

**EXP NO: 1**

## **AZURE DEVOPS ENVIRONMENT SETUP**

### **Aim:**

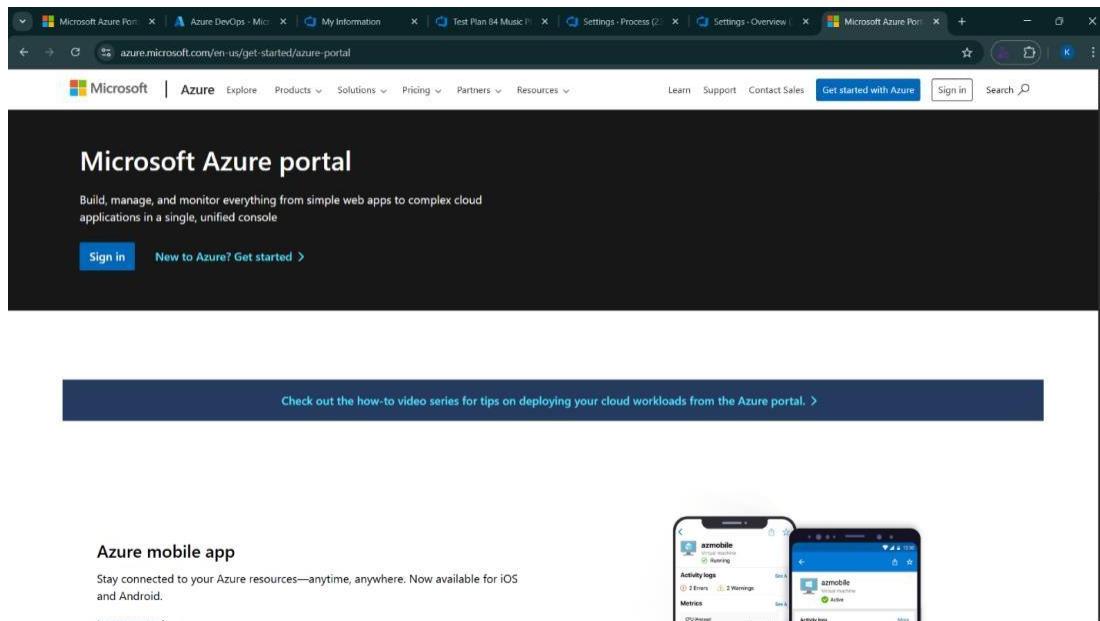
To set up and access the Azure DevOps environment by creating an organization through the Azure portal.

### **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>



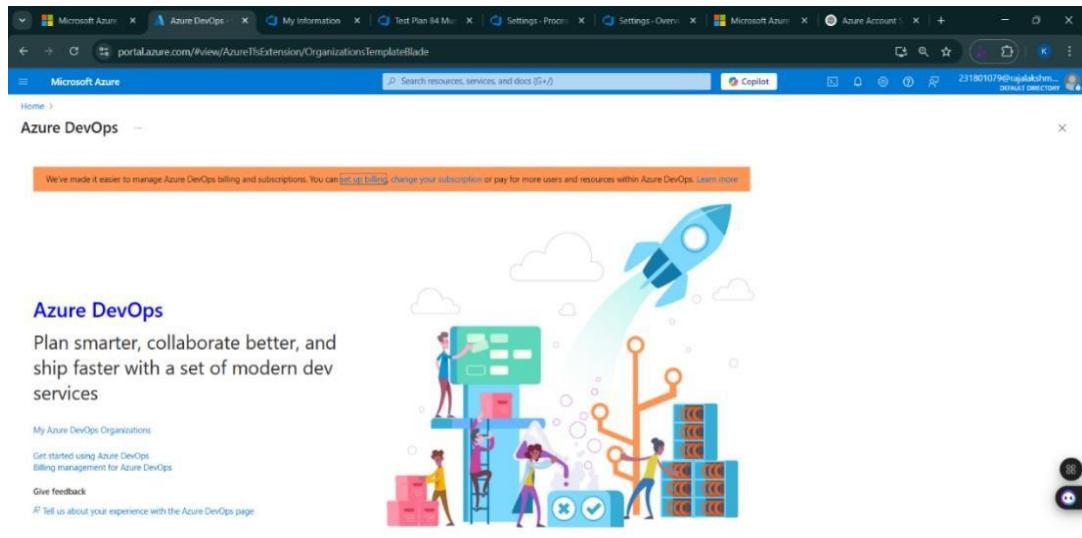
## 2. Azure home page

The screenshot shows the Microsoft Azure home page. At the top, there's a navigation bar with tabs like 'Microsoft Azure', 'Azure DevOps', 'My Information', 'Test Plan 84 Min...', 'Settings - Process', 'Settings - Overview', 'Microsoft Azure', and 'Azure Account'. Below the navigation is a search bar with the placeholder 'Search resources, services, and docs (S+?)' and a 'Copilot' button. The main content area is titled 'Azure services' and includes a 'Create a resource' button and icons for 'Azure DevOps organizations', 'Subscriptions', 'Dashboard hub', 'Resource groups', 'Azure Load Testing', 'Quickstart Center', 'Azure AI services', 'Kubernetes services', and 'More services'. A 'Resources' section shows a table with two items: 'Music' (Azure Load Testing) and 'Music\_playlist\_Batch\_Creator' (Resource group). Below this is a 'Navigate' section with links for 'Subscriptions', 'Resource groups', 'All resources', and 'Dashboard'. A 'Tools' section includes links for 'Microsoft Learn', 'Azure Monitor', 'Microsoft Defender for Cloud', and 'Cost Management'. At the bottom, there's a 'Useful links' section and an 'Azure mobile app' link.

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

This screenshot is similar to the previous one but with a search bar containing the text 'DevOps'. The search results are displayed below the search bar, showing a list of items under 'Services', 'Marketplace', 'Documentation', and 'Microsoft Entra ID'. The 'Services' section includes 'Azure Native New Relic Service', 'Managed DevOps Pools', 'Azure DevOps organizations', and 'Azure Native Dynatrace Service'. The 'Marketplace' section includes 'Static Web App', 'Rocky Linux 9', 'Build Agents for Azure DevOps', and 'InfluxDB Cloud (Official Version)'. The 'Documentation' section includes links to 'DevOps architecture design - Azure Architecture Center', 'Secure your Azure DevOps - Azure DevOps', and 'Course A2-400T00-A: Designing and Implementing Microsoft DevOps solutions - T...'. The 'Microsoft Entra ID' section includes 'Azure DevOps' and 'Continue searching in Microsoft Entra ID'. The rest of the page layout is identical to the first screenshot.

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.

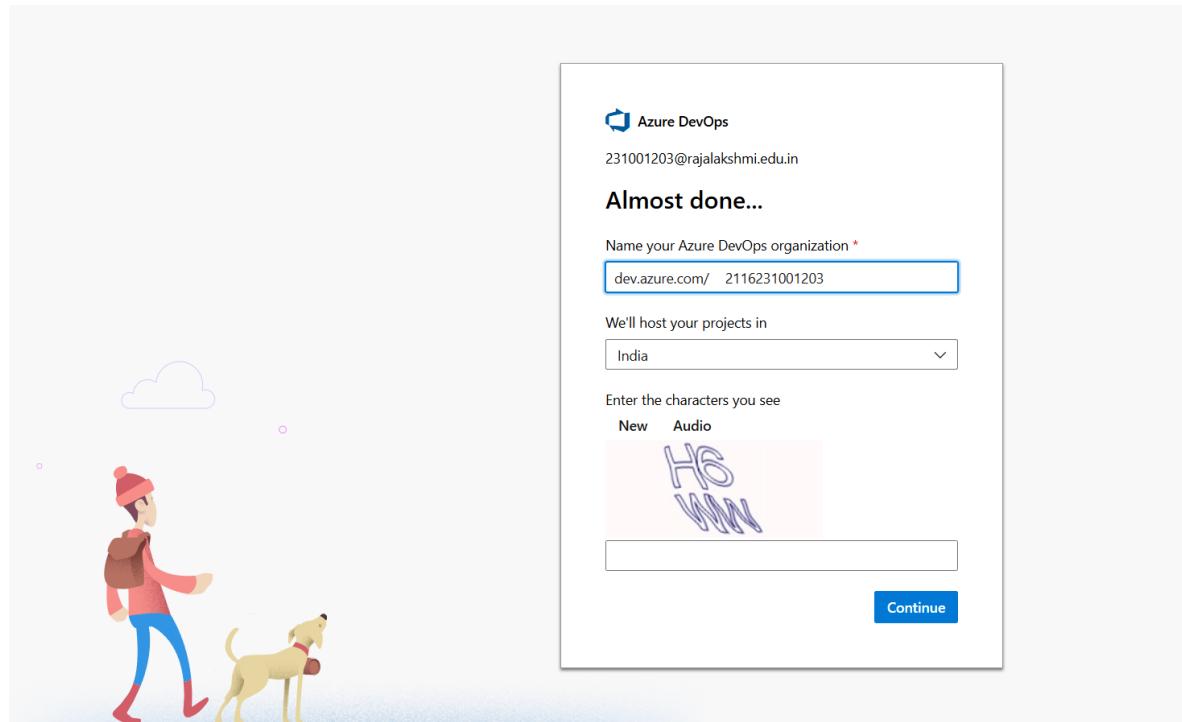
**EXP NO: 2**

## **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.

## Create new project

X

Project name \*

Batch Data Analysis and Visualizations

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

Version control [?](#)

Git

Work item process [?](#)

Agile

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.

