AZURE DEVOPS ENVIRONMENT SETUP

Aim:

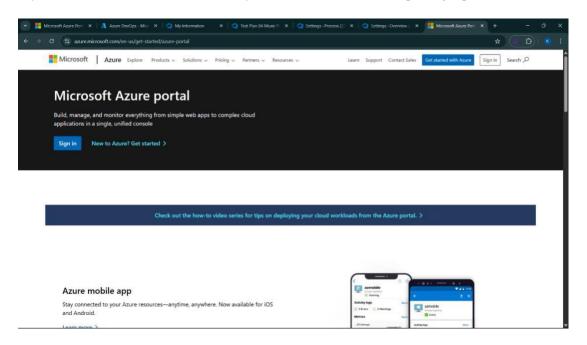
To set up and access the Azure DevOps environment by creating an organization through the Azure portal.

INSTALLATION

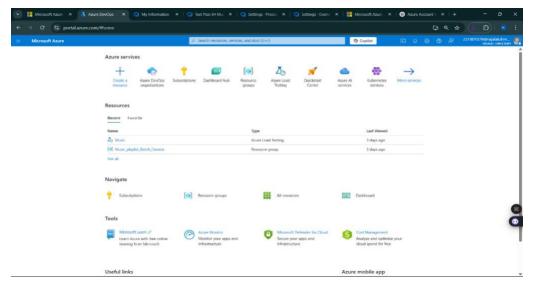
1. Open your web browser and go to the Azure website: https://azure.microsoft.com/en-us/get-started/azure-portal.

Sign in using your Microsoft account credentials.

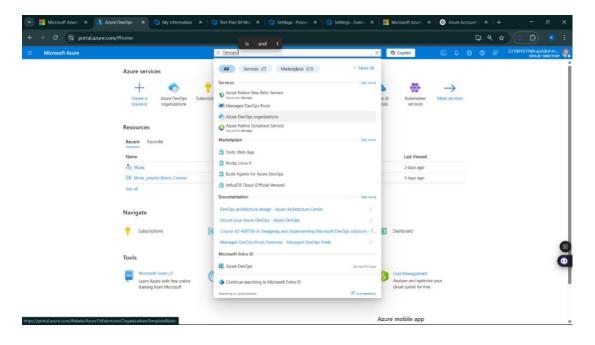
If you don't have a Microsoft account, you can create one here: https://signup.live.com/?lic=1



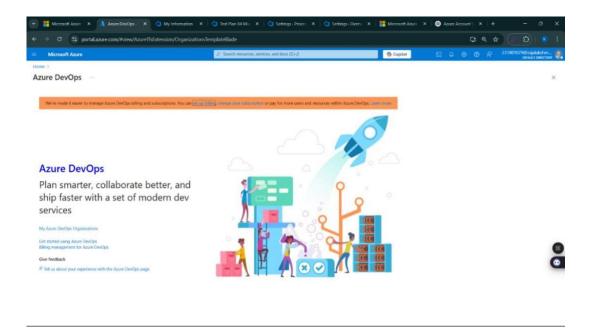
2. Azure home page



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.



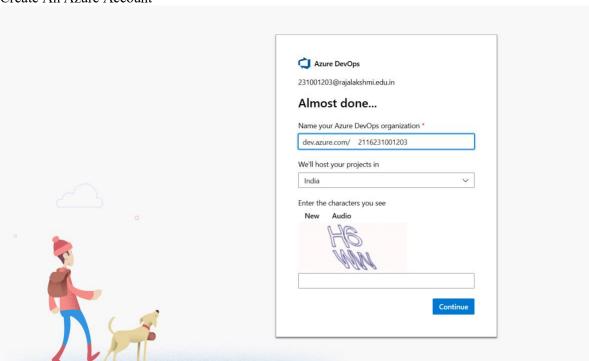
Result:	
	v anagorization thereses to the
Successfully accessed the Azure DevOps environment and created a new	v organization through the
Azure portal.	
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AZURE DEVOPS PROJECT SETUP AND USER STORY MANAGEMENT

Aim:

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

1. Create An Azure Account

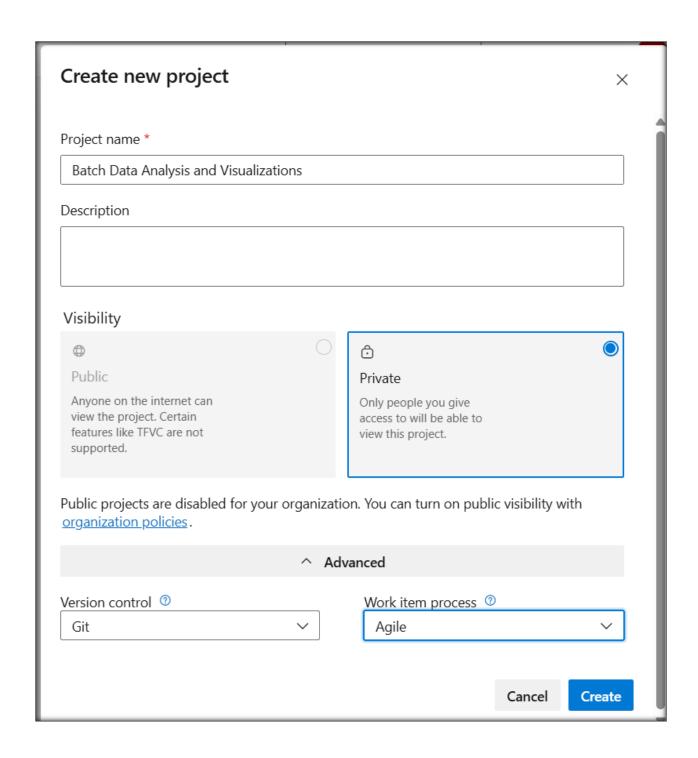


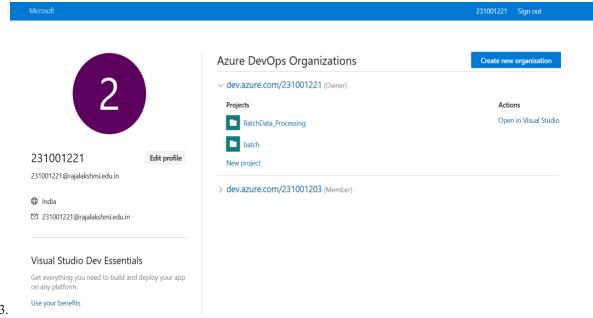
- 2. Create the First Project in Your Organization
- a. After the organization is set up, you'll need to create your first **project**. This is where you'll begin to manage code, pipelines, work items, and more.
 - b. On the organization's **Home page**, click on the **New Project** button.
 - c. Enter 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).

