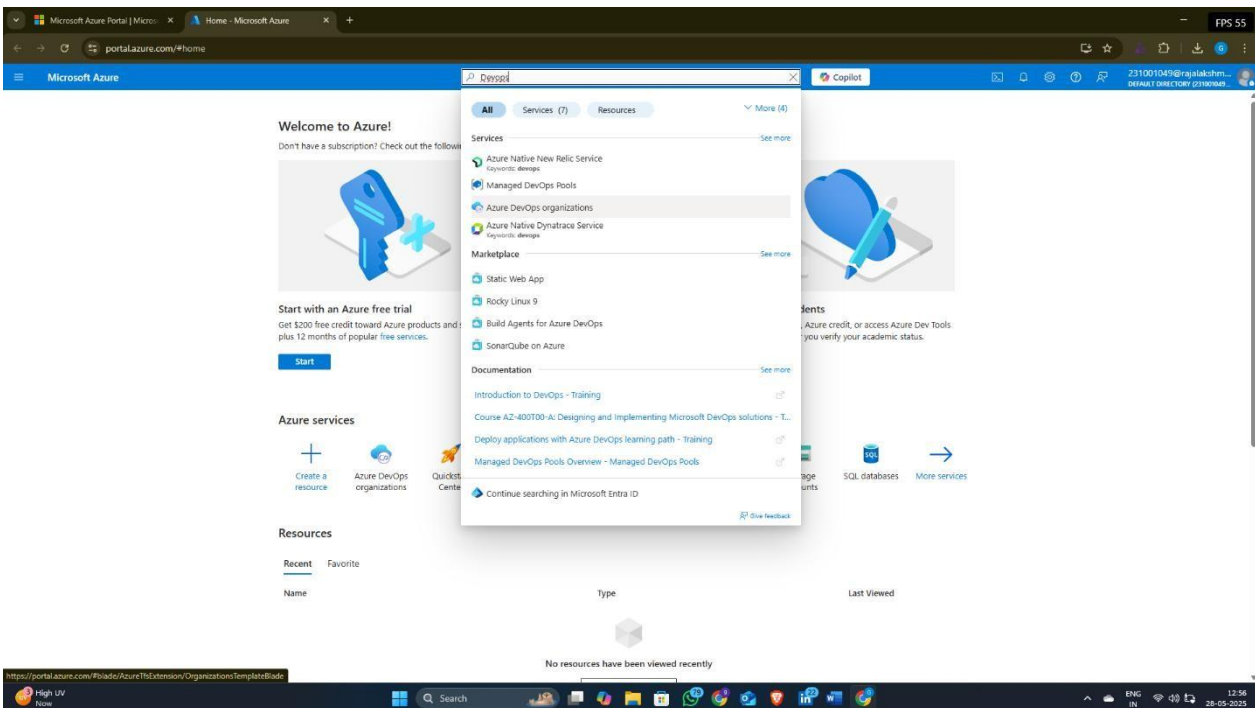




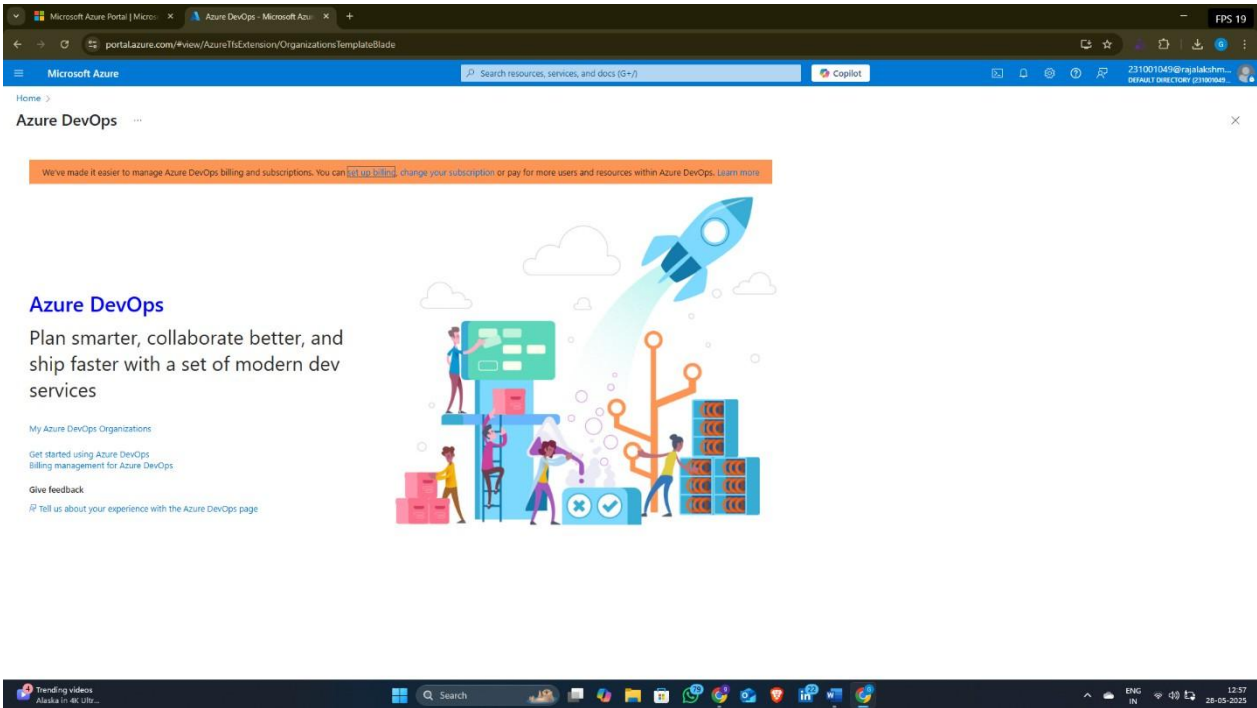
## 2. Azure home page



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:**

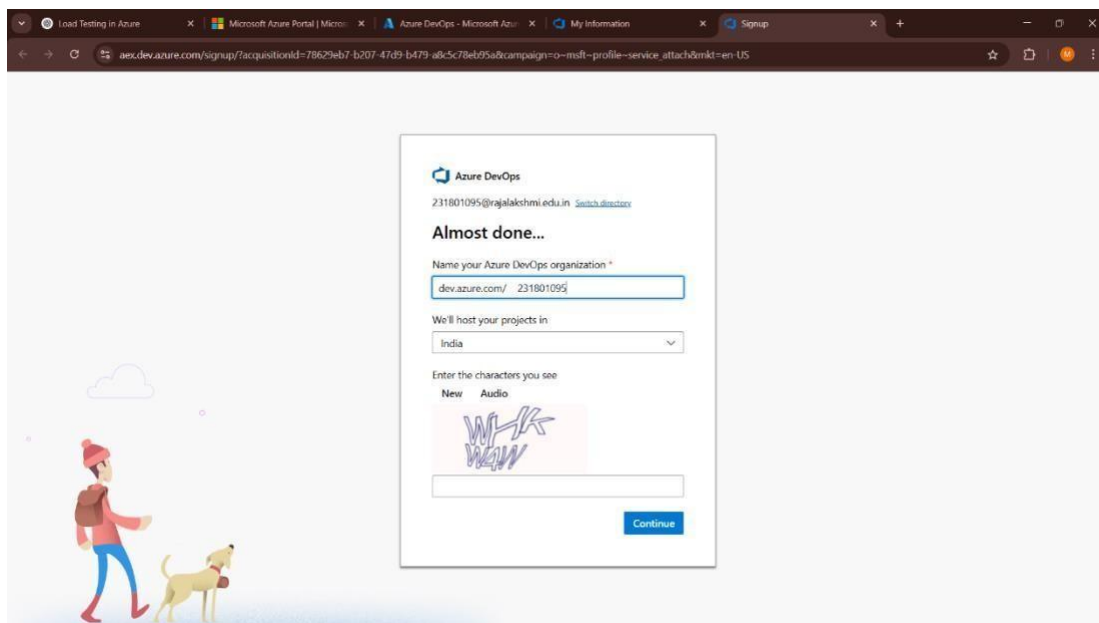
Successfully accessed the Azure DevOps environment and created a new organization through the Azure portal.

EXP NO: 2	<b>AZURE DEVOPS PROJECT SETUP AND USER STORY MANAGEMENT</b>
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**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**

- 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.
- On the organization's **Home page**, click on the **New Project** button.
- 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).
- Once you've filled out the details, click **Create** to set up your first project.

## Create new project



Project name \*

E-Commerce Website

Description

Visibility



Public

Anyone on the internet can view the project. Certain features like TFVC are not supported.



Private

Only people you give access to will be able to view this project.



Public projects are disabled for your organization. You can turn on public visibility with [organization policies](#).