The screenshot shows the Microsoft Edge browser window displaying the Azure DevOps Organization Home page. The URL in the address bar is [aex.dev.azure.com/me?mkt=en-US](https://aex.dev.azure.com/me?mkt=en-US). The page header includes the Microsoft logo, the user's name '231001218', and a 'Sign out' link. On the left, there is a large teal circular profile picture placeholder with the number '2'. Below it, the user's details are listed: '231001218', an email address '231001218@rajalakshmi.edu.in', a location 'India', and an email address '231001218@rajalakshmi.edu.in'. A horizontal line separates this from the 'Visual Studio Dev Essentials' section. This section contains a heading, a brief description, and a 'Use your benefits' button. The main content area is titled 'Azure DevOps Organizations' and shows a list of organizations the user is part of: 'dev.azure.com/231001218' (Owner), 'dev.azure.com/231001195' (Member), and 'dev.azure.com/231001203' (Member). There is also a 'Create new organization' button. To the right of the organization list, there is a 'Projects' section with a single item 'Batch data and processing' and an 'Actions' section with a 'Open in Visual Studio' link. The bottom of the screen shows the Windows taskbar with various pinned icons and system status indicators.

#### 4. Project dashboard

The screenshot shows the Azure DevOps Project Overview page for the 'Batch Data Analysis and Visualization' project. The left sidebar includes links for Overview, Summary, Dashboards, Wiki, Boards, Repos, Pipelines, Test Plans, Artifacts, and Project settings. The main content area features a title 'Batch Data Analysis and Visualization' and a section titled 'About this project'. It describes the tool's purpose of streamlining data processing and includes sections on Key Features and Functionalities, such as Data Upload and Processing, Data Cleaning and Preprocessing, and Outlier Detection. To the right, there are 'Project stats' showing 0 work items and 6 members, each represented by a colored profile icon. The bottom of the screen shows the Windows taskbar with various pinned icons.

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.

The screenshot shows the Azure DevOps Boards backlog page for the 'Batch Data Analysis and Visualization Team'. The left sidebar is visible with options like Overview, Boards, Work items, Boards, Backlogs, Sprints, Queries, Delivery Plans, Analytics views, Repos, Pipelines, Test Plans, and Artifacts. The 'Backlogs' section is selected. The main area displays a backlog of work items with columns for Order, ID, Title, Assigned To, State, and Tags. Work items include tasks like 'User Access and Security', 'Column Operations', 'Change Data Types of Columns', 'Apply Bulk Transformations', 'Cleaning Engine', 'Remove Duplicate Records', 'Handle Large File Uploads', 'Manage Uploaded Files', and 'Upload via Drag-and-Drop'. A summary on the right indicates 5 work items planned for 5 working days. A 'Sprint 1' section shows no work scheduled yet. A 'New Sprint' button is available.

The screenshot shows the Microsoft sign-in page. It features the Microsoft logo and a large teal circular profile picture with the number '2'. The user ID '231001218' and email '231001218@rajalakshmi.edu.in' are displayed. Below this, there are links for 'My Microsoft account' and 'Switch directory'. At the bottom, there is a 'Sign in with a different account' button with a user icon.

2116231001218

CS23432

**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 shows the Azure DevOps Boards backlog view for the 'Batch Data Analysis and Visualization Team'. On the left, there's a sidebar with navigation links like Overview, Boards, Work items, Backlogs, Sprints, Queries, Delivery Plans, Analytics views, Repos, Pipelines, Test Plans, Artifacts, and Project settings. The main area displays a backlog of tasks with columns for Order, ID, Title, Assigned To, State, and Tags. Some tasks have checkmarks next to them. To the right, there's a 'Planning' section with a board for 'development team' showing tasks for 'Sprint 1' with a planned effort of 0 days over 5 working days. A progress bar indicates completion status.

### **1. Fill in Epics**

The screenshot shows the Azure DevOps Work Items page for creating a new epic. The sidebar includes links for Overview, Boards, Work items, Backlogs, Sprints, Queries, Delivery Plans, Analytics views, Repos, Pipelines, Test Plans, Artifacts, and Project settings. The main area has tabs for 'Work Items' and 'Backlog'. A modal window titled 'NEW EPIC' is open, prompting the user to 'Manage uploaded file'. It includes fields for State (set to 'To Do'), Area (Batch Data Analysis and Visualization), Reason (Added to backlog), Iteration (Batch Data Analysis and Visualization\development team), and a 'Save' button. Below the modal, there are sections for 'Description' (with a placeholder 'Click to add Description.') and 'Discussion' (with a placeholder 'Add a comment. Use # to link a work item, @ to mention a person, or ! to link a pull request.' and a 'switch to Markdown editor' link).

## 2. Fill in Features

Azure DevOps 231001203 / Batch Data Analysis and Vis... / Boards / Work items

Work Items | Back to Work Items

NEW EPIC \* Manage uploaded file

No one selected 0 Comments Add Tag

State: To Do Area: Batch Data Analysis and Visualization  
Reason: Added to backlog Iteration: Batch Data Analysis and Visualization\development team

Save

Description: Click to add Description.

Planning: Priority 2 Start Date: Select a date... Target Date: Select a date...

Related Work: Add link Add an existing work item as a parent

Discussion: Add a comment. Use # to link a work item, @ to mention a person, or ! to link a pull request.

switch to Markdown editor

## 3. Fill in User Story Details

Azure DevOps 231001203 / Batch Data Analysis and Vis... / Boards / Work items

Work Items | Back to Work Items

NEW EPIC \* Manage uploaded file

No one selected 0 Comments Add Tag

State: To Do Area: Batch Data Analysis and Visualization  
Reason: Added to backlog Iteration: Batch Data Analysis and Visualization\development team

Save

Description: Click to add Description.

Planning: Priority 2 Start Date: Select a date... Target Date: Select a date...

Related Work: Add link Add an existing work item as a parent

Discussion: Add a comment. Use # to link a work item, @ to mention a person, or ! to link a pull request.

switch to Markdown editor

**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 Music Playlist Batch Creator Project.

## Sprint Planning

### Sprint 1

Azure DevOps 231001203 / Batch Data Analysis and Vis... / Boards / Sprints

Batch Data Analysis an... +

Overview

Boards

Work items

Boards

Backlogs

Sprints

Queries

Delivery Plans

Analytics views

Repos

Batch Data Analysis and Visualization Team

Taskboard Backlog Capacity Analytics

development team Person: All

May 1 - May 7  
3 work days remaining

To Do	Doing	Done
16 User Access and Security ● To Do 👤 Unassigned	17 Role-Based Access Control ● To Do 👤 Unassigned	18 Secure Data Handling ● To Do 👤 Unassigned

### Sprint 2

Batch Data Analysis and Visualization Team

Taskboard Backlog Capacity Analytics

development team Person: All

May 1 - May 7  
3 work days remaining

To Do	Doing	Done
16 User Access and Security ● To Do 👤 Unassigned	17 Role-Based Access Control ● To Do 👤 Unassigned	18 Secure Data Handling ● To Do 👤 Unassigned
13 Column Operations ● To Do 👤 Unassigned	14 Change Data Types of Columns ● To Do 👤 Unassigned	15 Apply Bulk Transformations ● To Do 👤 Unassigned