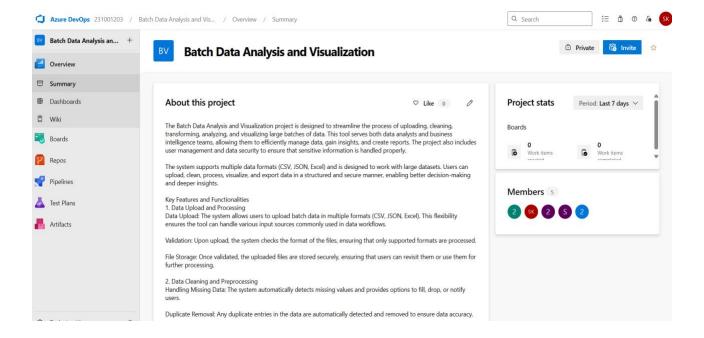
d. Once you've filled out the details, click Create to set up your first project.





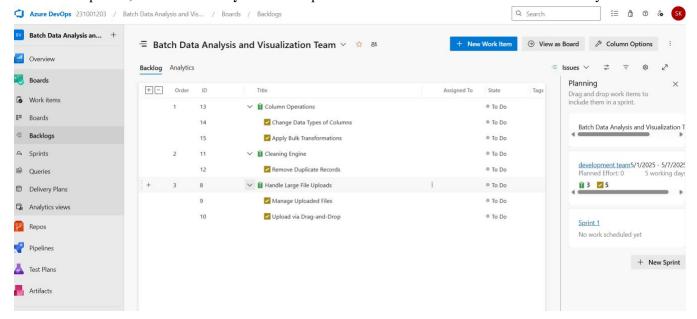
Once logged in, ensure you are in the correct organization. If you're part of multiple organizations, you can switch between them from the top left corner (next to your user profile). Click on the Organization name, and you should be taken to the Azure DevOps Organization Home page.

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.





Sign out



231001221@rajala...

231001221@rajalakshmi.edu.in

My Microsoft account

Switch directory ...



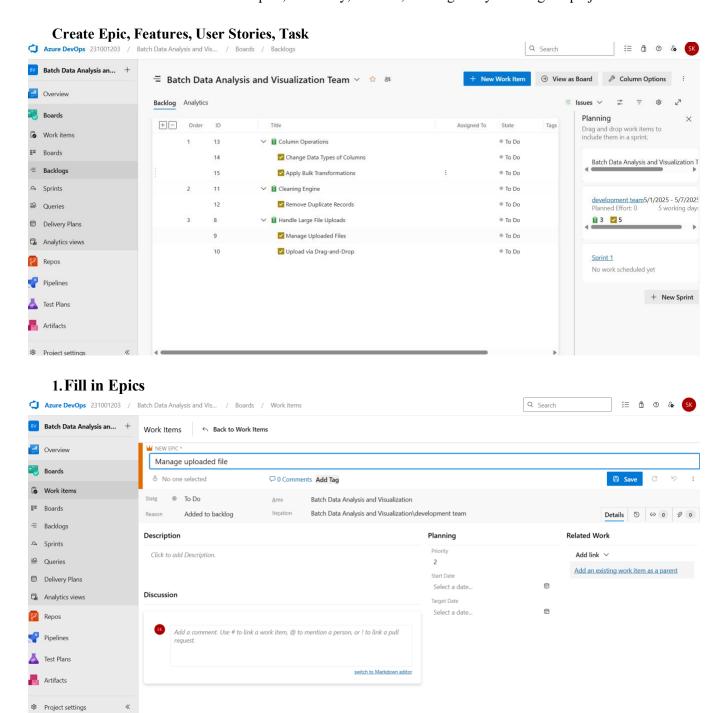
Sign in with a different account

D1	4.	
Resul	τ:	
setup.	Successfully created an Azure DevOps project with user story m	nanagement and agile workflow
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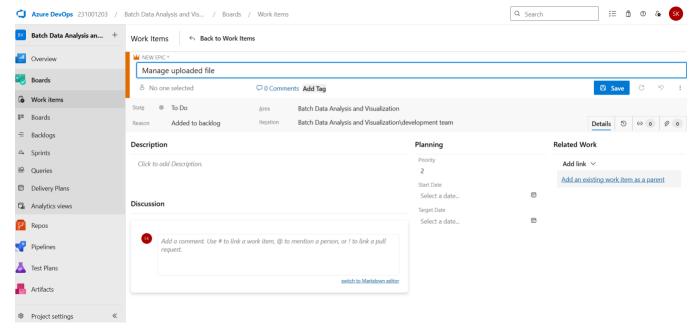
SETTING UP EPICS, FEATURES, AND USER STORIES FOR PROJECT PLANNING

Aim:

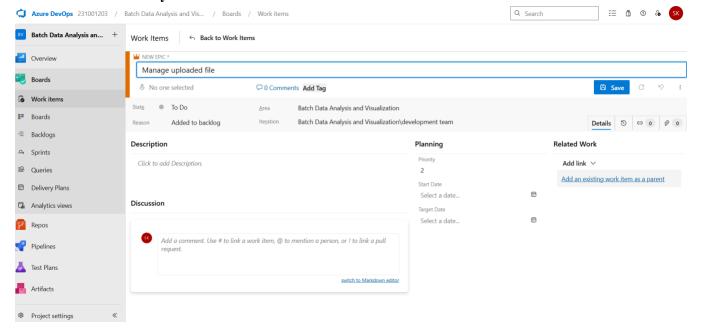
To learn about how to create epics, user story, features, backlogs for your assigned project.