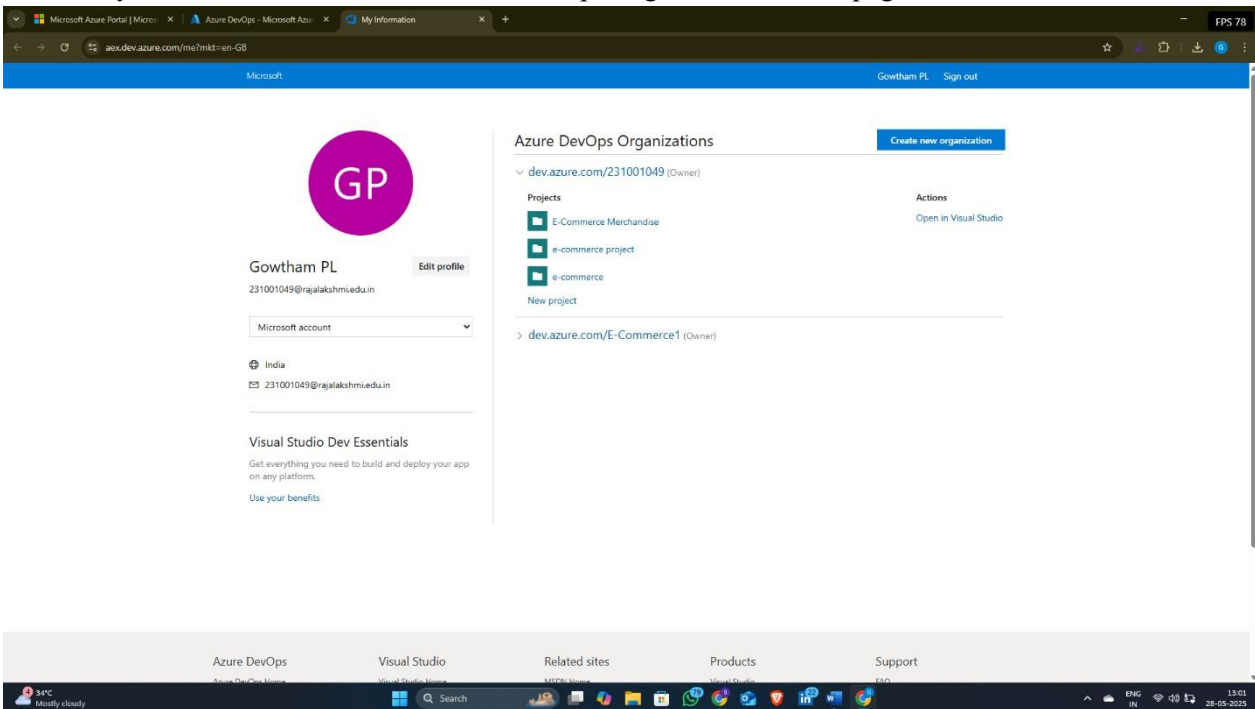
▼ Advanced

Cancel

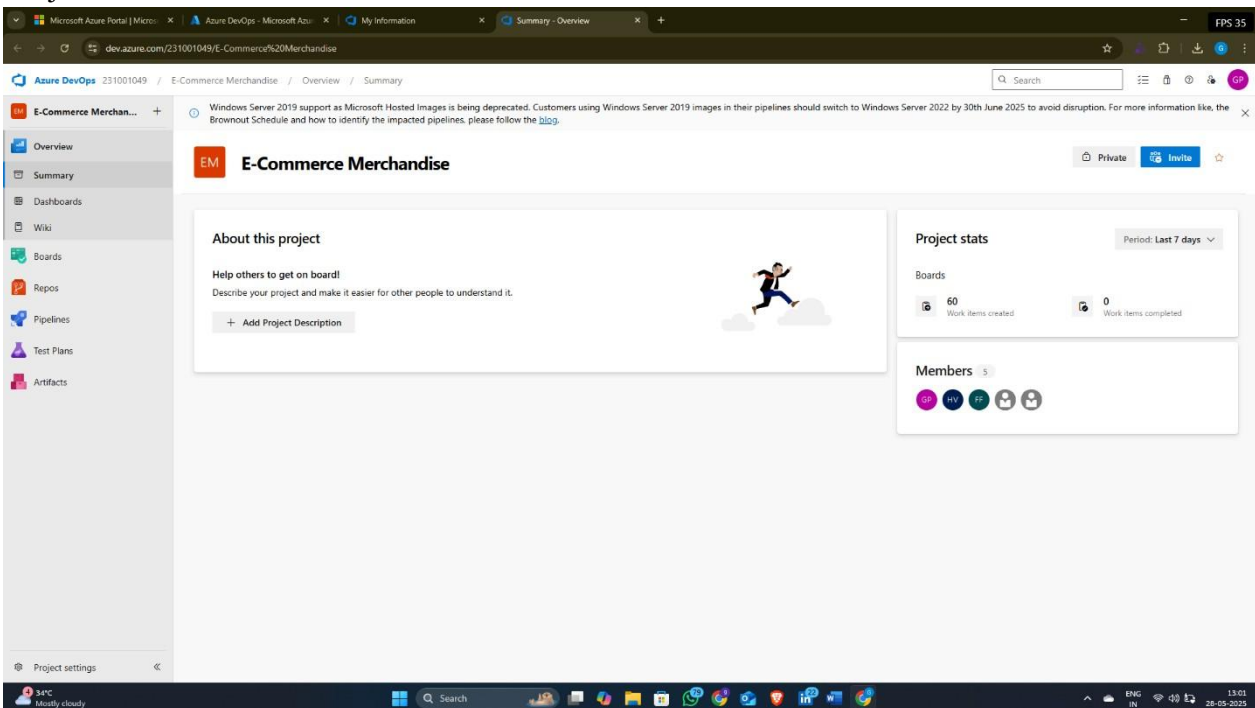
Create



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.



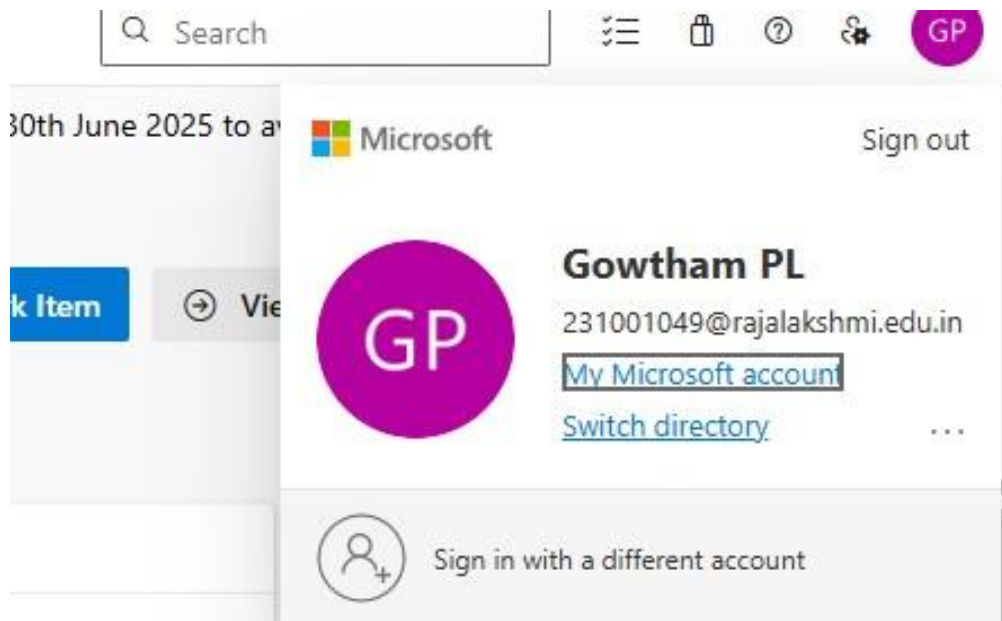
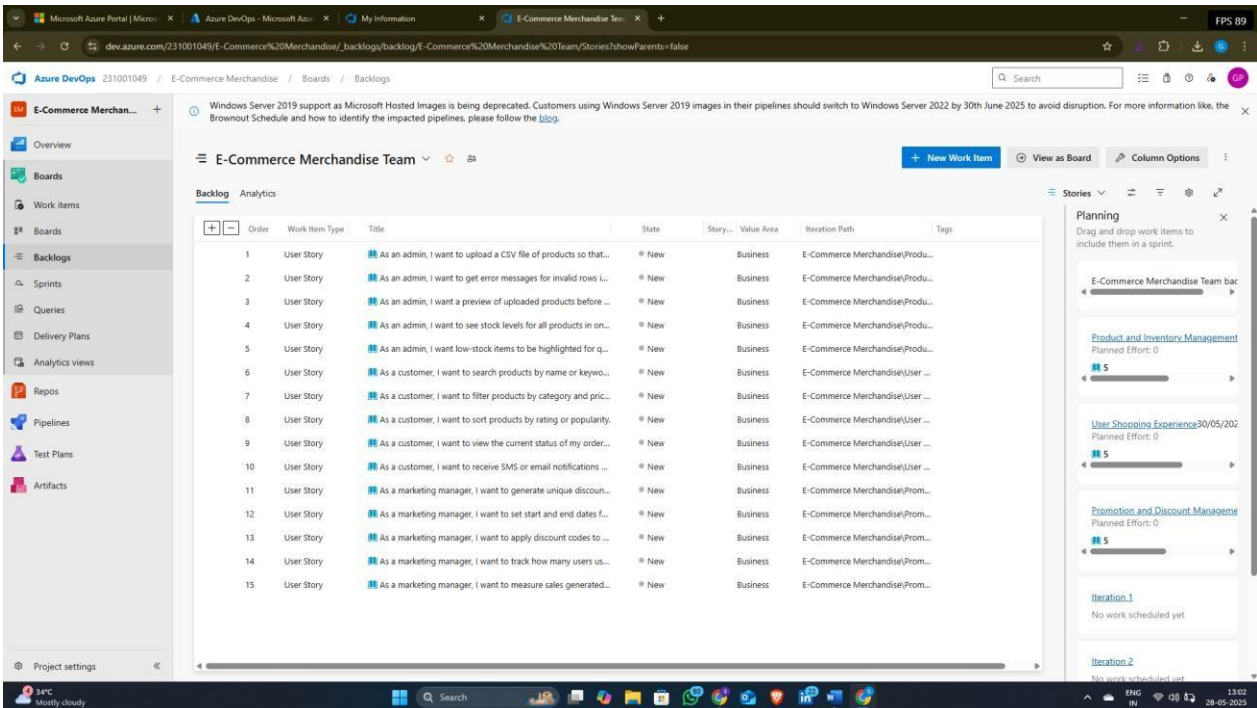
#### 4. Project dashboard



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.

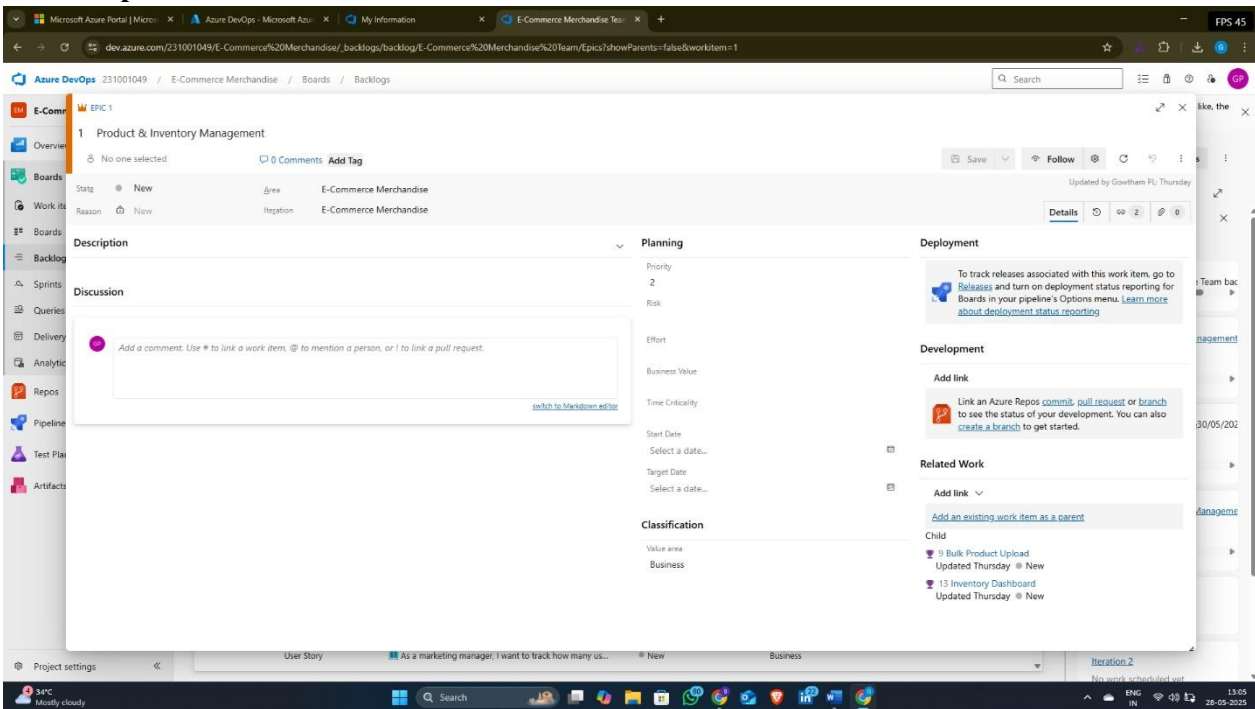
### Create Epic, Features, User Stories, Task

The screenshot displays the Azure DevOps web interface for a project named 'E-Commerce Merchandise Team'. The left sidebar shows navigation options like Overview, Boards, Work Items, Backlogs, Sprints, Queries, Delivery Plans, Analytics views, Repos, Pipelines, Test Plans, and Artifacts. The main area shows the 'Backlog' view with a table of work items. The table has columns for Order, Work Item Type, Title, State, Effort, Business Value, and Tags. The work items are grouped into three main sections:

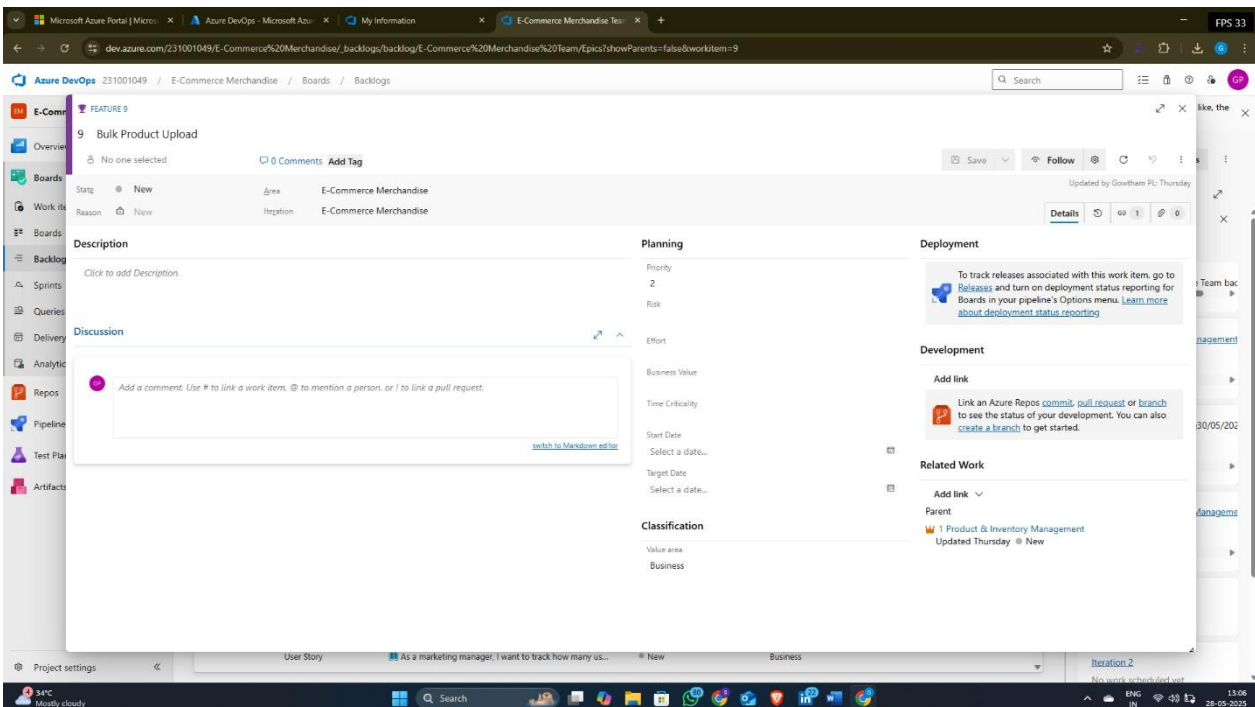
- Section 1:** Epic 'Product & Inventory Management' (New, Business). Features include 'Bulk Product Upload' (New, Business) and 'Inventory Dashboard' (New, Business).
- Section 2:** Epic 'Seamless Shopping Experience' (New, Business). Features include 'Product Search and Filtering' (New, Business). User stories include 'As a customer, I want to search products by name or k...' (New, Business), 'As a customer, I want to filter products by category an...' (New, Business), and 'As a customer, I want to sort products by rating or po...' (New, Business).
- Section 3:** Epic 'Promotions & Discounts Management' (New, Business). Features include 'Discount Code Generator' (New, Business), 'Order Tracking System' (New, Business), and 'Campaign Performance Tracking' (New, Business). User stories include 'As a marketing manager, I want to generate unique d...' (New, Business), 'As a marketing manager, I want to set start and end d...' (New, Business), 'As a marketing manager, I want to apply discount cod...' (New, Business), and 'As a marketing manager, I want to track how many us...' (New, Business).