## Sprint 3

Batch Data Analysis and Visualization Team

Taskboard Backlog Capacity Analytics

development team Person: All

May 1 - May 7 3 work days remaining

To Do	Doing	Done
16 User Access and Security ● To Do 👤 Unassigned	18 Secure Data Handling ● To Do 👤 Unassigned	
17 Role-Based Access Control ● To Do 👤 Unassigned		
13 Column Operations ● To Do 👤 Unassigned	14 Change Data Types of Columns ● To Do 👤 Unassigned	15 Apply Bulk Transformations ● To Do 👤 Unassigned
11 Cleaning Engine ● To Do 👤 Unassigned	12 Remove Duplicate Records ● To Do 👤 Unassigned	

## Sprint 4

Batch Data Analysis and Visualization Team

Taskboard Backlog Capacity Analytics

development team Person: All

May 1 - May 7 3 work days remaining

To Do	Doing	Done
16 User Access and Security ● To Do 👤 Unassigned	18 Secure Data Handling ● To Do 👤 Unassigned	
17 Role-Based Access Control ● To Do 👤 Unassigned		
13 Column Operations ● To Do 👤 Unassigned	14 Change Data Types of Columns ● To Do 👤 Unassigned	15 Apply Bulk Transformations ● To Do 👤 Unassigned
11 Cleaning Engine ● To Do 👤 Unassigned	12 Remove Duplicate Records ● To Do 👤 Unassigned	
8 Handle Large File Uploads ● To Do 👤 Unassigned	10 Upload via Drag-and-Drop ● To Do 👤 Unassigned	
9 Manage Uploaded Files ● To Do 👤 Unassigned		

**Result:**

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

**EXP NO: 5**

## **POKER ESTIMATION**

### **Aim:**

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

### **Poker Estimation**

The screenshot shows the Azure DevOps interface for creating a work item. The left sidebar is titled 'Work items' and includes options like Boards, Backlogs, Sprints, Queries, Delivery Plans, Analytics views, Repos, Pipelines, Test Plans, Artifacts, and Project settings. The main area is titled 'Work Items' and shows a 'NEW EPIC' card for 'User Access and Security'. The card has fields for State (To Do), Reason (Added to backlog), Area (Batch Data Analysis and Visualization), Iteration (Batch Data Analysis and Visualization\development team), and a 'Save' button. Below the card are sections for 'Description' (with placeholder 'Click to add Description.'), 'Planning' (Priority 2, Start Date, Target Date), and 'Related Work' (Add link). A comment section at the bottom allows users to add comments using Markdown syntax.

### **Result:**

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

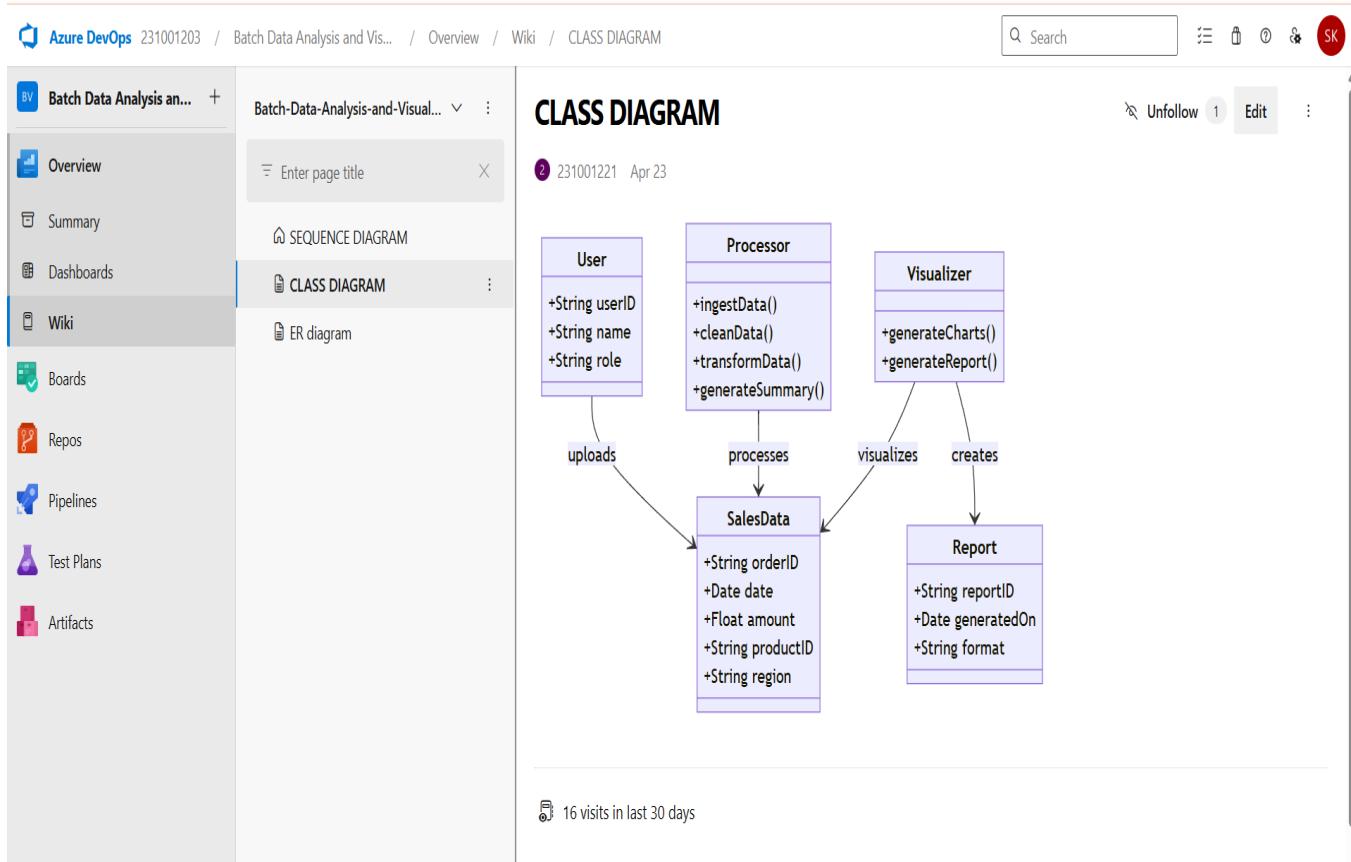
**EXP NO: 6**

## **DESIGNING CLASS AND SEQUENCE DIAGRAMS FOR PROJECT ARCHITECTURE**

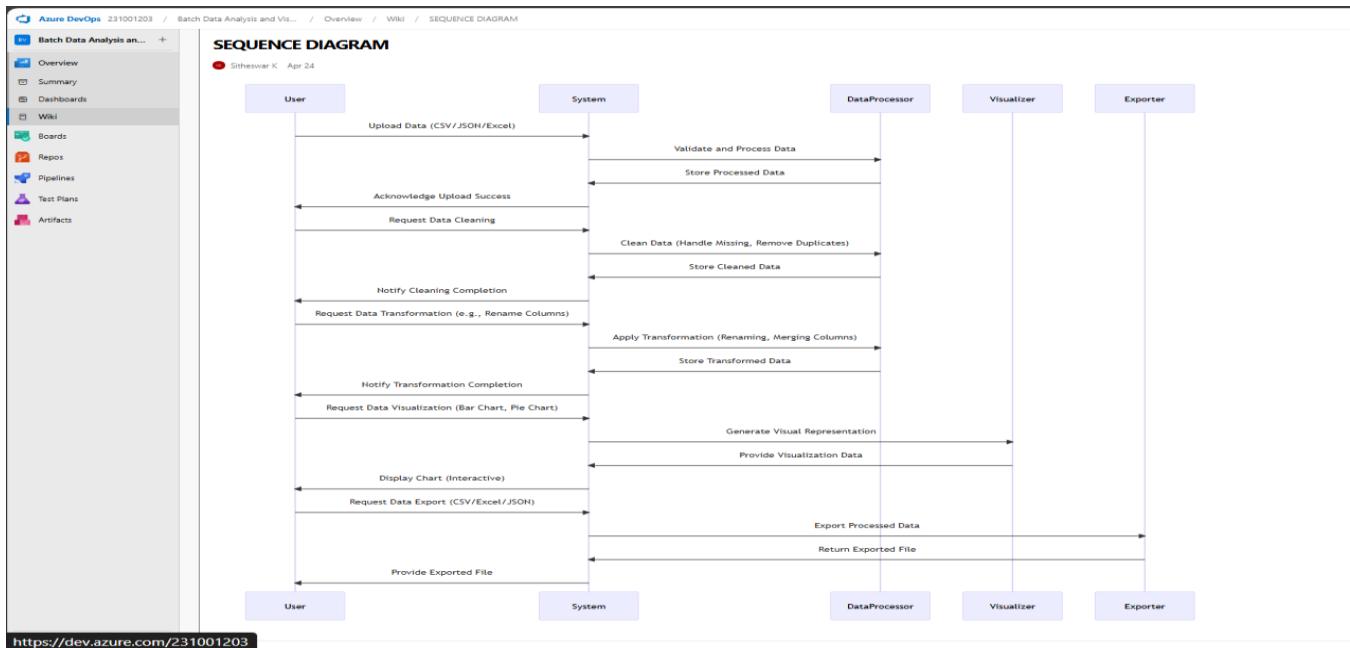
### **Aim:**

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 Music Playlist Batch Creator.