3. Fill in User Story Details



Dogulto	
Result:	
Thus, the creation of epics, features, user story and tas	sk has been created successfully.
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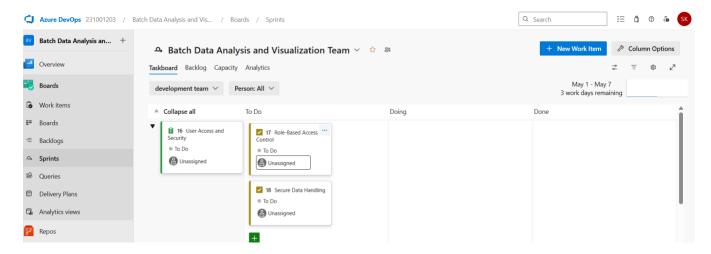
SPRINT PLANNING

Aim:

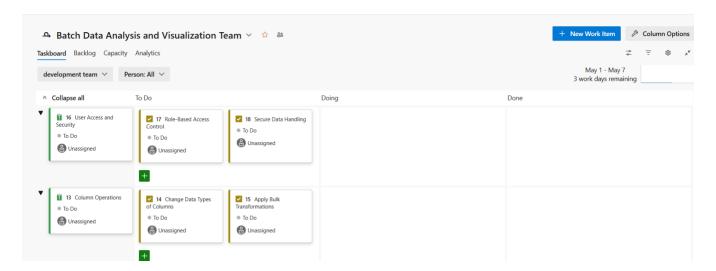
To assign user story to specific sprint for the Music Playlist Batch Creator Project.

Sprint Planning

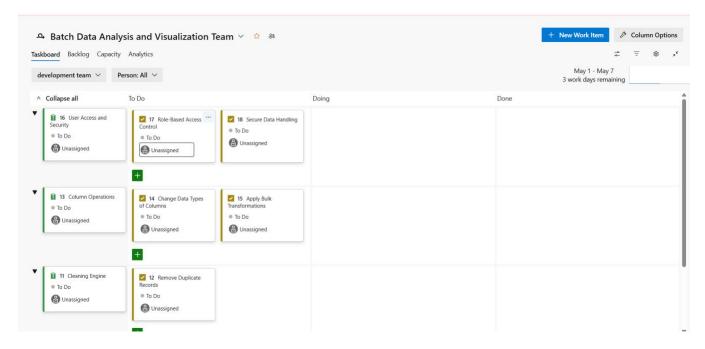
Sprint 1



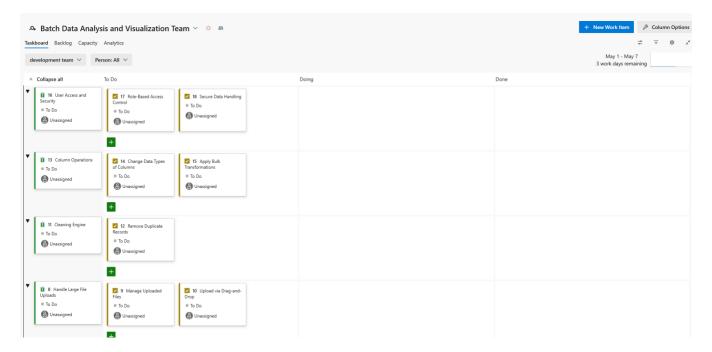
Sprint 2



Sprint 3



Sprint 4



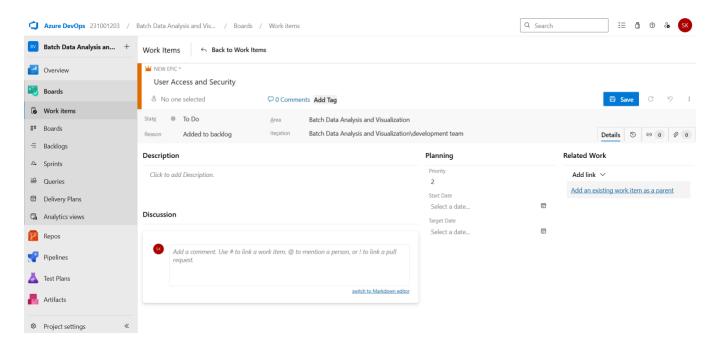
Result: The Sprints are created for the Music Playlist Batch Creator Project.	

POKER ESTIMATION

Aim:

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

Poker Estimation



Result:

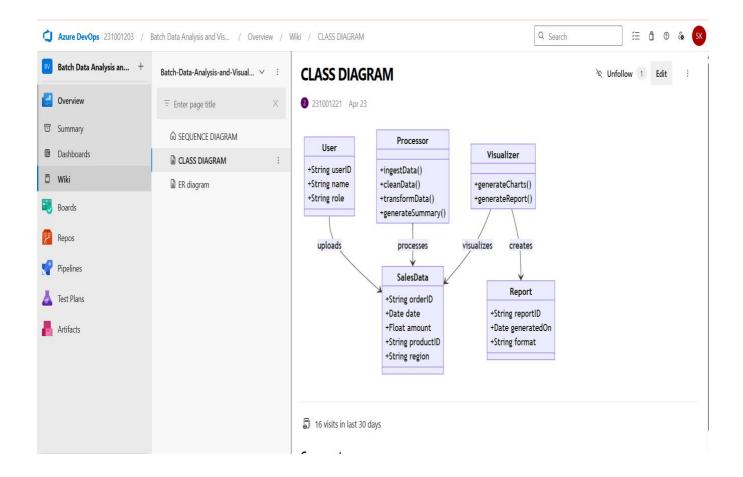
The Estimation/Story Points is created for the project using Poker Estimation.