A right-hand pane titled 'Planning' is open, showing a drag-and-drop interface for planning work items into sprints. It lists the selected epic and its features, along with their planned effort (0). The bottom of the screen shows a Windows taskbar with the date 28-05-2023 and time 13:05.

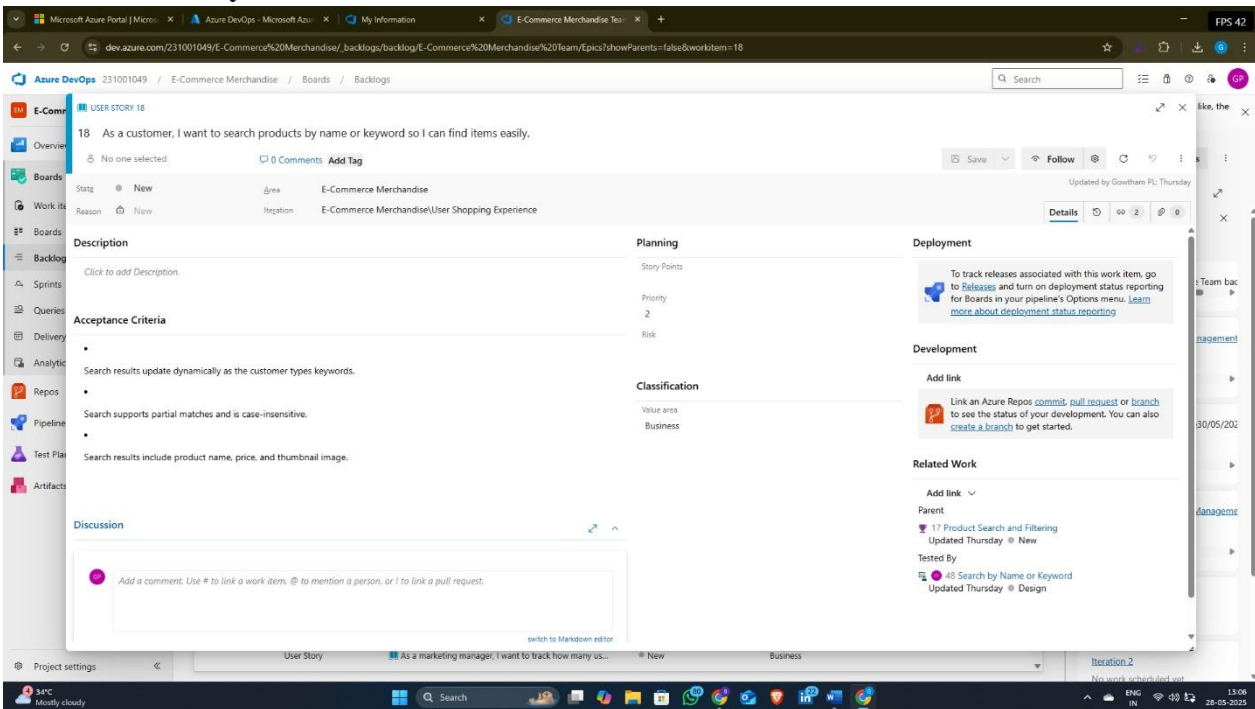
## 1.Fill in Epics



## 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.

<b>EXP NO: 4</b>	<b>SPRINT PLANNING</b>
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## Aim:

To assign user story to specific sprint for the Music Playlist Batch Creator Project.

## Sprint Planning Sprint 1

The screenshot shows the Azure DevOps Sprints board for the 'E-Commerce Merchandise Team'. The board is titled 'Product and Inventory Management' and is in the 'Sprints' view. It displays four user stories in the 'New' column, all assigned to 'Unassigned'.

- 3 As an admin, I want to upload a CSV file of products so that I can add multiple products quickly.
- 4 As an admin, I want to get error messages for invalid rows in the file so that I can fix issues easily.
- 5 As an admin, I want a preview of uploaded products before confirming the import.
- 7 As an admin, I want to see stock levels for all products in one view.

The board has columns for 'New', 'Active', 'Resolved', and 'Closed'. The sprint duration is '22 May - 29 May' with '2 work days remaining'. The FPS is 112.

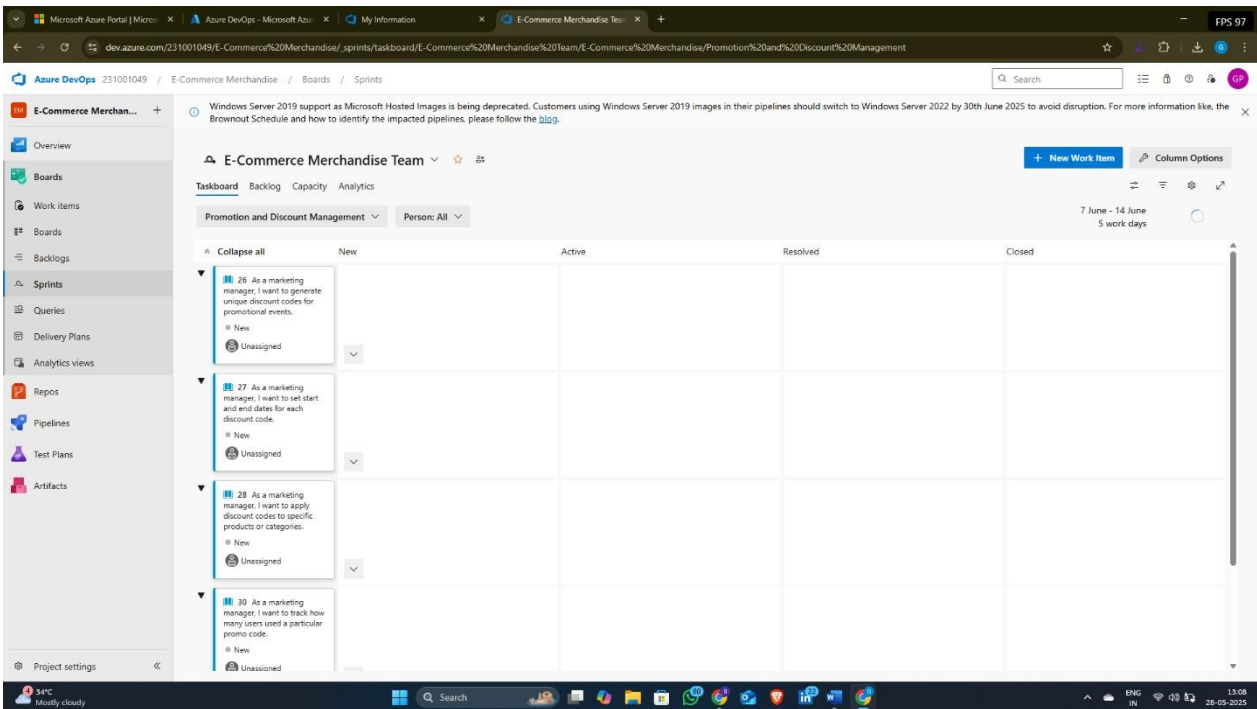
## Sprint 2

The screenshot shows the Azure DevOps Sprints board for the 'E-Commerce Merchandise Team'. The board is titled 'User Shopping Experience' and is in the 'Sprints' view. It displays four user stories in the 'New' column, all assigned to 'Unassigned'.

- 18 As a customer, I want to search products by name or keyword so I can find items easily.
- 19 As a customer, I want to filter products by category and price so I can narrow my choices.
- 20 As a customer, I want to sort products by rating or popularity.
- 22 As a customer, I want to view the current status of my order (e.g. shipped, delivered).

The board has columns for 'New', 'Active', 'Resolved', and 'Closed'. The sprint duration is '30 May - 6 June' with '6 work days' remaining. The FPS is 96.

## Sprint 3



### Result:

The Sprints are created for the Music Playlist Batch Creator Project.

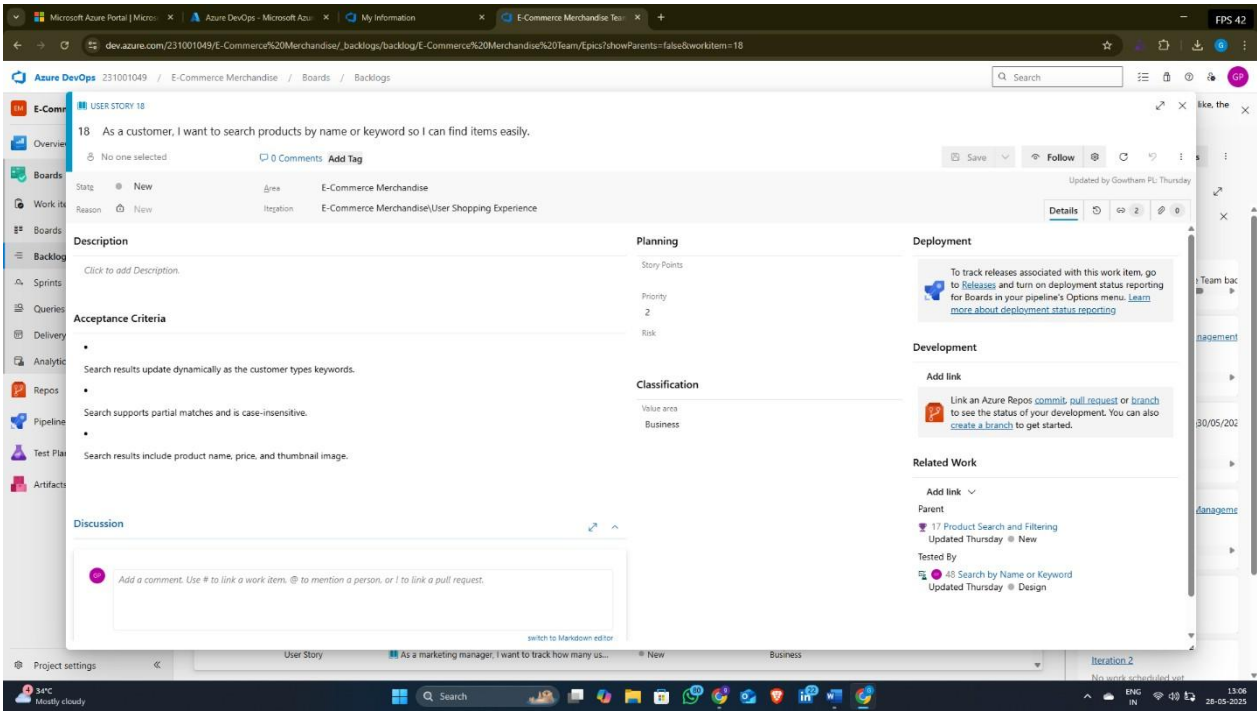
EXP NO: 5	POKER ESTIMATION
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### Aim:

Create Poker Estimation for the user stories - Music Playlist Batch Creator Project.