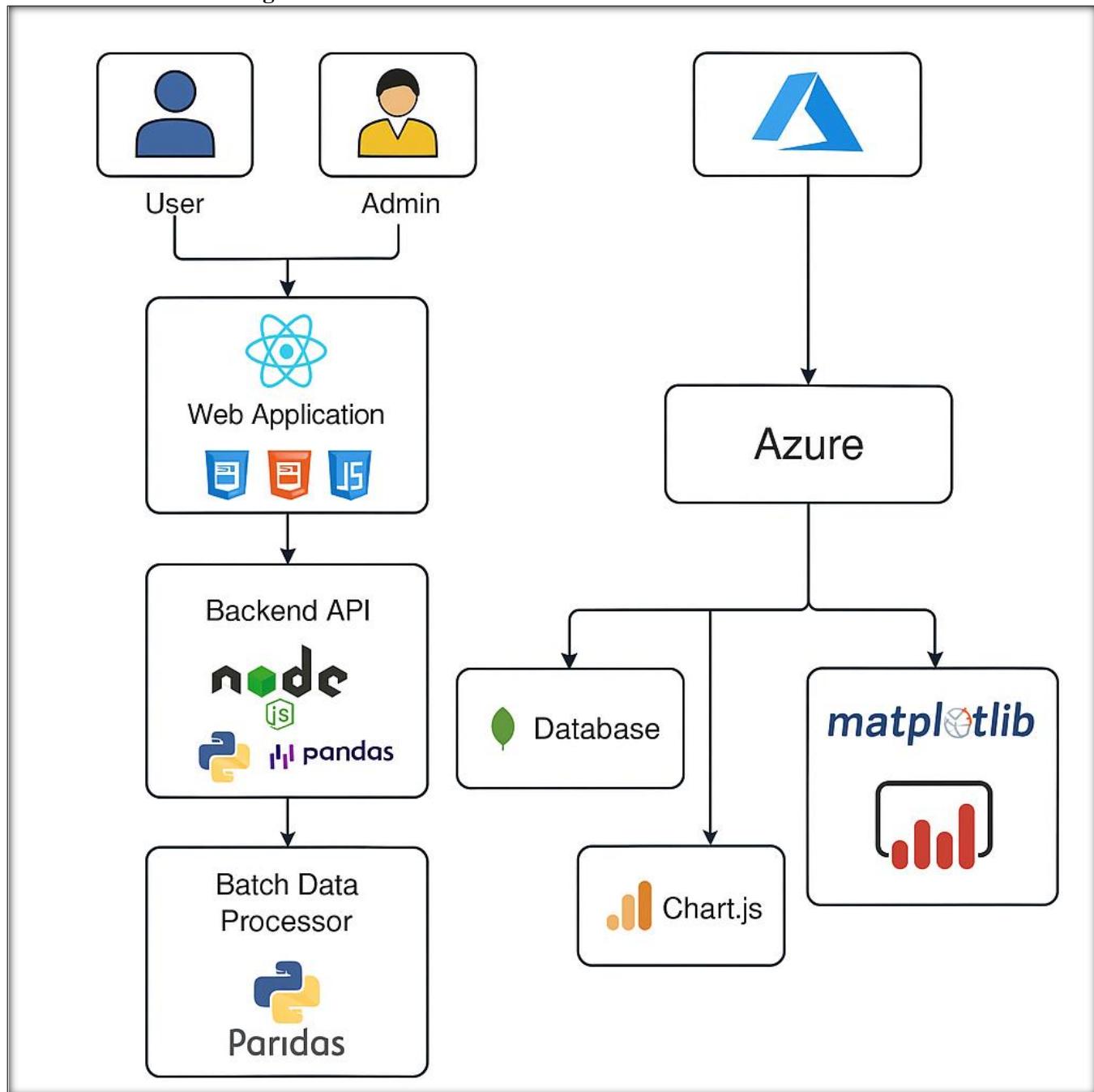
**EXP NO: 7**

## **DESIGNING ARCHITECTURAL AND ER DIAGRAMS FOR PROJECT STRUCTURE**

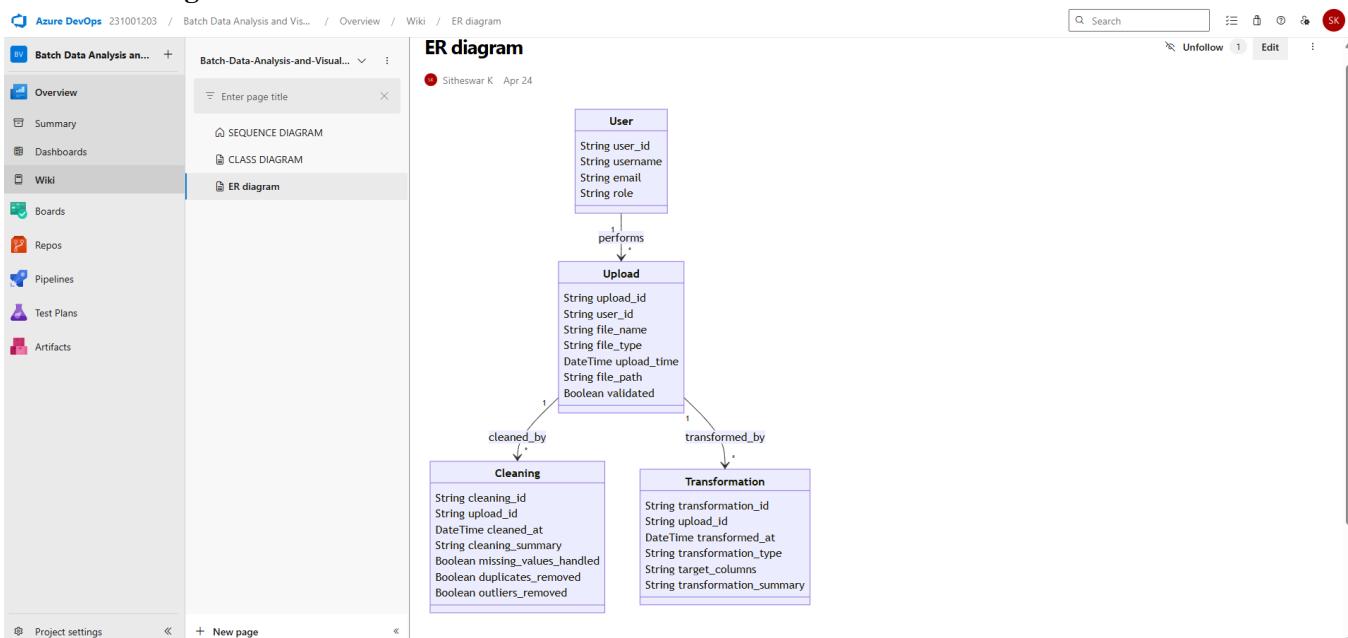
### **Aim:**

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**

#### **1.New test plan**

The screenshot shows the Azure DevOps interface for creating a new test plan. The left sidebar is titled 'Batch Data Analysis an...' and includes options like Overview, Boards, Repos, Pipelines, Test Plans (which is selected), Test plans, Progress report, Parameters, Configurations, Runs, Artifacts, and Project settings. The main area is titled 'New Test Plan' and contains three input fields: 'Name \*' with the value 'Batch Data Analysis and Visualization - Test Plan', 'Area Path \*' with the value 'Batch Data Analysis and Visualization', and 'Iteration \*' with the value 'Batch Data Analysis and Visualization\development team'. Below these fields are two buttons: 'Create' (highlighted in blue) and 'Cancel'.