DESIGNING CLASS AND SEQUENCE DIAGRAMS FOR PROJECT ARCHITECTURE

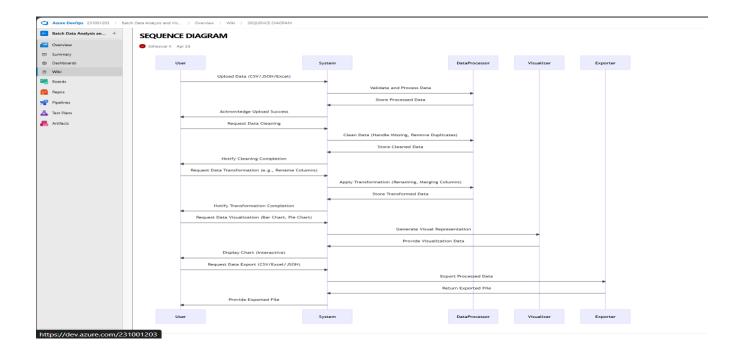
Aim:

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

6A. Class Diagram



6B. Sequence Diagram



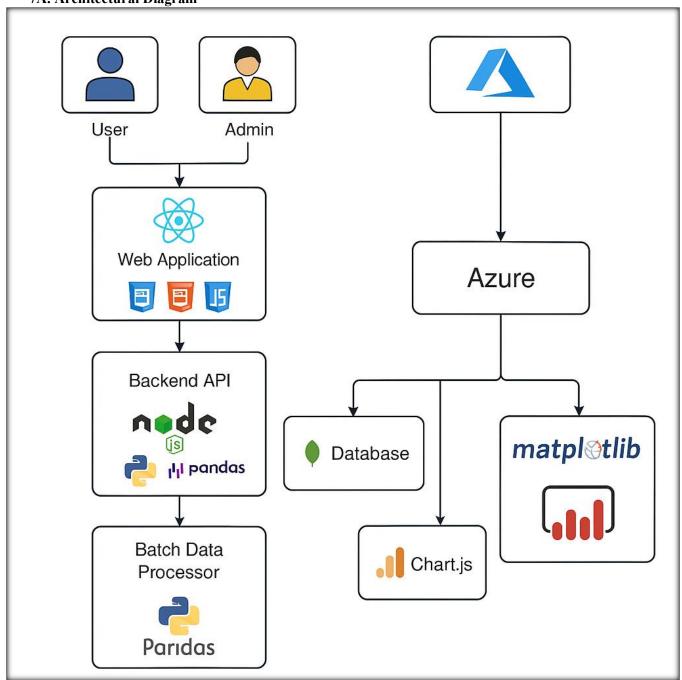
Result:	
	paggfully for the Music Playlist Datal
The Class Diagram and Sequence Diagram is designed Suc	cessiumy for the infusic Playfist Batch
Creator.	
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DESIGNING ARCHITECTURAL AND ER DIAGRAMS FOR PROJECT STRUCTURE

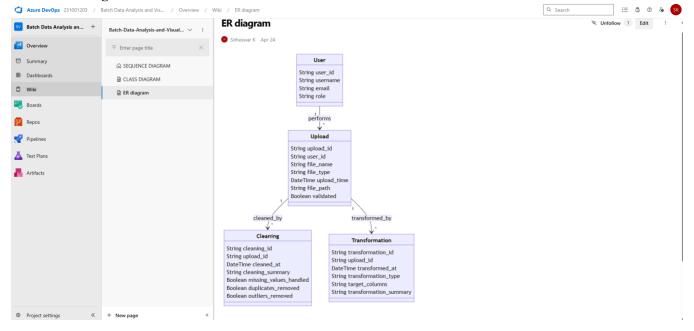
Aim:

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

7A. Architectural Diagram







Posmit.	
Result:	
Result: The Architecture Diagram and ER Diagram is designed Successf	fully for the Music Playlist Batch
The Architecture Diagram and ER Diagram is designed Successf	fully for the Music Playlist Batch
The Architecture Diagram and ER Diagram is designed Successf	fully for the Music Playlist Batch
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The Architecture Diagram and ER Diagram is designed Successf	fully for the Music Playlist Batch
The Architecture Diagram and ER Diagram is designed Successf Creator	
Result: The Architecture Diagram and ER Diagram is designed Successforeator 2116231001221	fully for the Music Playlist Batch CS23432

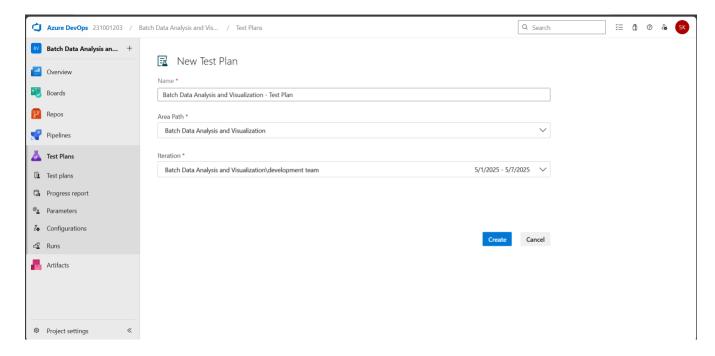
TESTING - TEST PLANS AND TEST CASES

Aim:

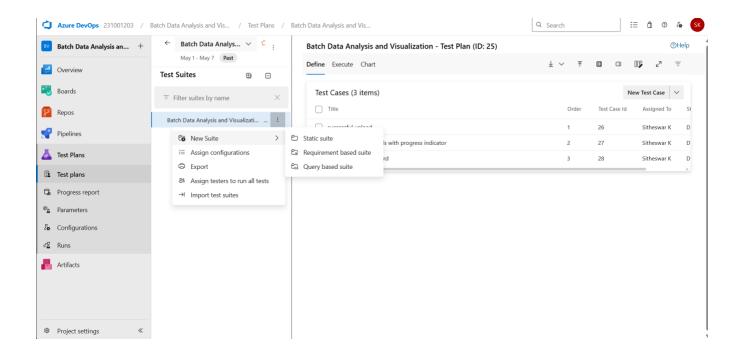
Test Plans and Test Case and write two test cases for at least five user stories showcasing the happy path and error scenarios in azure DevOps platform.