### Poker Estimation





### Result:

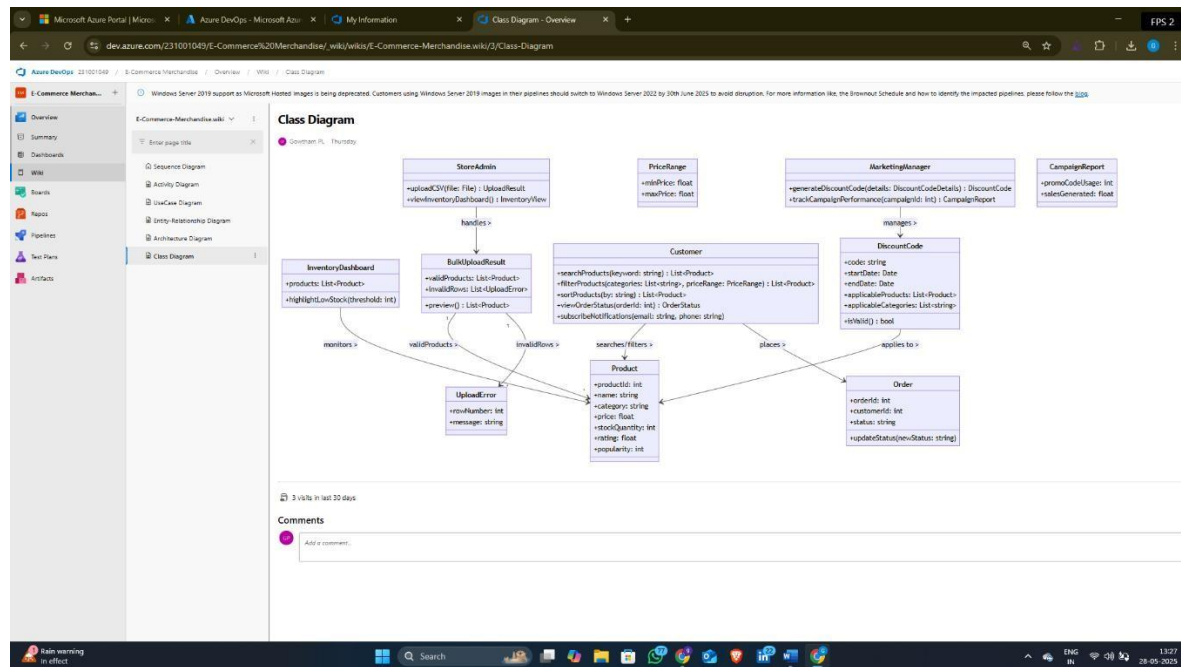
The Estimation/Story Points is created for the project using Poker Estimation.

EXP NO: 6	<h2 style="text-align: center;">DESIGNING CLASS AND SEQUENCE DIAGRAMS FOR PROJECT ARCHITECTURE</h2>
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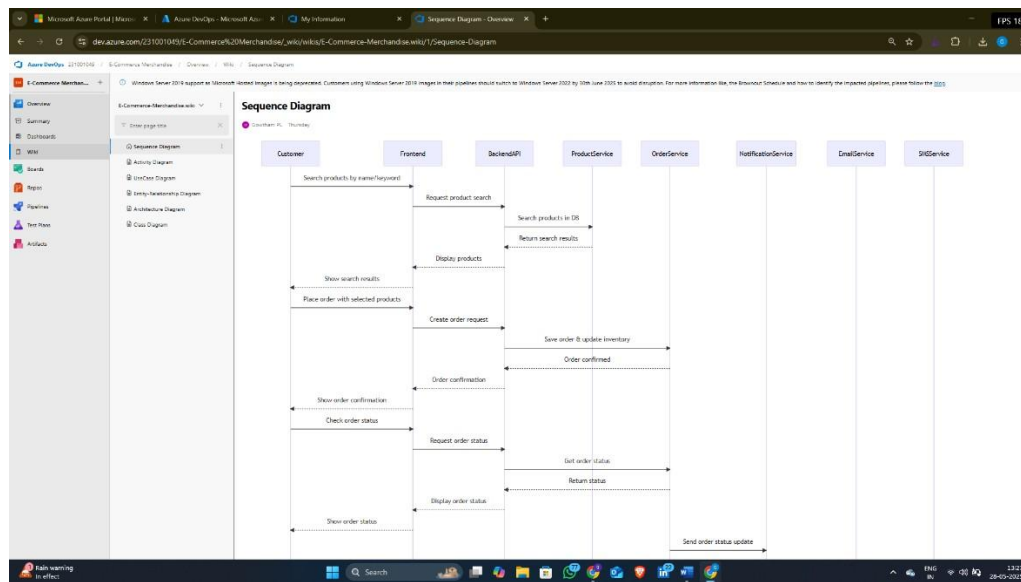
### Aim:

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 Music Playlist Batch Creator.

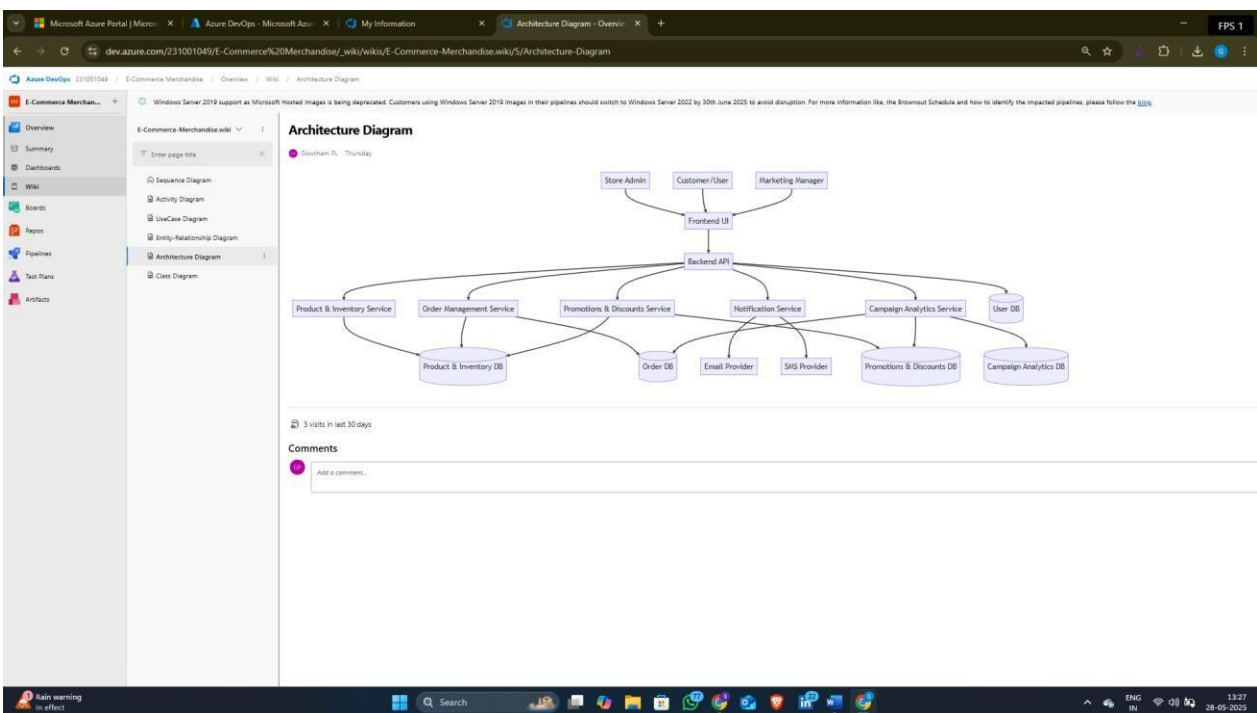
EXP NO: 7

## DESIGNING ARCHITECTURAL AND ER DIAGRAMS FOR PROJECT STRUCTURE

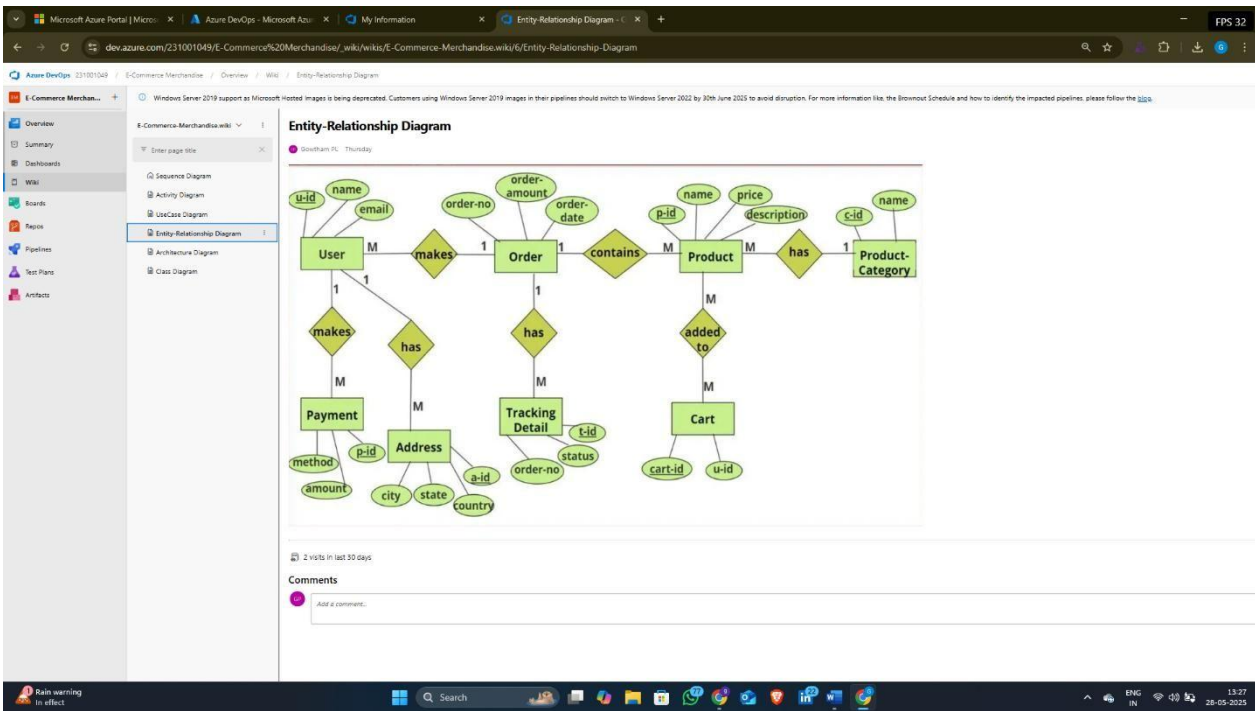
**Aim:**

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 Music Playlist Batch Creator

**EXP NO: 8**

## **TESTING – TEST PLANS AND TEST CASES**

**Aim:**

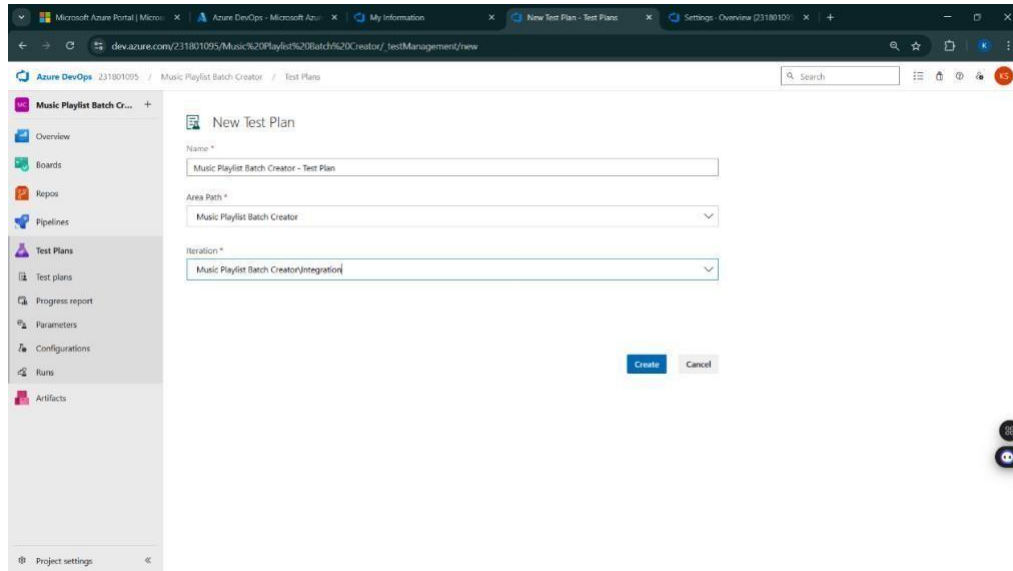
Test Plans and Test Case and write two test cases for at least five user stories showcasing the happy path and error scenarios in azure DevOps platform.