## 2. Test suite

The screenshot shows the Azure DevOps Test Plans interface. On the left, there's a sidebar with various project management options like Overview, Boards, Repos, Pipelines, Test Plans, and Artifacts. The 'Test Plans' section is currently selected. In the main area, a 'Batch Data Analysis and Visualization - Test Plan (ID: 25)' is displayed. A context menu is open over the 'Test Suites' section, listing options such as 'New Suite', 'Assign configurations', 'Export', 'Assign testers to run all tests', and 'Import test suites'. Below this, the 'Test Cases (3 items)' section is visible, showing three entries: 'Static suite', 'Requirement based suite', and 'Query based suite'. The 'Requirement based suite' entry has a small 'is with progress indicator' icon next to it.

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

#### TC02 – Upload with Unsupported Format

- **Action:**
  - Try uploading an XML file.
- **Expected:**
  - Error: "Unsupported file format."
- **Type:** Error Path

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

### **TC03 – Display Uploaded Data**

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

### **TC04 – View Without Upload**

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

## **Test Suite: TS03 - Visualization (ID: 303)**

### **TC05 – Generate Chart from Data**

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

### **TC06 – Chart Generation with Missing Input**

- **Action:**
  - Upload data but don't select any field.
  - 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:**
  - Login as admin.
  - Go to "User Management".
- **Expected:**
  - List of registered users appears.
- **Type:** Happy Path

### **TC08 – Non-Admin Tries Admin Access**

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

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

### TC09 – Download Data as CSV

- **Action:**
  - After analysis, click “Download CSV”.
- **Expected:**
  - File downloads successfully.
- **Type:** Happy Path

### TC10 – Download Without Analysis

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

## Test Cases

Azure DevOps 231001203 / Batch Data Analysis and Vis... / Test Plans / Batch Data Analysis and Vis...

NEW TEST CASE \*

Batch Data Analysis and Visualization

Sitheswar K 0 Comments Add Tag

Design Area Batch Data Analysis and Visualization

New Reason Iteration Batch Data Analysis and Visualization\development team

Steps

Click or type here to add a step

Save and Close

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.

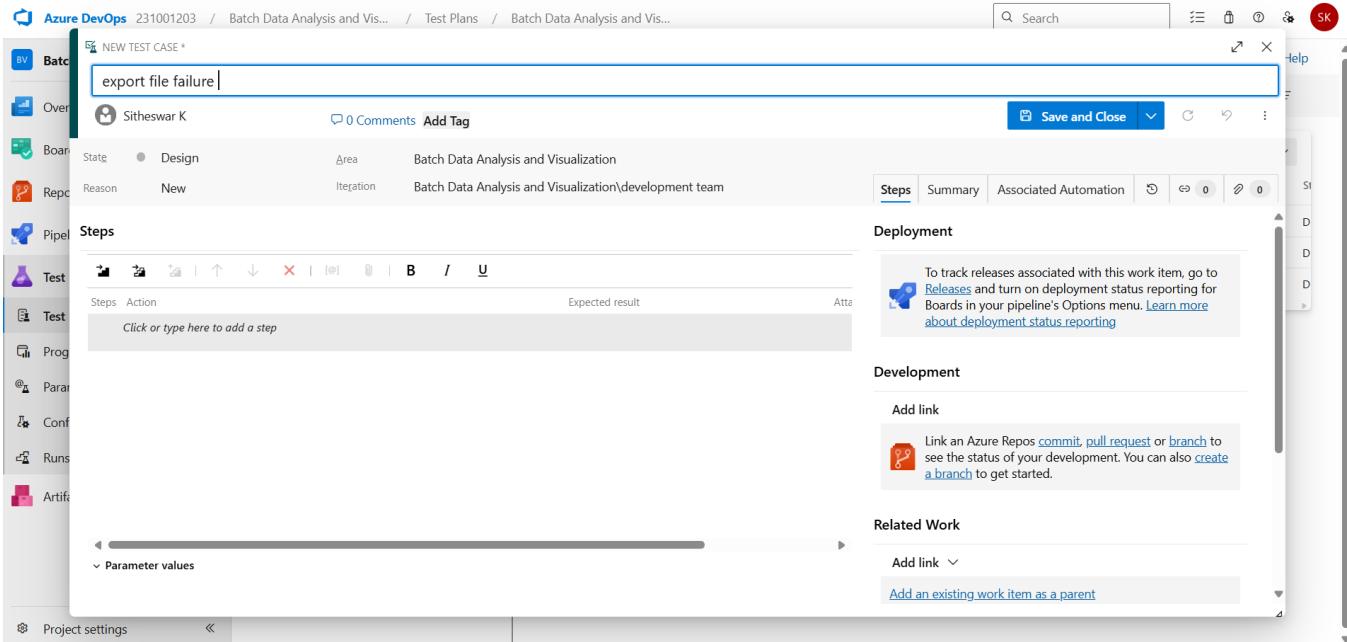
Related Work

Add link

Add an existing work item as a parent

Parameter values

Project settings



Azure DevOps 231001203 / Batch Data Analysis and Vis... / Test Plans / Batch Data Analysis and Vis...

TEST CASE 28

Visualization Dashboard

Sitheswar K 0 Comments Add Tag

Design Area Batch Data Analysis and Visualization

New Reason Iteration Batch Data Analysis and Visualization\development team

Steps

Click or type here to add a step

Save and Close

Follow

Updated by Sitheswar K: 4m ago

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.