Test Planning and Test Case

1. New test plan



2. Test suite



USER STORIES

- US01 (ID: 201): As a user, I want to upload data files (CSV, JSON, etc.) for analysis.
- US02 (ID: 202): As a user, I want to view the uploaded data in tabular format.
- US03 (ID: 203): As a user, I want to visualize insights (charts, graphs) using various parameters.
- US04 (ID: 204): As an admin, I want to manage users and access controls.
- US05 (ID: 205): As a user, I want to download the analyzed data or charts

Test Suite: TS01 - Data Upload & Parsing (ID: 301)

TC01 - Successful CSV Upload

- Action:
 - o Log in.
 - o Go to upload section.
 - Select a valid CSV file and upload.
- Expected:
 - o File uploads successfully, and data preview is shown.
- Type: Happy Path

TC02 – Upload with Unsupported Format

- Action:
 - o Try uploading an XML file.
- Expected:
 - o Error: "Unsupported file format."

Type: Error Path

Test Suite: TS02 - Data Viewing (ID: 302)

TC03 – Display Uploaded Data

- Action:
 - Upload a valid CSV file.
 - o Click "View Data".
- Expected:
 - o Table displays with correct rows and columns.
- Type: Happy Path

TC04 - View Without Upload

- Action:
 - o Directly click "View Data" without any upload.
- Expected:
 - o Error: "No data available. Please upload a file."
- Type: Error Path

Test Suite: TS03 - Visualization (ID: 303)

TC05 - Generate Chart from Data

- Action:
 - o Upload data.
 - o Select chart type (e.g., bar).
 - Select fields and click "Generate".
- Expected:
 - o Chart displays based on selected fields.
- Type: Happy Path

TC06 - Chart Generation with Missing Input

- Action:
 - o Upload data but don't select any field.
 - o Click "Generate Chart".
- Expected:
 - Error: "Select at least one field to visualize."
- Type: Error Path

Test Suite: TS04 - Admin User Management (ID: 304)

TC07 - Admin Access Dashboard

- Action:
 - o Login as admin.
 - o Go to "User Management".
- Expected:
 - List of registered users appears.
- Type: Happy Path

TC08 - Non-Admin Tries Admin Access

- Action:
 - o Login as a normal user.
 - o Attempt to access admin panel via URL.
- Expected:
 - o Error: "Access Denied."
- Type: Error Path

Test Suite: TS05 - Data Download (ID: 305)

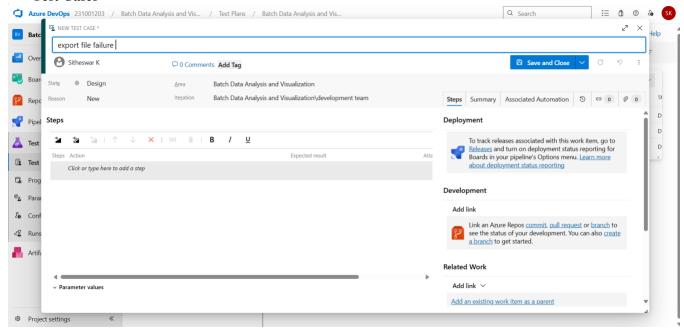
TC09 – Download Data as CSV

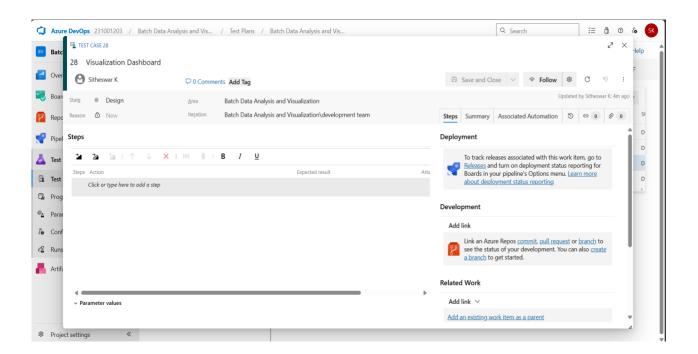
- Action:
 - o After analysis, click "Download CSV".
- Expected:
 - o File downloads successfully.
- Type: Happy Path

TC10 - Download Without Analysis

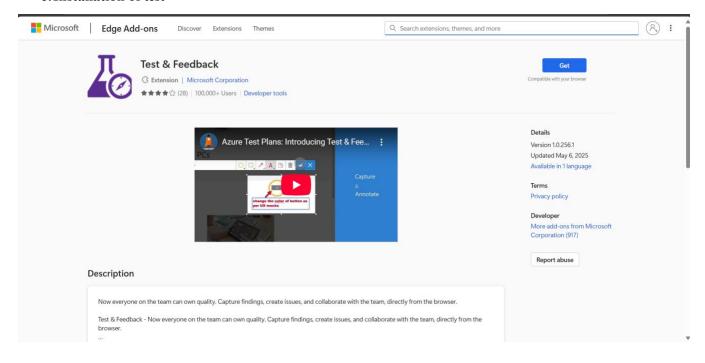
- Action:
 - o Click "Download CSV" before uploading any data.
- Expected:
 - o Error: "No data available to download."
- Type: Error Path