**Test Planning and Test Case Test Case Design Procedure**

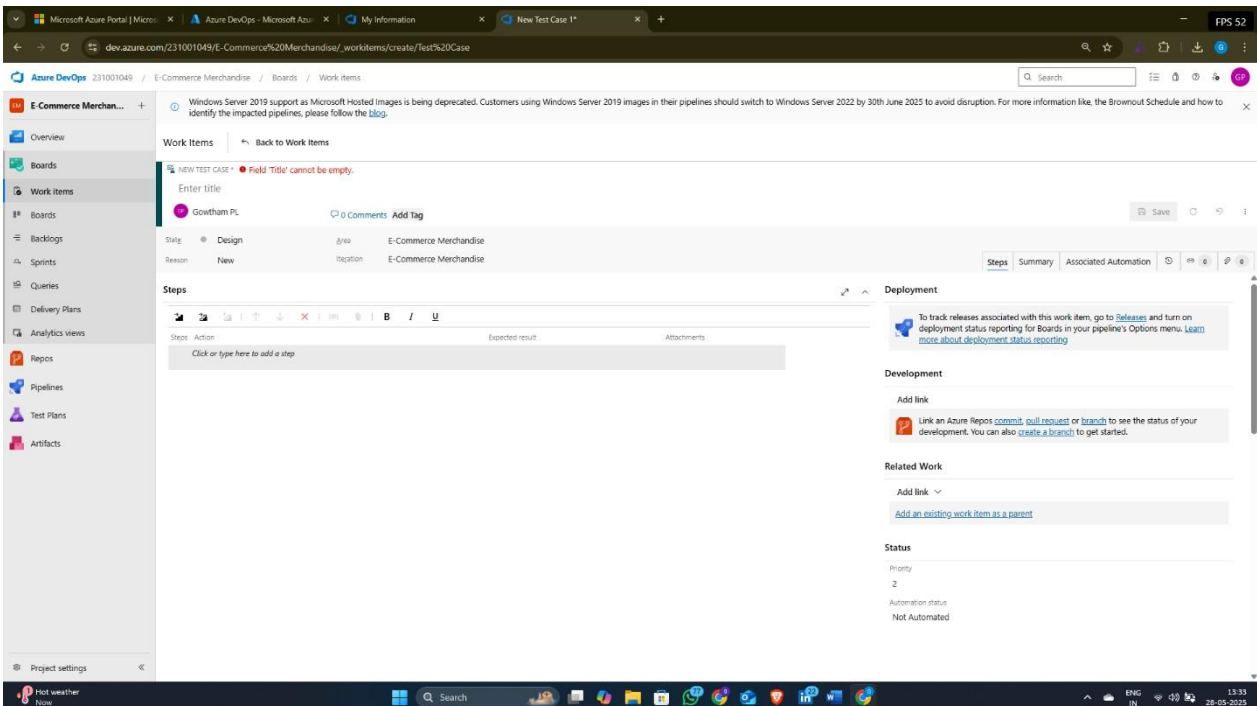
- 1. Understand Core Features of the Application** ○ User Signup & Login ○ Viewing and Managing Playlists ○ Fetching Real-time Metadata ○ Editing playlists (rename, reorder, record)
  - Creating smart audio playlists based on categories (mood, genre, artist, etc.)
- 2. Define User Interactions** ○ Each test case simulates a real user behaviour (e.g., logging in, renaming a playlist, adding a song).
- 3. Design Happy Path Test Cases** ○ Focused on validating that all features function as expected under normal conditions.
  - Example: User logs in successfully, adds item to playlist, or creates a category-based playlist.
- 4. Design Error Path Test Cases** ○ Simulate negative or unexpected scenarios to test robustness and error handling.
  - Example: Login fails with invalid credentials, save fails when offline, no recommendations found.
- 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 – Successful Login, TC10 – Save Playlist Fails).
  - Helps in quick identification and linking to user stories or features.
- 7. Separate Test Suites** ○ Grouped test cases based on functionality (e.g., Login, Playlist Editing, Recommendation System).

- o Improves organization and test execution flow in Azure DevOps.
- 8. **Prioritize and Review**
  - o Critical user actions are marked high-priority.
  - o 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.

Music Playlist Batch Creator – Test Plans

#### USER STORIES

- As a marketing manager, I want to generate unique discount codes for promotional events.
- As a customer, I want to filter products by category and price so I can narrow my choices.
- As a customer, I want to sort products by rating or popularity.
- As an admin, I want low-stock items to be highlighted for quicker restocking.

#### Test Suites

##### Test Suite: TS01 – Bulk Product Upload (Admin)

**Feature:** Bulk Product Upload

**User Story 1:** Upload CSV file of products

**User Story 2:** Show errors for invalid rows **User**

**Story 3:** Preview before confirming import

##### TC01 – Successful Bulk Upload

- Action:
  - Go to Bulk Upload page
  - Upload a valid CSV file with product details ○  
Click “Upload”
- Expected Result:
  - Preview of valid rows is shown ○ No  
error messages appear ○ “Confirm  
Import” button is enabled
- Type: Happy Path

##### TC02 – Upload With Invalid Rows

- Action:
  - Upload a CSV file with missing product names/prices
- Expected Result:
  - Valid rows previewed ○ Invalid rows are highlighted
  - Error message: “Row 2: Product Name is required”
- Type: Error Path



### **TC03 – Confirm and Import Products**

- Action:
  - After previewing valid data, click “Confirm Import”
- Expected Result:
  - Products are saved in the database ◦ Confirmation message is shown
- Type: Happy Path

### **Test Suite: TS02 – Inventory Dashboard (Admin) Feature: Inventory Dashboard**

**User Story 1:** View stock levels User

**Story 2:** Highlight low-stock items

### **TC04 – View All Inventory**

- Action:
  - Go to Inventory Dashboard
- Expected Result:
  - List of all products with current stock quantity
- Type: Happy Path

### **TC05 – Highlight Low-Stock Items**

- Action:
  - Set a product stock to below threshold (e.g., < 5) ◦ Refresh dashboard
- Expected Result:
  - Item row is highlighted (e.g., red) ◦ Alert icon displayed
- Type: Happy Path

### **Test Suite: TS03 – Product Search & Filtering (Customer) Feature: Product Search & Filtering**

**User Story 1:** Search by name/keyword

**User Story 2:** Filter by category/price

**User Story 3:** Sort by rating/popularity

---

### **TC06 – Search by Name**

- Action:
  - Enter “T-shirt” in search bar and press Enter
- Expected Result: ◦ All matching T-shirt products displayed
- Type: Happy Path

#### **TC07 – Filter by Category and Price**

- Action:
  - Select “Hoodies” category ○ Set price range: ₹500 – ₹1500
- Expected Result:
  - Products filtered accurately
- Type: Happy Path

#### **TC08 – Sort by Popularity**

- Action: ○ Click on “Sort by Popularity”
- Expected Result:
  - Products rearranged by most purchased or liked
- Type: Happy Path

#### **Test Suite: TS04 – Order Tracking (Customer) Feature: Order Tracking**

**User Story 1:** View order status User

**Story 2:** Get SMS/email updates

#### **TC09 – View Order Status**

- Action:
  - Go to “My Orders” ○ Click on an order
- Expected Result:
  - Status shown (e.g., “Shipped”, “Delivered”)
- Type: Happy Path

#### **TC10 – Receive Notification on Status Change**

- Action: ○ Order is marked “Out for Delivery” by system
- Expected Result:
  - Email and SMS sent to customer
- Type: Happy Path

#### **Test Suite: TS05 – Discount Code Management (Marketing) Feature: Discount Code Generator**

**User Story 1:** Generate discount codes

**User Story 2:** Set validity

**User Story 3:** Apply to categories/products

#### **TC11 – Generate Discount Code**

- Action:
  - Go to “Promo Tools”
  - Click “Generate Code”, set value (e.g., 15% OFF)

- Expected Result:
  - Unique code created and listed
- Type: Happy Path

#### **TC12 – Apply Code to Product**

- Action:
  - Choose products or categories and apply code
- Expected Result:
  - Code applied successfully and shown in frontend offers
- Type: Happy Path

#### **Test Suite: TS06 – Campaign Tracking (Marketing) Feature: Campaign Performance Tracking**

**User Story 1:** Track promo code usage **User**

**Story 2:** Track sales from campaigns

#### **TC13 – Track Promo Code Usage**

- Action:
  - View analytics for a promo code
- Expected Result:
  - Number of redemptions and users shown
- Type: Happy Path

#### **TC14 – Track Campaign Sales**

- Action:
  - Open campaign dashboard
- Expected Result:
  - Sales, revenue, and engagement metrics shown
- Type: Happy Path

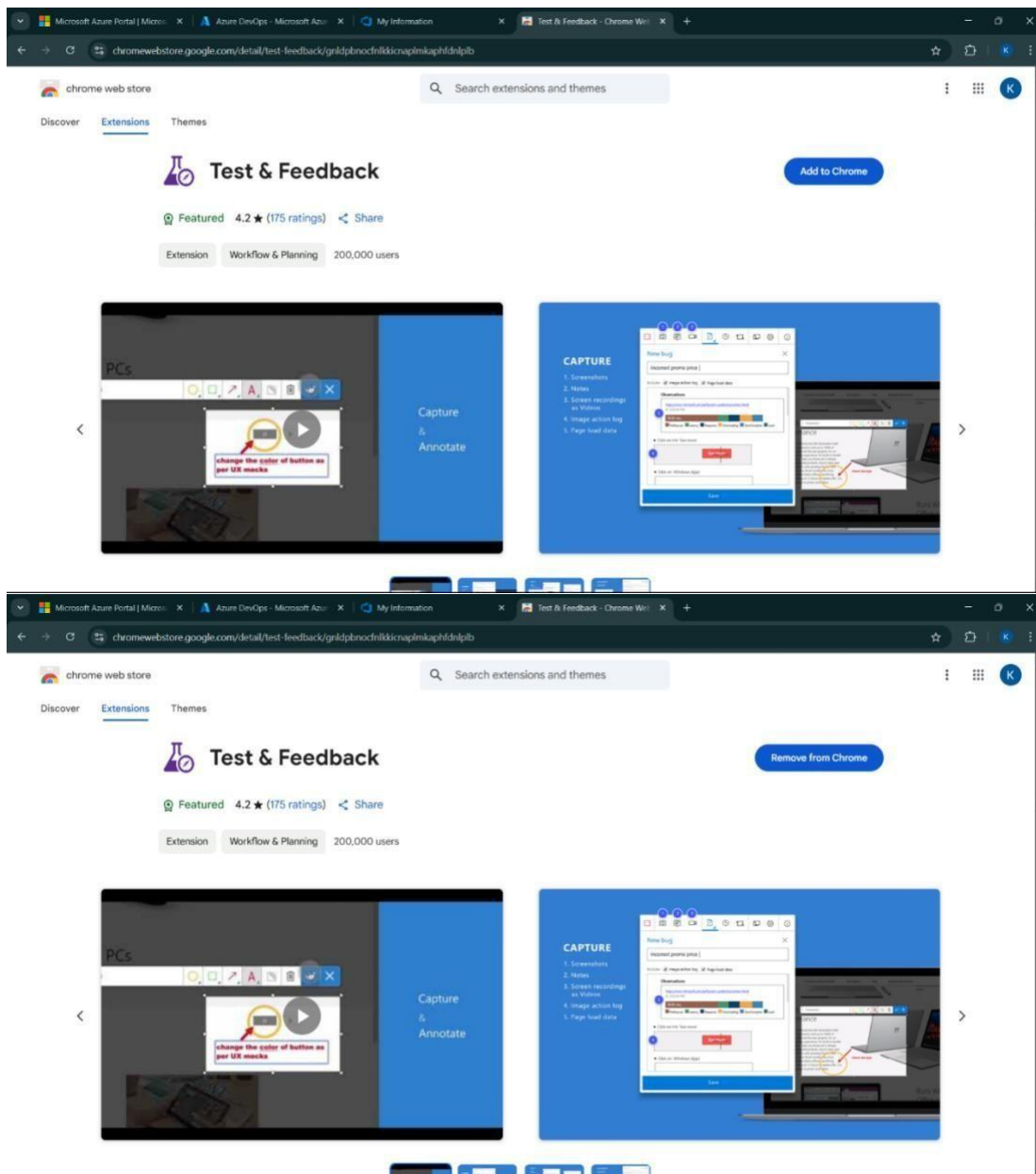
## Test Cases

The image displays two screenshots of the Azure DevOps web interface, specifically the 'Work Items' section for a project named 'E-Commerce Merchandise'.