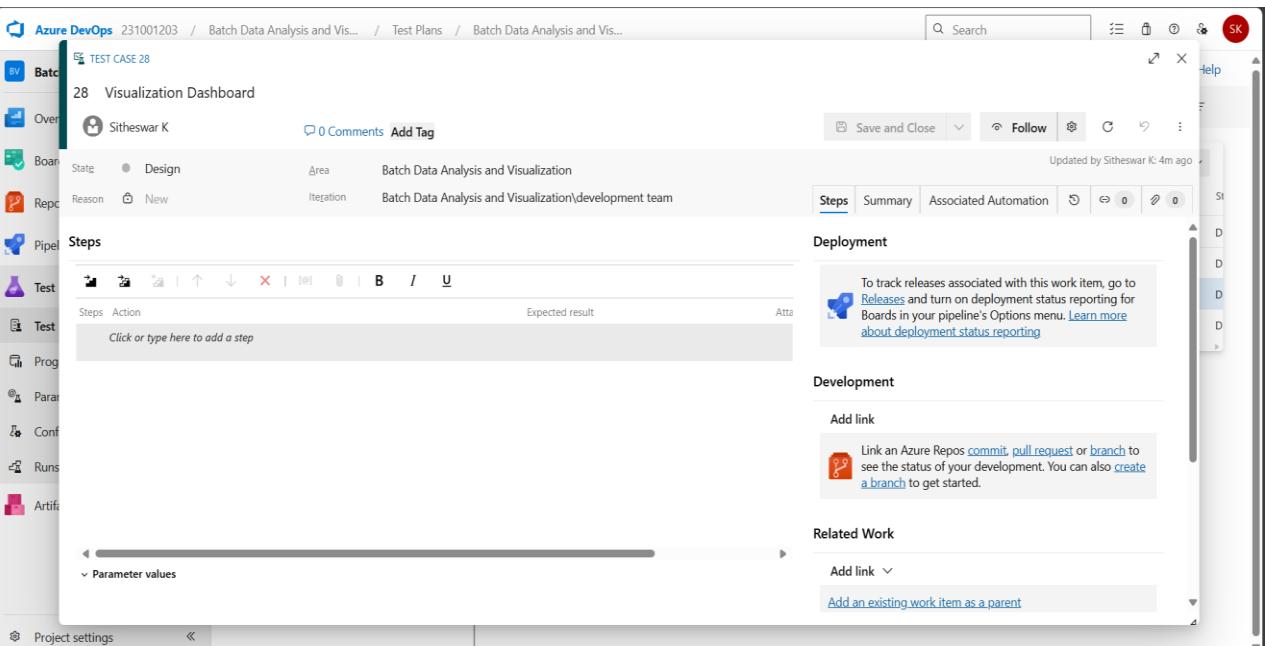
Related Work

Add link

Add an existing work item as a parent

Parameter values

Project settings



### 3. Installation of test

The screenshot shows the Microsoft Edge Add-ons page. At the top, there is a navigation bar with links for Microsoft, Edge Add-ons, Discover, Extensions, and Themes. A search bar is located at the top right. Below the navigation, the "Test & Feedback" extension is displayed. It has a purple icon featuring a flask and a compass. The extension name is "Test & Feedback" and it is categorized as an "Extension | Microsoft Corporation". It has a rating of 4 stars from 28 reviews and over 100,000 users. The developer tools category is also listed. To the right of the extension details, there is a "Get" button and a note that it is "Compatible with your browser". Below the extension details, there is a preview image showing a screenshot of a browser window with a toolbar and a callout annotation. To the right of the preview, there are sections for "Details", "Terms", "Developer", and a "Report abuse" button. The "Details" section includes the version (1.0.256.1), update date (May 6, 2025), and language availability (Available in 1 language). The "Developer" section lists "More add-ons from Microsoft Corporation (917)".

#### Description

Now everyone on the team can own quality. Capture findings, create issues, and collaborate with the team, directly from the browser.  
Test & Feedback - Now everyone on the team can own quality. Capture findings, create issues, and collaborate with the team, directly from the browser.  
...

Microsoft | Edge Add-ons Discover Extensions Themes

Search extensions, themes, and more

**Test & Feedback**

Extension | Microsoft Corporation ★★★★☆ (28) | 100,000+ Users | Developer tools

**Remove** Add-on already installed on your browser



**Details**  
Version 1.0.256.1  
Updated May 6, 2025  
Available in 1 language

**Terms**  
[Privacy policy](#)

**Developer**  
More add-ons from Microsoft Corporation (917)

**Description**

Now everyone on the team can own quality. Capture findings, create issues, and collaborate with the team, directly from the browser.

Test & Feedback - Now everyone on the team can own quality. Capture findings, create issues, and collaborate with the team, directly from the browser.

Report abuse

## Test and feedback

Showing it as an extension

Microsoft | Edge Add-ons Discover Extensions Themes

Search extensions, themes, and more

**Test & Feedback**

Extension | Microsoft Corporation ★★★★☆ (28) | 100,000+ Users | Developer tools



**Extensions**

- AdBlock — block ads across the web
- AdGuard AdBlocker
- McAfee® WebAdvisor
- React Developer Tools
- Test & Feedback**
- Manage extensions

Get extensions for Microsoft Edge

Version 1.0.256.1  
Updated May 6, 2025  
Available in 1 language

**Terms**  
[Privacy policy](#)

**Developer**  
More add-ons from Microsoft Corporation (917)

**Description**

Now everyone on the team can own quality. Capture findings, create issues, and collaborate with the team, directly from the browser.

Test & Feedback - Now everyone on the team can own quality. Capture findings, create issues, and collaborate with the team, directly from the browser.

Report abuse

#### 4. Running the test cases

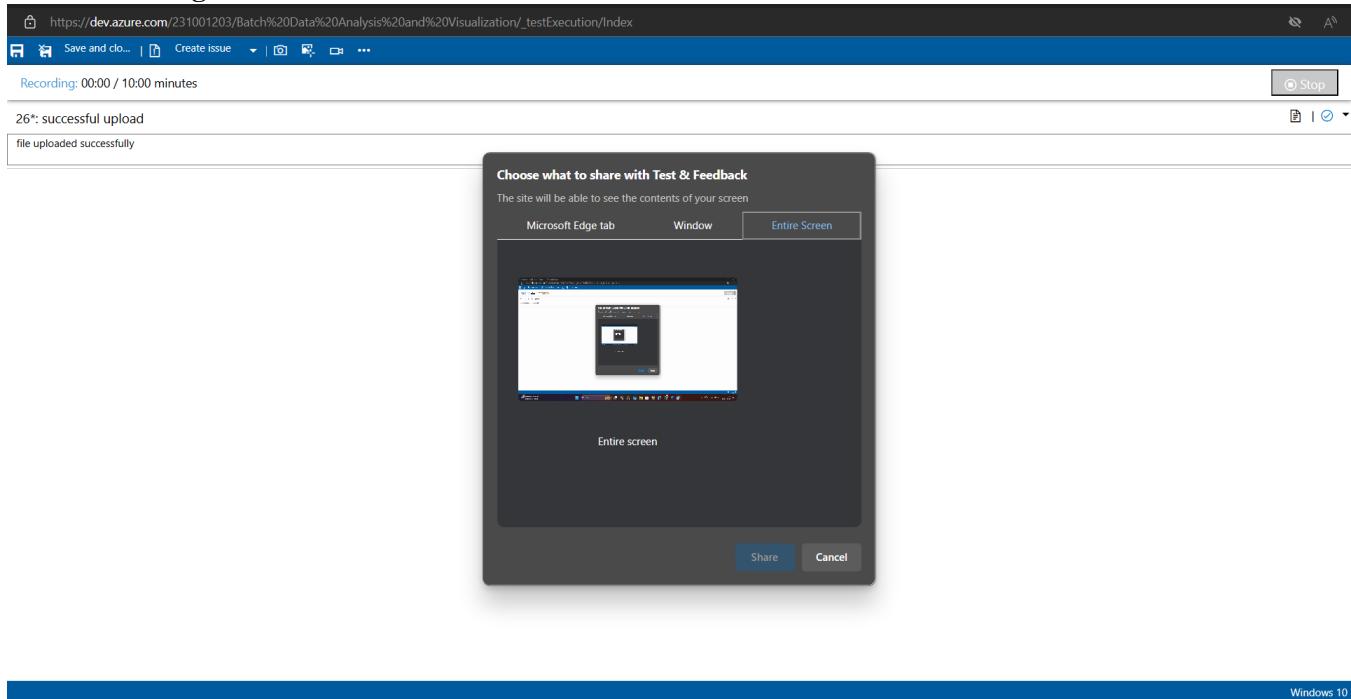
The screenshot shows the Azure DevOps Test Plans interface. On the left, there's a sidebar with options like Overview, Boards, Repos, Pipelines, Test Plans, Test plans, Progress report, Parameters, Configurations, Runs, and Artifacts. The 'Test plans' option is selected. In the main area, a 'Batch Data Analysis and Visualization - Test Plan (ID: 25)' is displayed. The 'Execute' tab is selected. A context menu is open over a row in the 'Test Points (4 items)' table. The table has columns for Title, Outcome, Order, and Test Case Id. The visible rows are:

Title	Outcome	Order	Test Case Id
✓ successful upload	Active	1	26
☐ handle large file uploads with progress indicator	Active	2	27
☐ Visualization Dashboard	Active	3	28
☐ export file failure	Run	Run for web application	29

The context menu options include: View execution history, Mark Outcome, Run, Reset test to active, Edit test case, Assign tester, Run for desktop application, and Run with options.