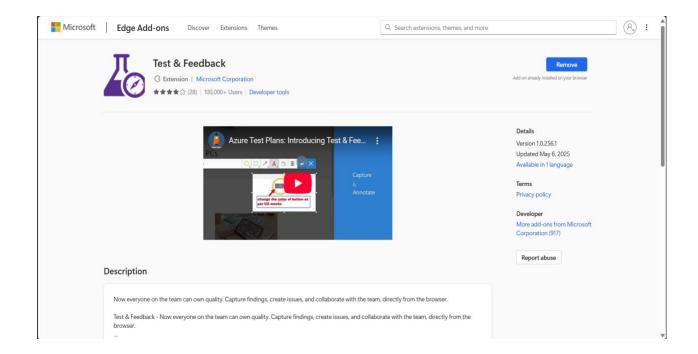
Test Cases



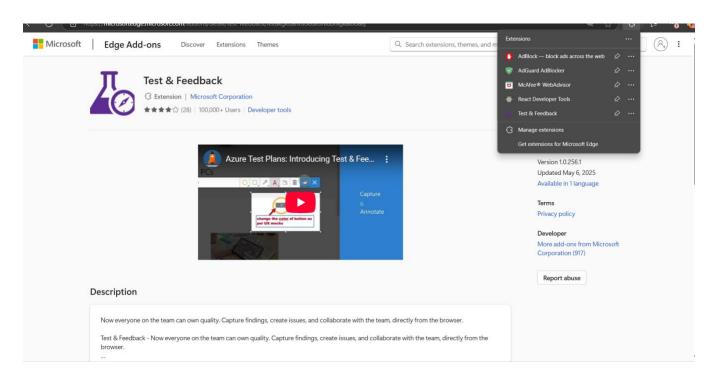


3. Installation of test

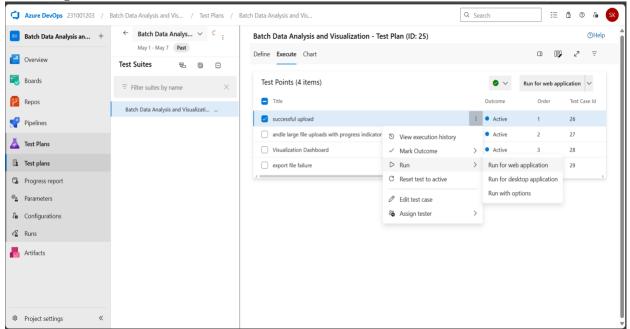


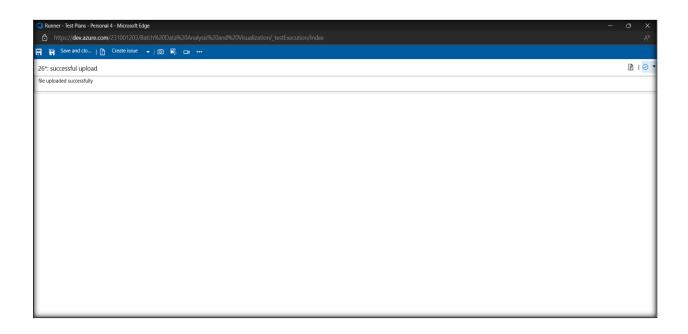


Test and feedback Showing it as an extension

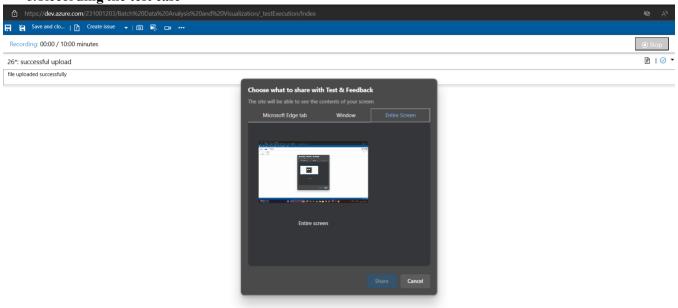


4. Running the test cases

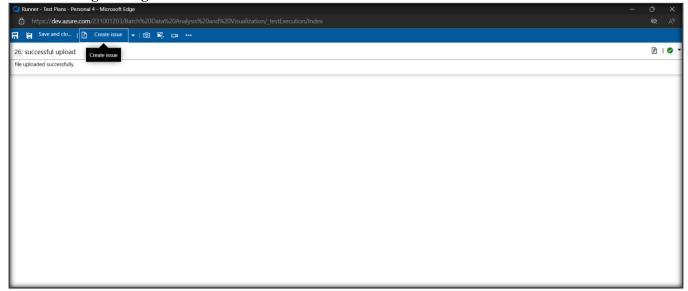


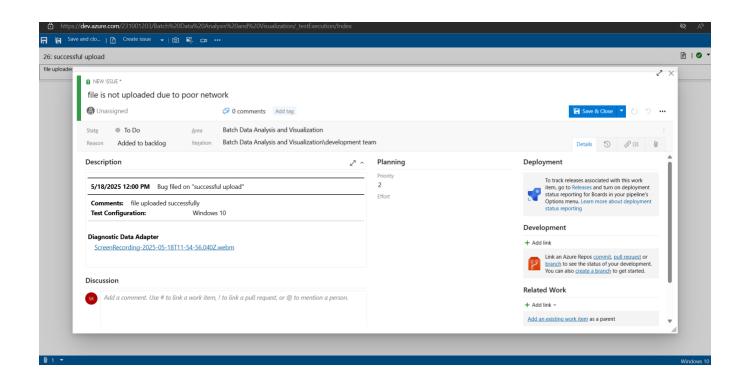