**Top Screenshot:** Shows a work item titled 'Highlight Low Stock Items' (ID: 43). The 'Steps' section lists two actions: 'Set a product stock to below threshold (eg. < 5)' and 'Refresh dashboard'. The 'Deployment' section on the right indicates that the work item is associated with a release and provides links to track releases and deployment status reporting.

**Bottom Screenshot:** Shows a work item titled 'Upload With Invalid Rows' (ID: 43). The 'Steps' section lists three actions: 'Upload a CSV file with missing product names/prices', 'Invalid rows are highlighted', and 'Error message: Row 2: Product Name is required'. The 'Deployment' section on the right provides links to track releases and deployment status reporting.

## 4.Installation of test



Test and feedback

Showing it as an extension

Microsoft Azure Portal | Micro... x Azure DevOps - Microsoft Az... x My Information x Test Case 43 Upload With Invali... x Redo Shortcut Help x +

dev.azure.com/231001049/E-Commerce%20Merchandise/\_workitems/edit/43/

Azure DevOps 231001049 / E-Commerce Merchandise / Boards / Work items

E Commerce Merchan... +

Overview

Boards

Work Items

Boards

Backlogs

Sprints

Queries

Delivery Plans

Analytics views

Repos

Pipelines

Test Plans

Artifacts

Project settings

Recently updated

Back to Work Items

TEST CASE 43

43 Upload With Invalid Rows

Gowtham PL

0 Comments

Error path

State: Design

Area: E-Commerce Merchandise

Reason: New

Iteration: E-Commerce Merchandise

1. Upload a CSV file with missing product names/prices

Valid rows previewed

2.

Invalid rows are highlighted

3.

Error message: "Row 2: Product Name is required"

Click or type here to add a step

Parameter values

Discussion

Extensions

Full access

These extensions can see and change information on this site.

McAfee WebAdvisor

Test & Feedback

No access needed

These extensions don't need to see and change information on this site.

Material You New tab

Manage extensions

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

Add link

Add an existing work item as a parent

Status

Priority

2

Automation status

Not Automated

Rain warning in effect

Search

ENG IN

13:49

26-05-2023

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## 5. Running the test cases

Microsoft Azure Portal | Microsoft Azure DevOps | My Information | Test Plan 39 E-Commerce Mer... | Redo Shortcut Help | FPS 44

dev.azure.com/231001049/E-Commerce%20Merchandise/\_testPlans/execute?planId=39&suiteId=57

**Azure DevOps** 231001049 / E-Commerce Merchandise / Test Plans / E-Commerce Merchandise T...

**E-Commerce Merch...** May 22 - May 29 **Current** 100% run, 75% passed. [View report](#)

**Test Suites** Filter suites by name

- E-Commerce Merchandise Team\_Stories, Iter...
- 31: As a marketing manager, I want to...
- 30: As a marketing manager, I want to...
- 28: As a marketing manager, I want to...
- 26: As a marketing manager, I want to...
- 23: As a customer, I want to receive...
- 22: As a customer, I want to view the...
- 20: As a customer, I want to sort pro...
- 19: As a customer, I want to filter pr...
- 18: As a customer, I want to search pr...
- 8: As an admin, I want low stock ite...
- 7: As an admin, I want to see stock l...

**23: As a customer, I want to receive SMS or email notifications when my order status changes. (ID: 57)**

**Execute** **Chart**

**Test Points (1 item)**

Title	Outcome	Order	Test Case Id	Configuration	Tester
Receive Notification on Status Change	Passed	1	56	Windows 10	Gowtham PL

Run for web application

- View execution history
- Mark Outcome
- Run
- Reset test to active
- Edit test case
- View test result

Run for web application

Run for desktop application

Run with options

Project settings

Run warning in effect

dev.azure.com/231001049/E-Commerce... | Test Plan 39 E-Commerce Mer... | Redo Shortcut Help | FPS 24

dev.azure.com/231001049/E-Commerce%20Merchandise/\_testPlans/execute?planId=39&suiteId=57

**Azure DevOps** 231001049 / E-Commerce Merchandise / Test Plans / E-Commerce Merchandise T...

**E-Commerce Merch...** May 22 - May 29 **Current** 100% run, 75% passed. [View report](#)

**Test Suites** Filter suites by name

- E-Commerce Merchandise Team\_Stories, Iter...
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- 8: As an admin, I want low stock ite...
- 7: As an admin, I want to see stock l...

**23: As a customer, I want to receive SMS or email notifications when my order status changes. (ID: 57)**

**Execute** **Chart**

**Test Points (1 item)**

Title	Outcome	Order	Test Case Id	Configuration	Tester
Receive Notification on Status Change	Passed	1	56	Windows 10	Gowtham PL

Run for web application

Run for desktop application

Run with options

Project settings

Run warning in effect

56: Receive Notification on Status Change

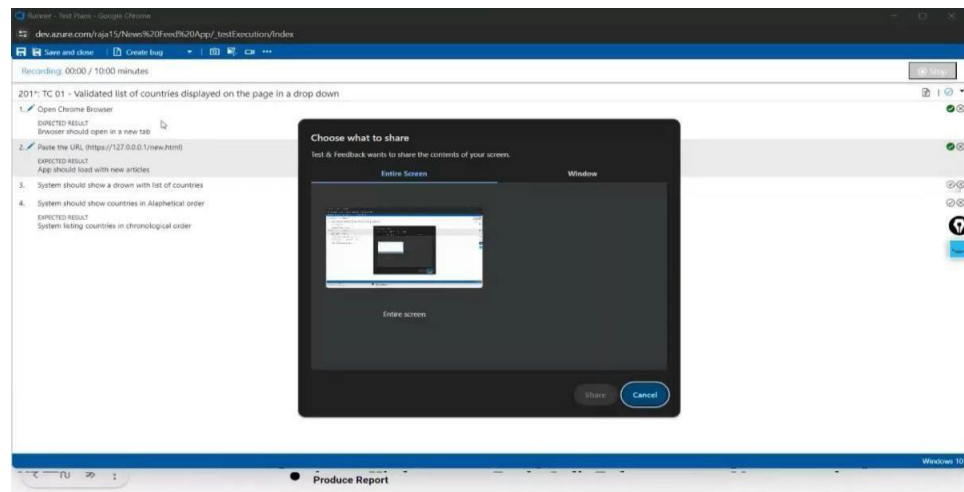
1. Order is marked "Out for Delivery" by system

EXPECTED RESULT

Email and SMS sent to customer

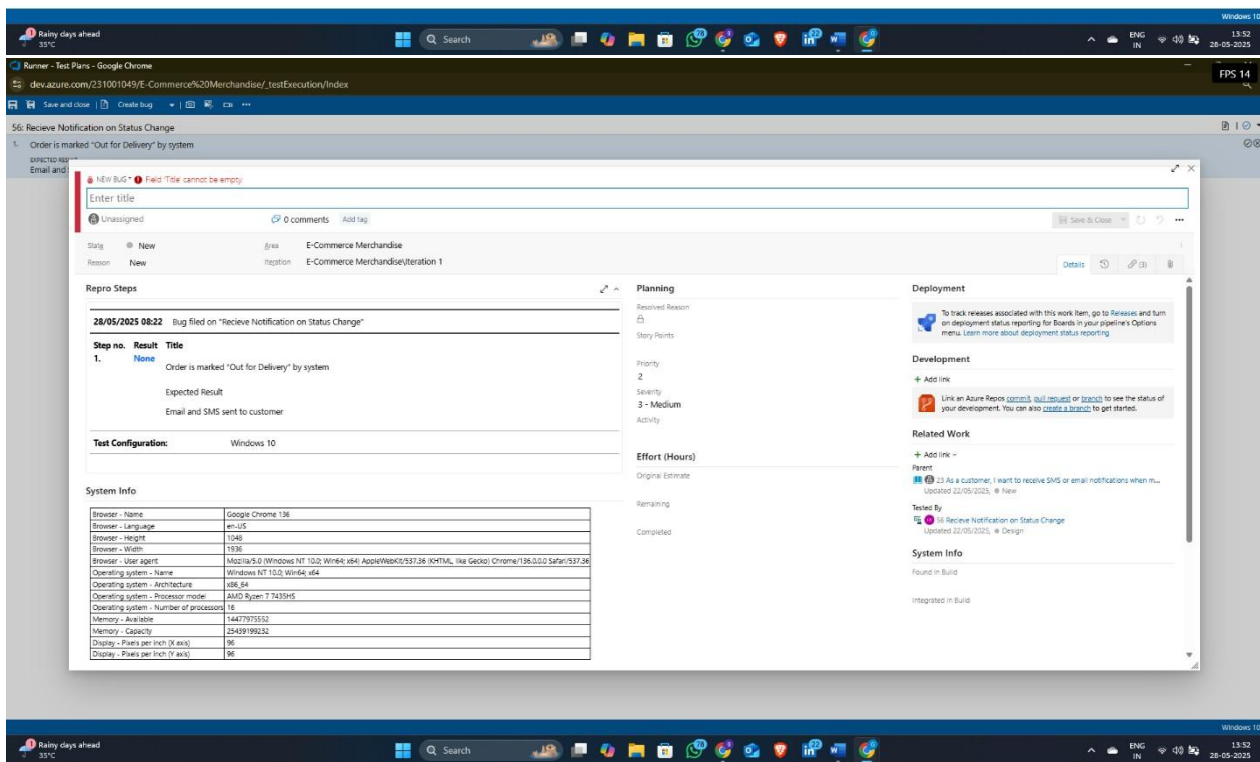
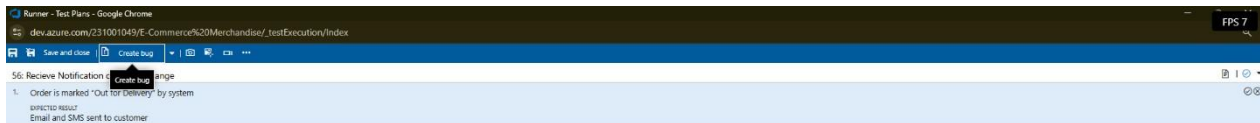


## 6. Recording the test case



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## 7. Creating the bug



## 8. Test case results

The screenshot shows the 'Recent test runs' section in Azure DevOps. A table lists 19 runs with columns for State, Run ID, Title, Completed Date, Build Number, Failed, and Pass Rate. The runs are sorted by completion date, with the most recent at the top.

State	Run ID	Title	Completed Date	Build Number	Failed	Pass Rate
Completed	21	23 : As a customer, I want to receive SMS or email notifications when my or...	28/05/2025 08:23:49		0	100%
In progress	20	23 : As a customer, I want to receive SMS or email notifications when my or...	28/05/2025 08:21:05		0	0%
Completed	19	7 : As an admin, I want to see stock levels for all products in one view. (Man...	22/05/2025 15:49:50		0	100%
Needs investigat...	18	8 : As an admin, I want low-stock items to be highlighted for quicker restoc...	22/05/2025 15:49:37		1	0%
Completed	17	18 : As a customer, I want to search products by name or keyword so I can f...	22/05/2025 15:49:25		0	100%
Completed	16	19 : As a customer, I want to filter products by category and price so I can n...	22/05/2025 15:49:15		0	100%
Completed	15	20 : As a customer, I want to sort products by rating or popularity. (Manual)	22/05/2025 15:48:43		0	100%
Completed	14	22 : As a customer, I want to view the current status of my order (e.g. ship...	22/05/2025 15:48:34		0	100%
Completed	13	23 : As a customer, I want to receive SMS or email notifications when my or...	22/05/2025 15:48:21		0	100%
Needs investigat...	12	26 : As a marketing manager, I want to generate unique discount codes for ...	22/05/2025 15:48:10		1	0%
Completed	11	28 : As a marketing manager, I want to apply discount codes to specific pro...	22/05/2025 15:47:56		0	100%
Completed	10	30 : As a marketing manager, I want to track how many users used a partic...	22/05/2025 15:47:47		0	100%
Completed	9	31 : As a marketing manager, I want to measure sales generated from each...	22/05/2025 15:47:37		0	100%
Completed	8	3 : As an admin, I want to upload a CSV file of products so that I can add m...	22/05/2025 15:46:41		0	100%
Completed	7	5 : As an admin, I want a preview of uploaded products before confirming t...	22/05/2025 15:46:23		0	100%
Completed	6	11 : As an admin, I want to get error messages for invalid rows in the file so...	22/05/2025 15:45:57		0	100%
Completed	5	11 : As an admin, I want to get error messages for invalid rows in the file so...	22/05/2025 15:45:54		0	100%
Completed	4	7 : As an admin, I want to see stock levels for all products in one view. (Man...	22/05/2025 15:05:06		0	0%
Completed	3	5 : As an admin, I want a preview of uploaded products before confirming t...	22/05/2025 15:03:36		0	0%

## 9. Test report summary

The screenshot shows a bug report in Azure DevOps. The bug is titled '203 BG 01 - Countries Drop down Not Available on the page' and is assigned to 'rajesh prabhu'. The bug is currently in the 'New' state. The repro steps are as follows:

- Step no. 1:** Result: **Passed**. Title: Open Chrome Browser. Expected Result: Browser should open in a new tab.
- Step no. 2:** Result: **Passed**. Title: Paste the URL (https://127.0.0.0:1/new.html). Expected Result: App should load with new articles.
- Step no. 3:** Result: **Failed**. Title: System should show a dropdown with list of countries. Expected Result: Produce Report.