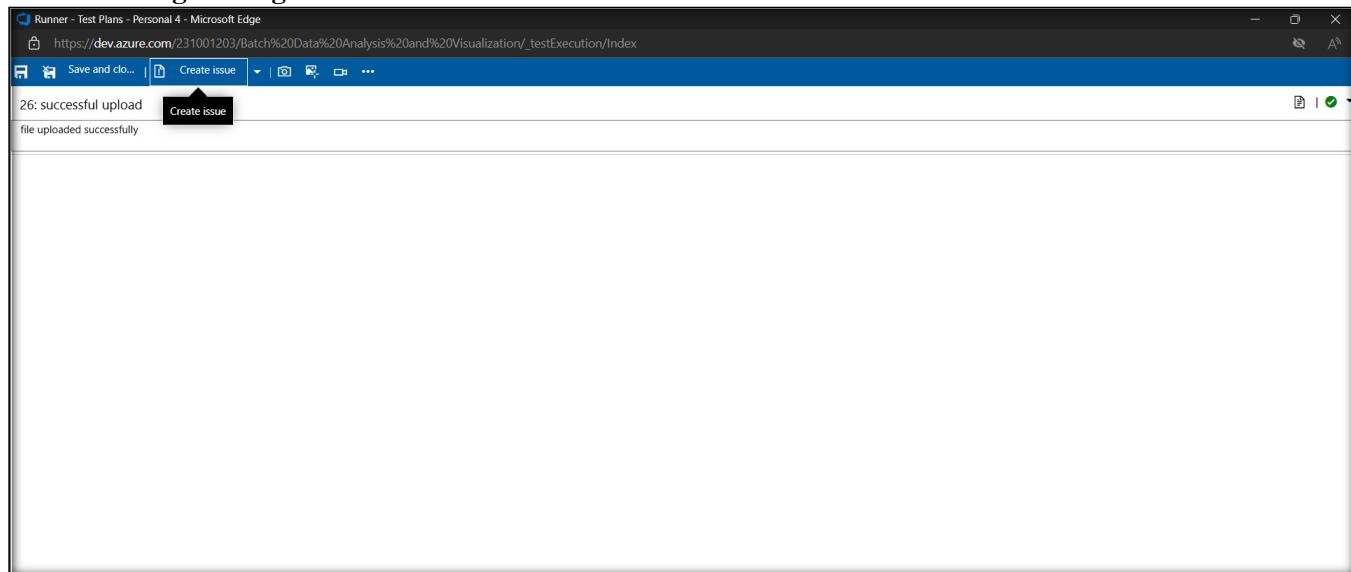
The screenshot shows a Microsoft Edge browser window titled 'Runner - Test Plans - Personal 4 - Microsoft Edge'. The URL is https://dev.azure.com/231001203/Batch%20Data%20Analysis%20and%20Visualization/\_testExecution/Index. The page displays the results of a test execution. At the top, it says '26\*: successful upload'. Below that, a message says 'file uploaded successfully'. The rest of the page is blank.

## 5. Recording the test case



Windows 10

## 6. Creating the bug



https://dev.azure.com/231001203/Batch%20Data%20Analysis%20and%20Visualization/\_testExecution/Index

Save and close | Create issue | ...

26: successful upload

file uploaded

NEW ISSUE \*

file is not uploaded due to poor network

Unassigned | 0 comments | Add tag | Save & Close | ...

Description

5/18/2025 12:00 PM Bug filed on "successful upload"

Comments: file uploaded successfully  
Test Configuration: Windows 10

Diagnostic Data Adapter  
[ScreenRecording-2025-05-18T11-54-56.040Z.webm](#)

Planning

Priority: 2  
Effort

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

+ Add link  
Add an existing work item as a parent

Discussion

Add a comment. Use # to link a work item, ! to link a pull request, or @ to mention a person.

Windows 10

Azure DevOps 231001203 / Batch Data Analysis and Vis... / Test Plans / Runs

Search | ...

BV Batch Data Analysis

OVERVIEW | BOARDS | REPOS | PIPELINES | TEST PLANS | RUNS | ARTIFACTS

NEW ISSUE \*

successful upload Passed

Unassigned | 0 comments | Add tag | Save & Close | ...

Description

Test: **successful upload**  
Priority: 2  
Test file: not available  
Machine: not available  
Tested build: not available  
Error message: not available  
Stack trace: not available

Planning

Priority: 2  
Effort

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

+ Add link  
Add an existing work item as a parent

Discussion

Add a comment. Use # to link a work item, ! to link a pull request, or @ to mention a person.

No test steps

Comments

Project settings | <<

Last update just now

## 7. Test case results

The screenshot shows the Azure DevOps interface for 'Batch Data Analysis and Visualization' under 'Test Plans'. The left sidebar includes 'Overview', 'Boards', 'Repos', 'Pipelines', 'Test Plans' (selected), 'Test plans', 'Progress report', 'Parameters', 'Configurations', 'Runs', and 'Artifacts'. The main area displays 'Batch Data Analysis and Visualization' with a 'Test Suites' section containing 'Batch Data Analysis and Visualization...'. The 'Execute' tab is selected, showing 'Test Points (4 items)' with one point named 'successful upload' marked as 'Passed' just now by Sitheswar K. A link 'Open execution history for current test point' is present at the bottom.

## 8. Test report summary

The screenshot shows the Azure DevOps interface for 'Batch Data Analysis and Visualization' under 'Work items'. The left sidebar includes 'Overview', 'Boards', 'Work items' (selected), 'Boards', 'Backlogs', 'Sprints', 'Queries', 'Delivery Plans', and 'Analytics views'. The main area shows a work item titled 'ISSUE 30: file is not uploaded due to poor network'. The 'Description' field contains the text '5/18/2025 12:00 PM Bug filed on "successful upload"'. The 'Comments' field says 'file uploaded successfully' and 'Test Configuration: Windows 10'. The 'Deployment' section notes '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.' The 'Development' section includes a 'Related Work' link.

- Assigning bug to the developer and changing state

## 9. Progress report

Screenshot of the Azure DevOps Test Plans Progress report page for the "Batch Data Analysis and Visualization - Test Plan".

The left sidebar shows the project navigation with "Test Plans" selected. The main content area displays the "Progress report" for the selected test plan.

**Summary:**

- 1 Test plans
- 4 Test points
- 1 (1 / 4) Test points run (25% Run)
- 100% (1 / 1) Pass rate (1 Passed)

**Outcome trend:** Last 14 Days

**Details:**

Music Playlist Batch Creator – Test Plan (+1) Test Suites Outcome Configuration Tester Priority Assigned To

**Summary:**

- 2 Test plans
- 28 Test points
- 28 (28 / 28) Test points run (100% Run)
- 100% (28 / 28) Pass rate (28 Passed)

**Outcome trend:** Last 14 Days

**Details:**

Test plan name	Test points	Run %	Passed %	Failed %	Not run count
Music Playlist Batch Creator Team_Stories_Integration	14	100	100	0	0
Music Playlist Batch Creator – Test Plan	14	100	100	0	0

## 10. Changing the test template

The screenshot shows the Azure DevOps Settings page for organization 231001203. The left sidebar includes sections for General (Overview, Projects, Users, Billing, Global notifications, Usage, Extensions, Microsoft Entra), Security (Security overview, Policies, Permissions), Boards (Process), and Pipelines. The main content area is titled 'All processes' and lists four templates: 'Basic (default)', 'Agile' (selected), 'Scrum', and 'CMMI'. The 'Agile' template is described as flexible for most teams using Agile planning methods.

Name	Description	Team proj...
Basic (default)	This template is flexible for any process and great for teams getting started with A...	1
Agile	This template is flexible and will work great for most teams using Agile planning m...	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 impro...	0

Azure DevOps 231001203 / Settings / Process

Organization Settings  
231001203

Search Settings

General

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

Security

- Security overview
- Policies
- Permissions

Boards

- Process
- Pipelines

All processes

Processes Fields

Help Filter by process name

Name	Description	Team projects
Basic (default)	This template is flexible for any process and great for teams getting started with A...	1
Agile	This template is flexible and will work great for most teams using Agile planning m...	1
231001203 agile		0
agile plus		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 impro...	0

Azure DevOps 231001203 / Settings / Process

Organization Settings  
231001203

Search Settings

General

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

Security

- Security overview
- Policies
- Permissions

Boards

- Process
- Pipelines

All processes > Agile

Work item types Backlog levels Projects

Name Description

231001203 agile ...

Change the project process

Select the project process to change the target process.

Select a target process

Save

## 11. View the new test case template

The screenshot shows two windows from the Azure DevOps interface. On the left, the 'Organization Settings' page is displayed, showing sections for General, Security, Boards, and Process. The 'Process' section is currently selected. On the right, a modal window titled 'Add a field to Bug' is open under the 'Definition' tab. It allows adding a field to store custom, queryable data. Two options are available: 'Use an existing field' (selected) with a field named 'Acceptance Criteria', and 'Create a field' (radio button selected) with a name 'type', type 'Text (single line)', and a description 'Optional provide a description for the field'. Below the modal, the 'All processes' view shows an inherited process named '231001203 agile' under the 'Agile' category.

This screenshot shows the 'All processes' view in the Azure DevOps settings. A message at the top states 'System processes cannot be customized. To add customization create an inherited process.' The view lists work item types, backlog levels, and projects. Under 'Projects', the '231001203 agile' process is listed. The left sidebar shows the 'Organization Settings' page with the 'Process' section selected.