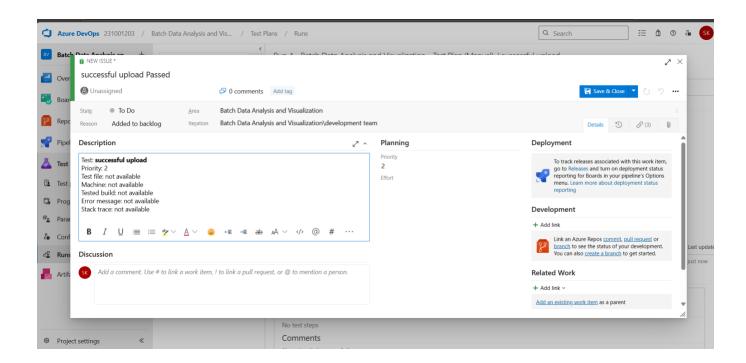
5. Recording the test case



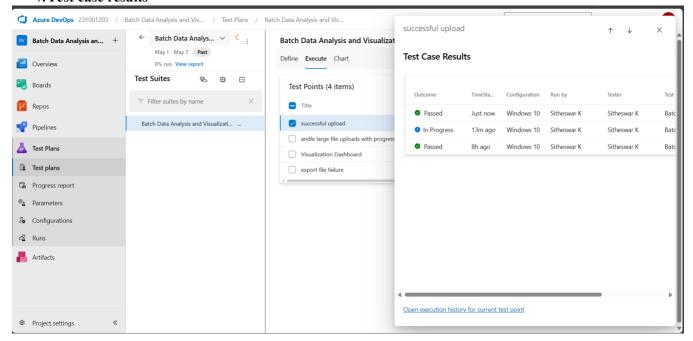
6. Creating the bug



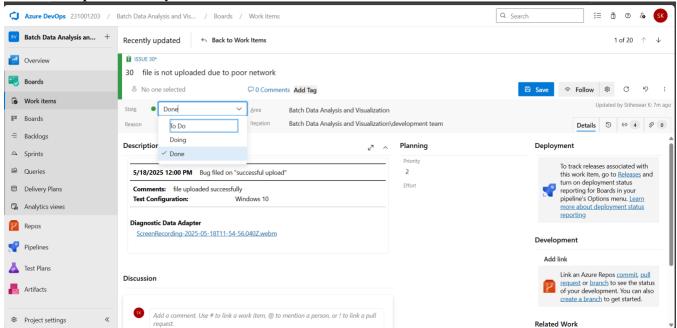




7. Test case results

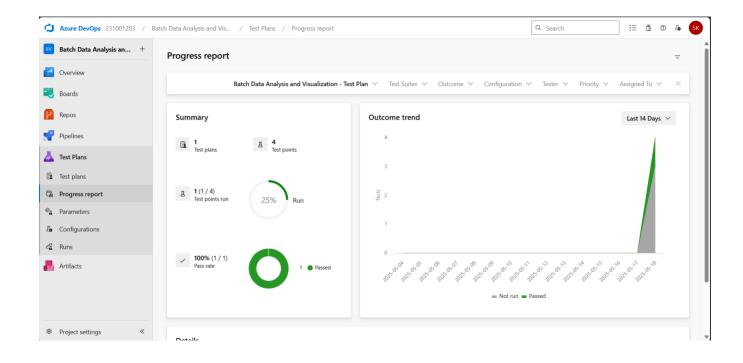


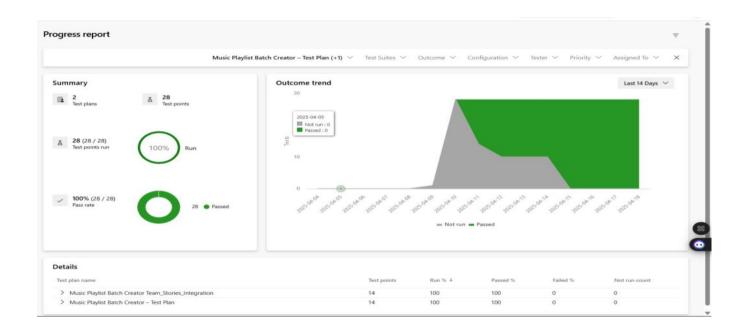
8. Test report summary



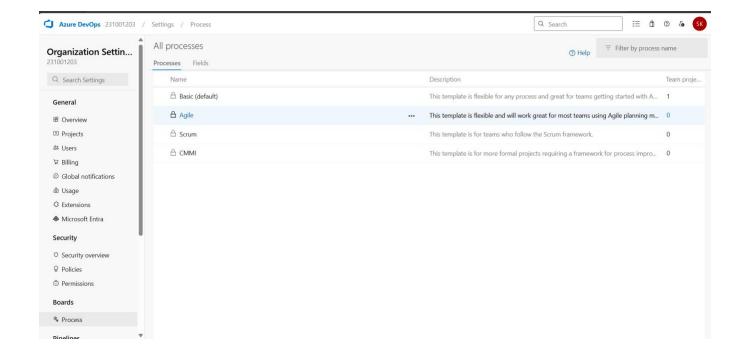
Assigning bug to the developer and changing state