The bug is currently in the 'New' state. The repro steps are as follows:

- Assigning bug to the developer and changing state

The screenshot shows the Azure DevOps web interface. The main view is a bug report titled "92 TB01 - Playlist loading spinner keeps spinning indefinitely on poor network". The bug is assigned to "Karthick S" and has a status of "New". The bug description includes repro steps: 1. Disconnect from internet, Expected Result: Network is offline, Actual Result: Comments: Page Not loading. 2. Navigate to "My Playlists", Expected Result: Error message "Unable to load playlists" is shown. The bug configuration is set to "Windows 10". The interface also shows sections for Planning, Deployment, Development, and Related Work.

## 10. Progress report

The screenshot shows the Azure DevOps web interface displaying a progress report for the test plan "E-Commerce Merchandise Team\_Stories\_Iteration 1". The report includes a summary section with a donut chart showing 100% Run (12/12 test points) and a bar chart showing 75% Pass rate (9/12 test points). The outcome trend section shows a stacked area chart for the last 14 days, with categories: Passed (green), Failed (red), and Not applicable (orange). The details table below the charts provides the following data:

Test plan name	Test points	Run %	Passed %	Failed %	Not run count
E-Commerce Merchandise Team_Stories_Iteration 1	12	100	75	16	0



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## 11.Changing the test template

Microsoft Azure Portal | M x Azure DevOps - Microsoft x My Information x Test Plan 84 Music Playlist x Settings - Process (231801) x Settings - Overview (231801) x

dev.azure.com/231801095/\_settings/process

Azure DevOps 231801095 / Settings / Process

Organization Settings 231801095

Search Settings

General

- Overview
- Projects
- Users
- Billing
- Global notifications
- Usage
- Extensions
- Microsoft Entra

Security

- Security overview
- Policies
- Permissions

Boards

- Process

Pipelines

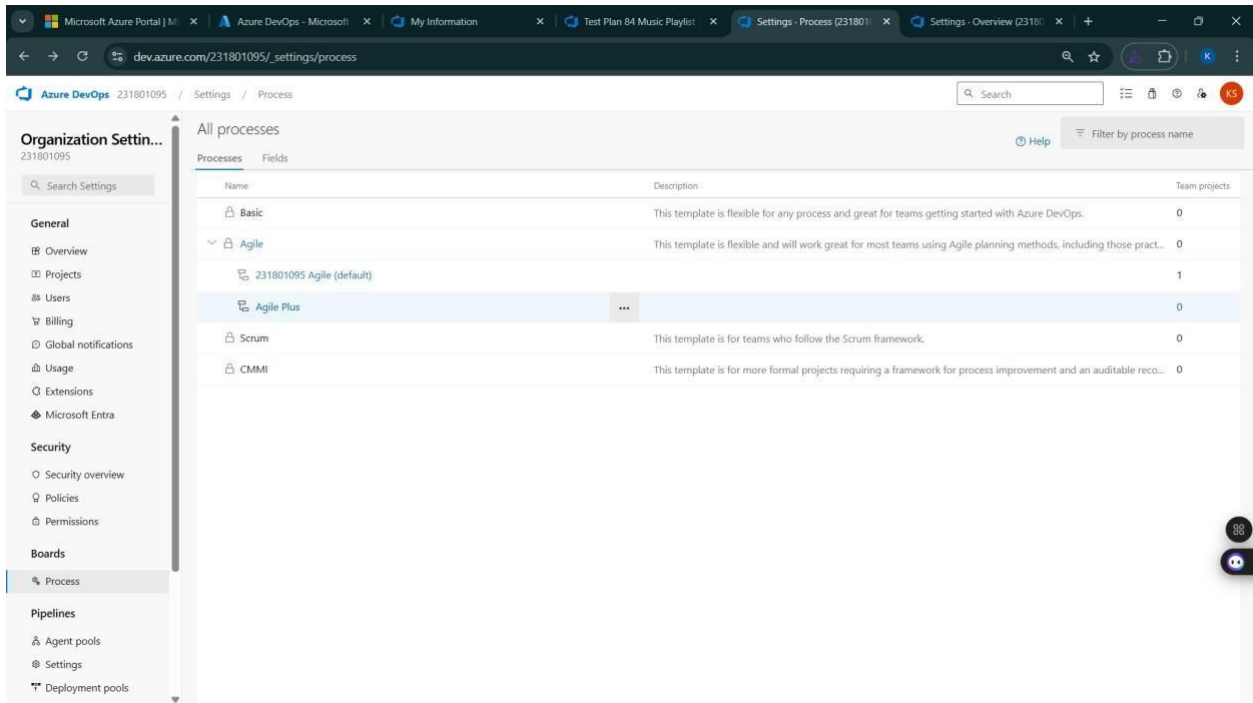
- Agent pools
- Settings
- Deployment pools

All processes

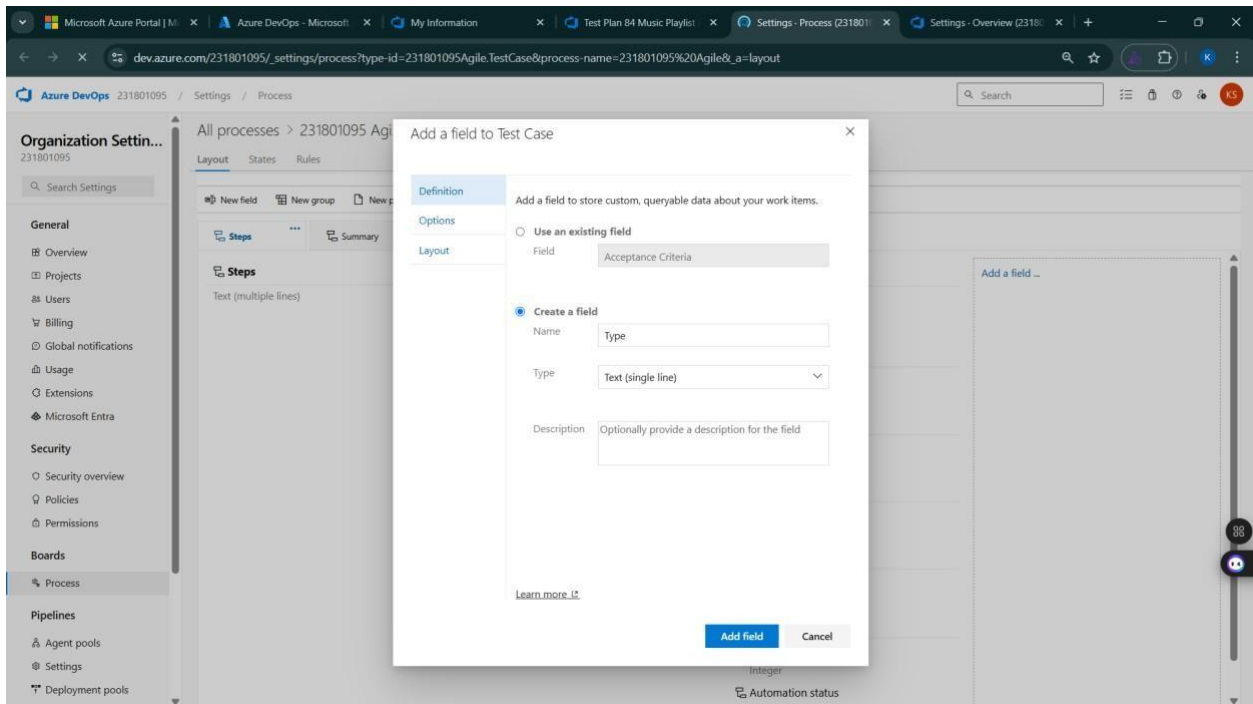
Processes Fields

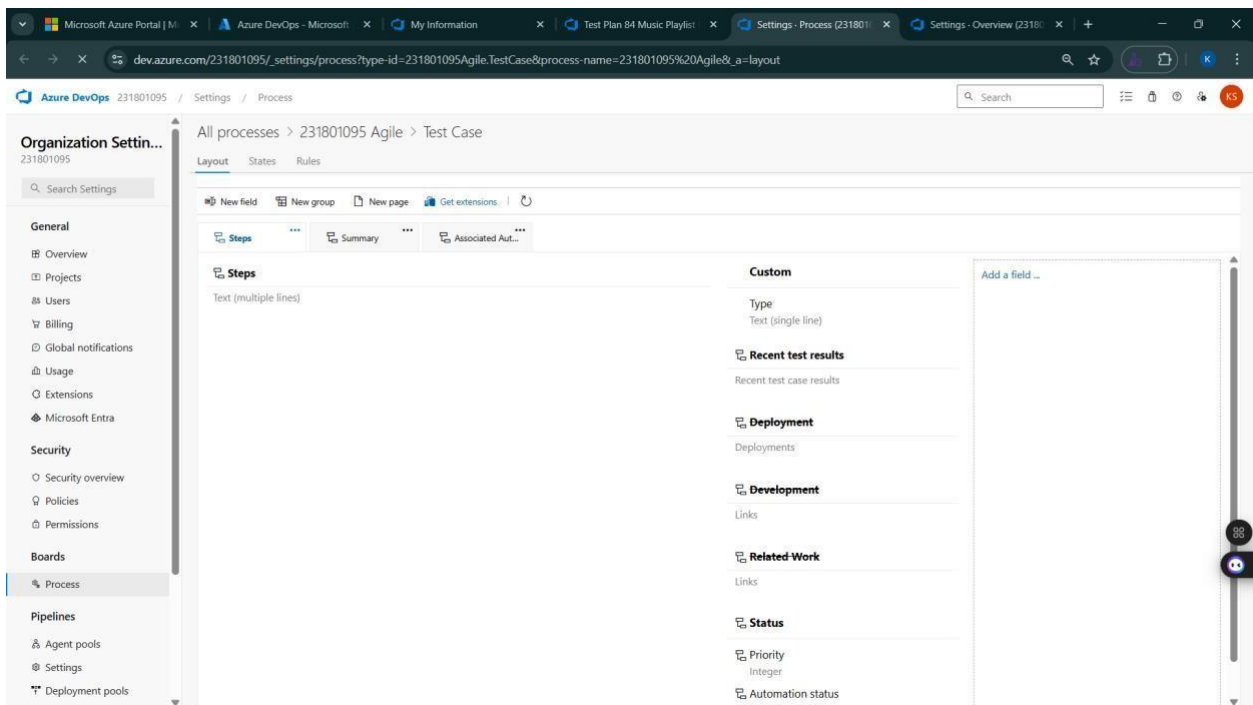
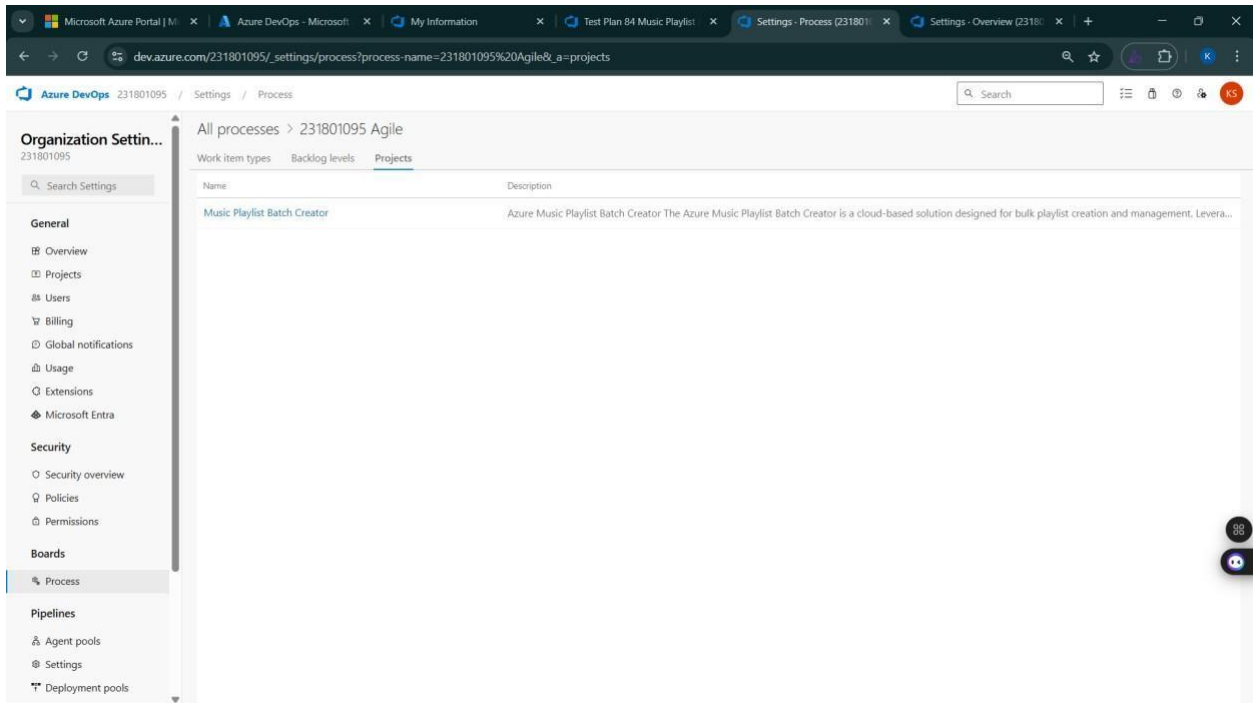
Name	Description	Team projects
Basic	This template is flexible for any process and great for teams getting started with Azure DevOps.	0
Agile	This template is flexible and will work great for most teams using Agile planning methods, including those practicing Scrum.	0
Scrum	This template is for teams who follow the Scrum framework.	0
CMMI	This template is for more formal projects requiring a framework for process improvement and an auditable record.	0