The screenshot shows the Azure DevOps Settings - Process page. The left sidebar is titled "Organization Settings" and includes sections for General (Overview, Projects, Users, Billing, Global notifications, Usage, Extensions, Microsoft Entra), Security (Security overview, Policies, Permissions), and Boards (Process). The main content area is titled "All processes > 231001203 alige > Test Case". It displays a "Layout" tab with options for "New field", "New group", "New page", "Get extensions", and navigation buttons for "Steps", "Summary", "Associated Aut...", "Recent test results", "Deployment", "Development", "Related Work", and "Status". A large "Add a field ..." box is visible on the right side.

### 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	<b>LOAD TESTING AND PERFORMANCE TESTING</b>
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**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:

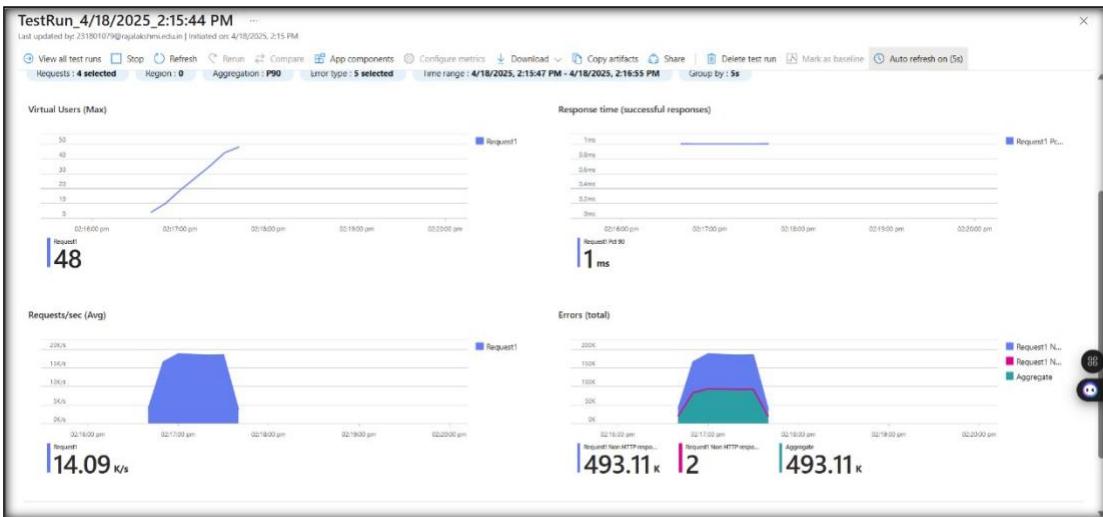
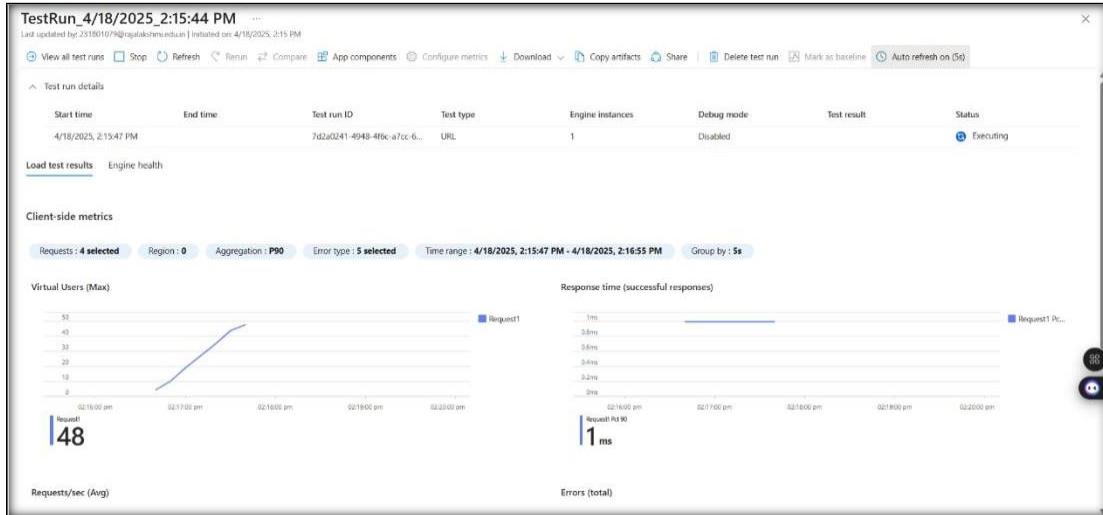
1. Sign in to Azure Portal  
Go to <https://portal.azure.com> and log in.
2. Create the Resource
  - o Go to *Create a resource* → Search for “Azure Load Testing”.
  - o Select Azure Load Testing and click Create.
3. Fill in the Configuration Details
  - o *Subscription*: Choose your Azure subscription.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

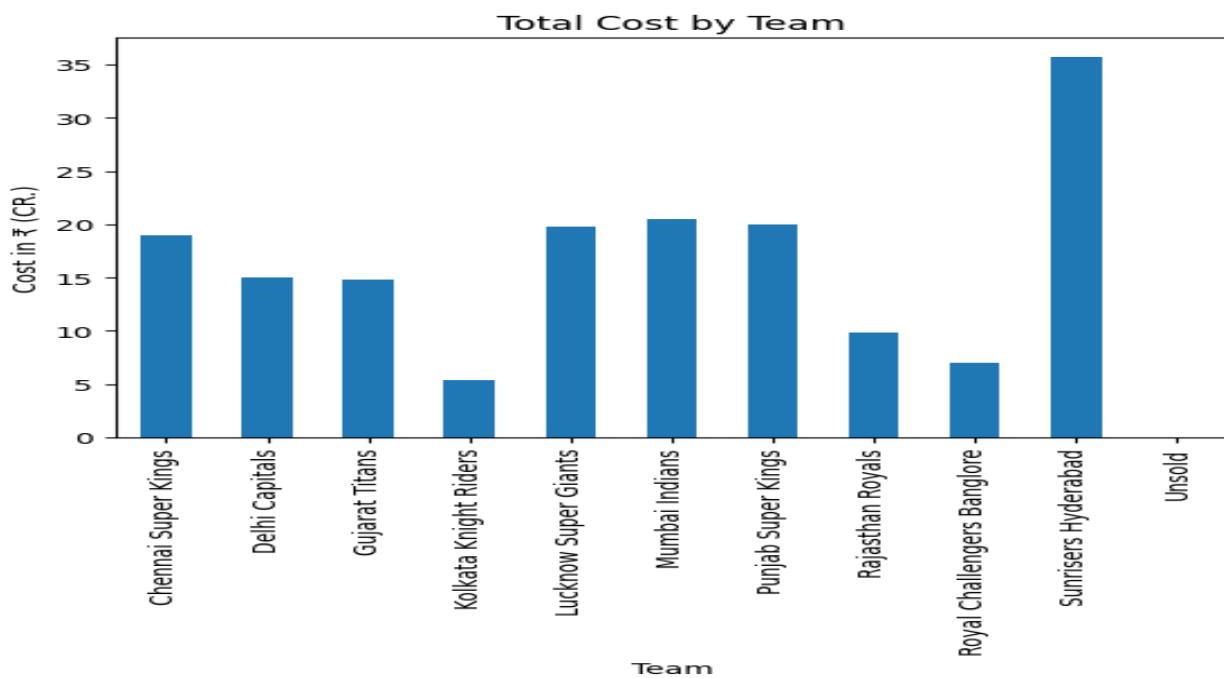
**Steps to Create and Run a Load Test:**

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 → 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**

The screenshot shows a GitHub repository page for 'batch-data-analysis-and-visualisation'. The repository has 1 branch and 0 tags. The main branch contains several files and folders:

- output images
- IPL\_Squad\_2023\_Auction\_Dataset.csv
- README.md
- app.py
- class diagram.pdf
- er diagram.pdf
- sequence diagram.pdf

The README file contains the following text:

The Batch Data Analysis and Visualization project is designed to streamline the process of uploading, cleaning, transforming, analyzing, and visualizing large batches of data. This tool serves both data analysts and business professionals to efficiently manage data, gain insights, and create reports. The project also includes a command-line interface for automating data processing tasks.

On the right side of the page, there are sections for About, Releases, Packages, and Languages. The Languages section shows Python as the primary language at 100.0%.

### **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.