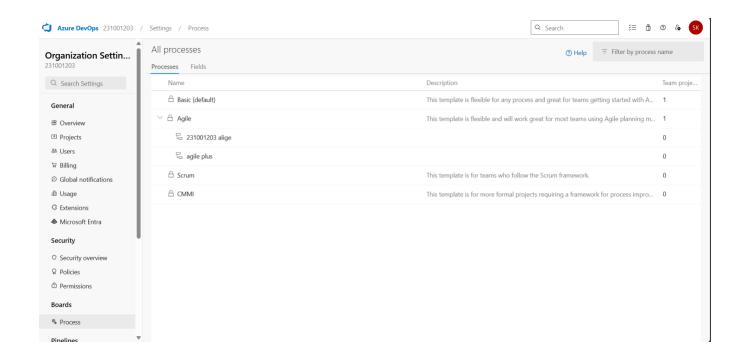
9. Progress report

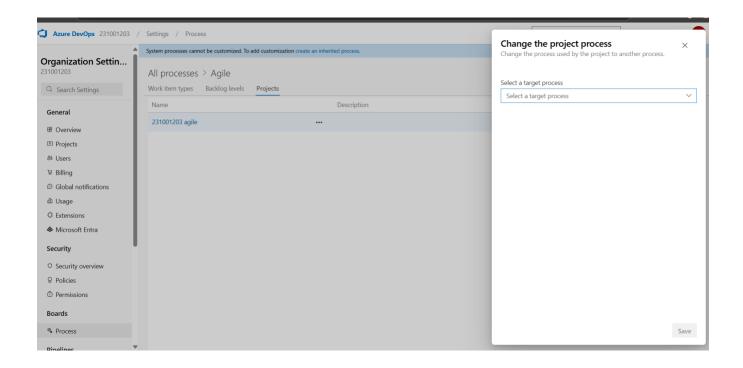




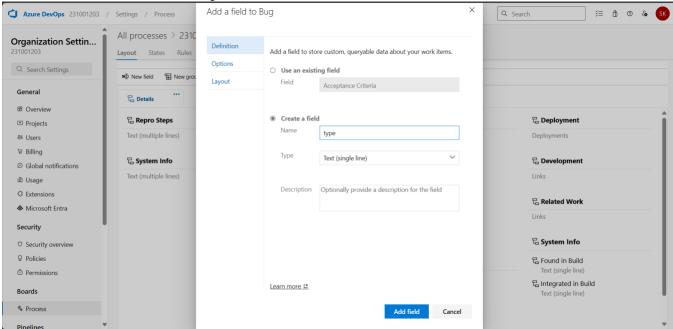
10. Changing the test template

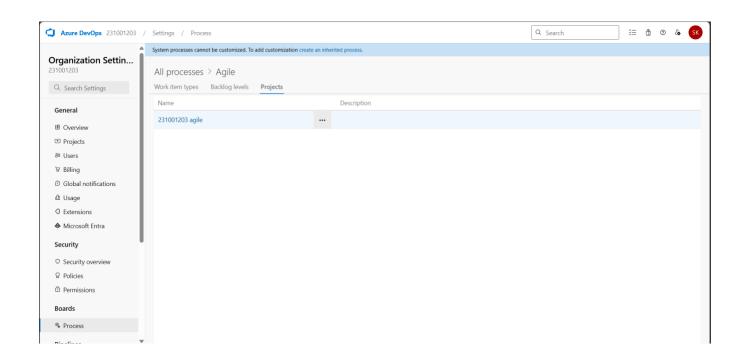


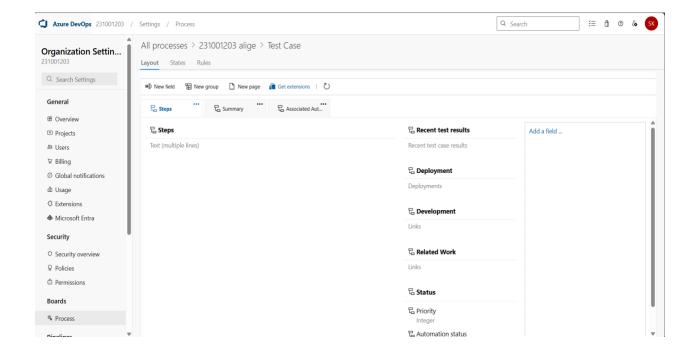




11. View the new test case template







Result:

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

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
 - o Go to Create a resource \rightarrow Search for "Azure Load Testing".
 - Select Azure Load Testing and click Create.
- 3. Fill in the Configuration Details
 - o Subscription: Choose your Azure subscription.
 - o Resource Group: Create new or select an existing one.
 - o *Name*: Provide a unique name (no special characters).
 - o 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.

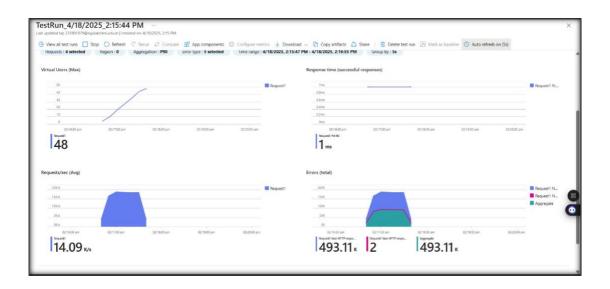
Steps to Create and Run a Load Test:

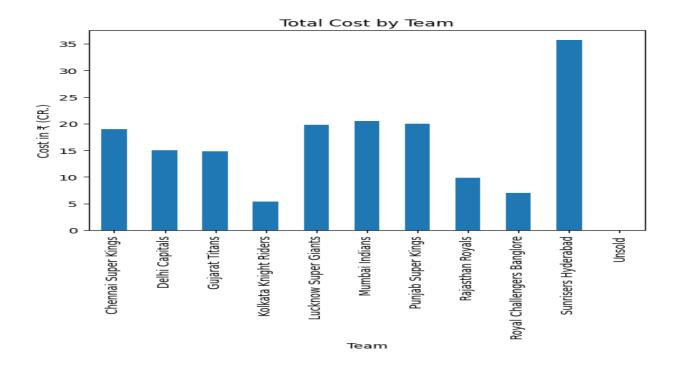
Once your resource is ready:

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

Load Testing







Result:

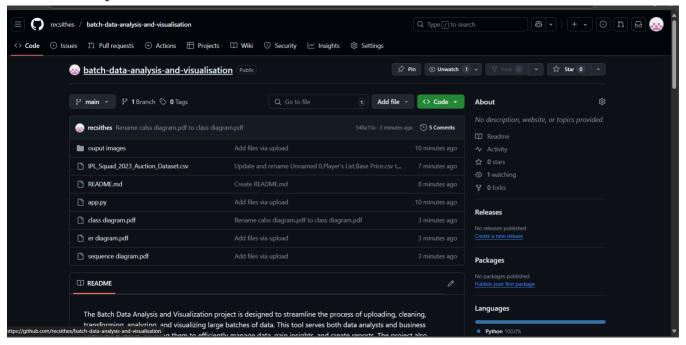
Successfully created the Azure Load Testing resource and executed a load test to assess the performance of the specified endpoint.

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 codebase.