## 12.View the new test case template





## 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:

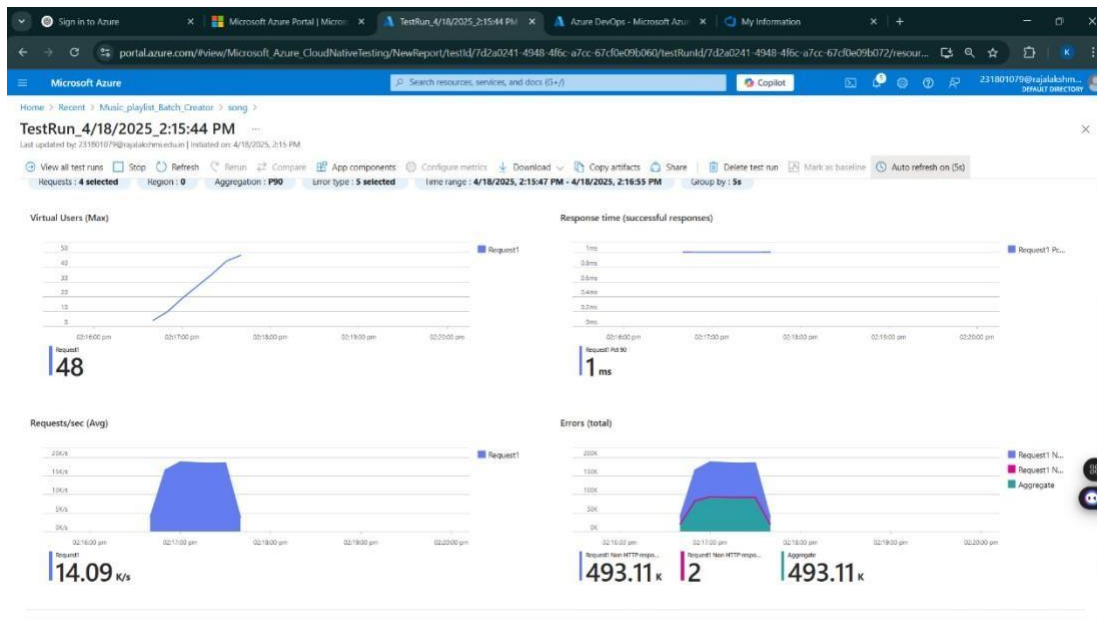
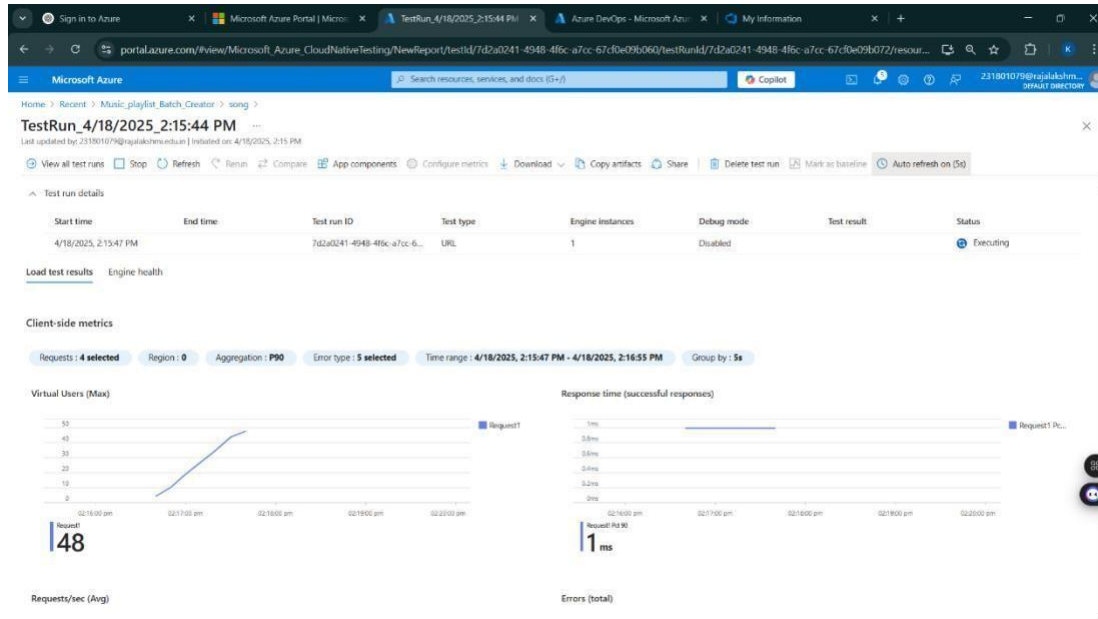
1. Sign in to Azure Portal  
Go to <https://portal.azure.com> and log in.
2. Create the Resource ○ Go to *Create a resource* → Search for “Azure Load Testing”.
  - Select Azure Load Testing and click Create.
3. Fill in the Configuration Details ○
  - Subscription: Choose your Azure subscription. ○
  - 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.

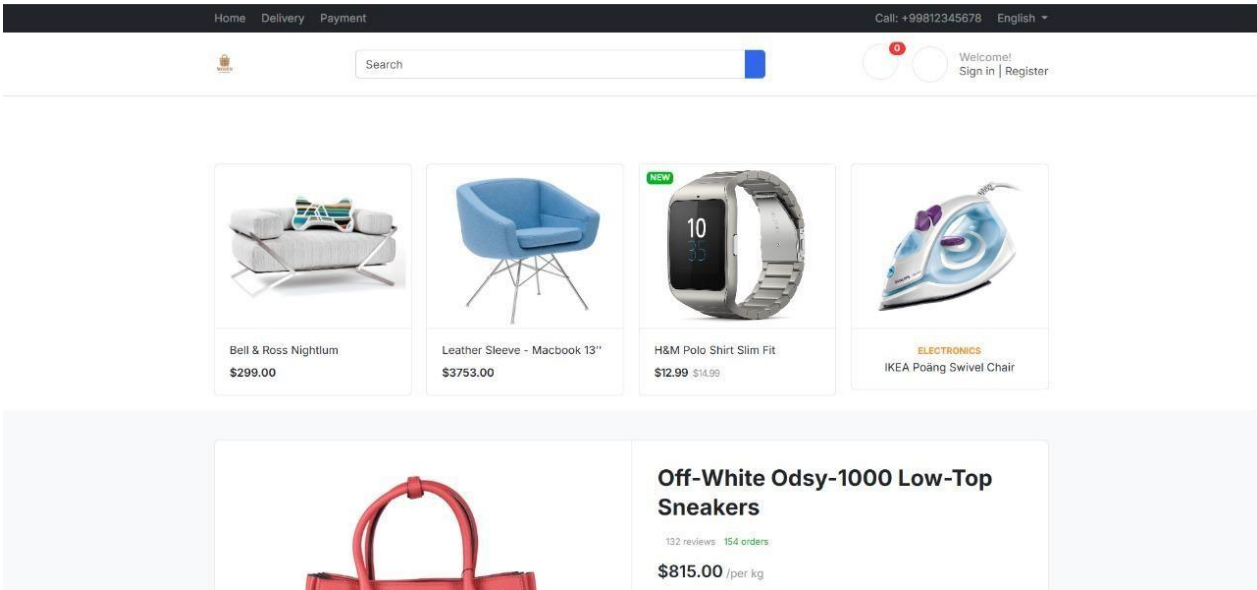
#### **Steps to Create and Run a Load Test:**

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.

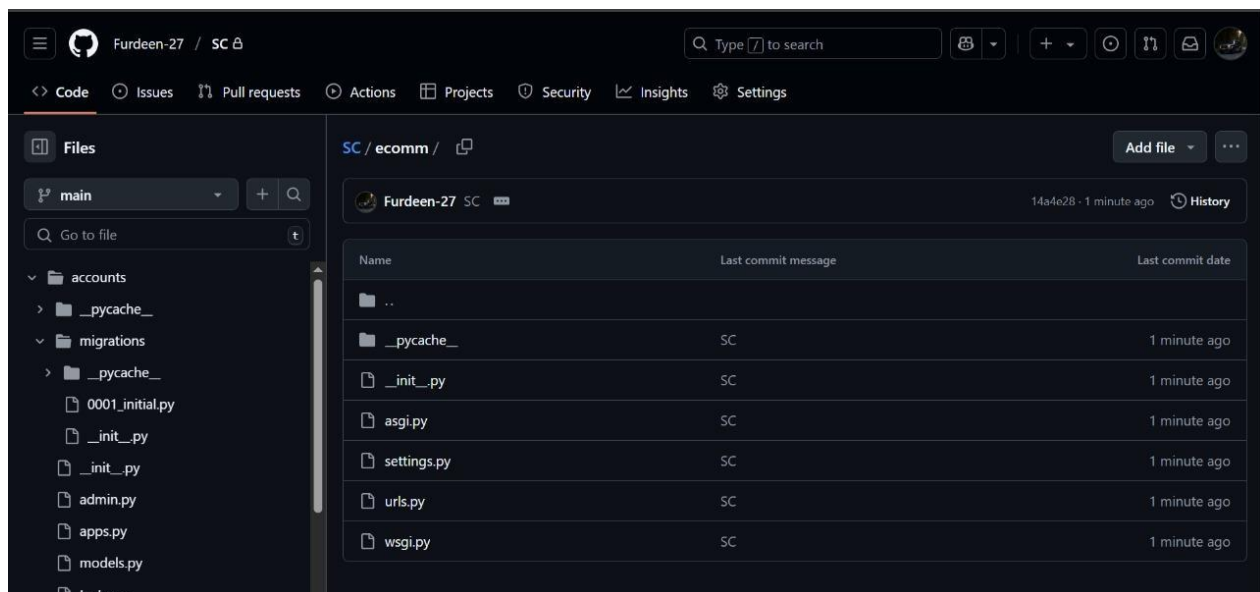
EXP NO: 10

## 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:

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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 codebase.