

EXP NO: 1

AZURE DEVOPS ENVIRONMENT SETUP

Aim:

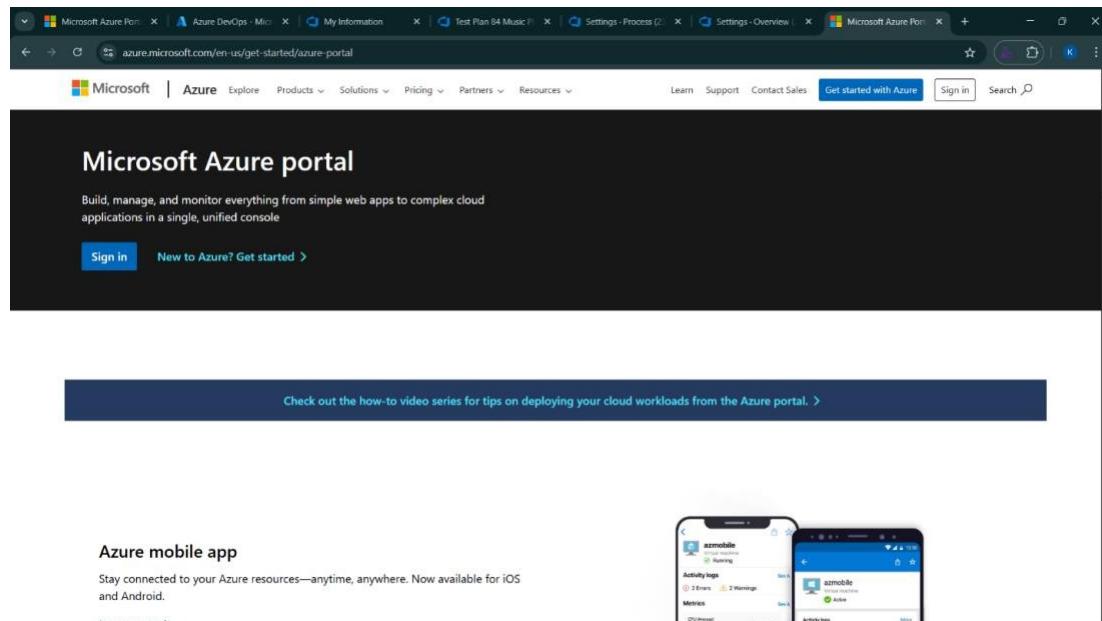
To set up and access the Azure DevOps environment by creating an organization through the Azure portal.

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>



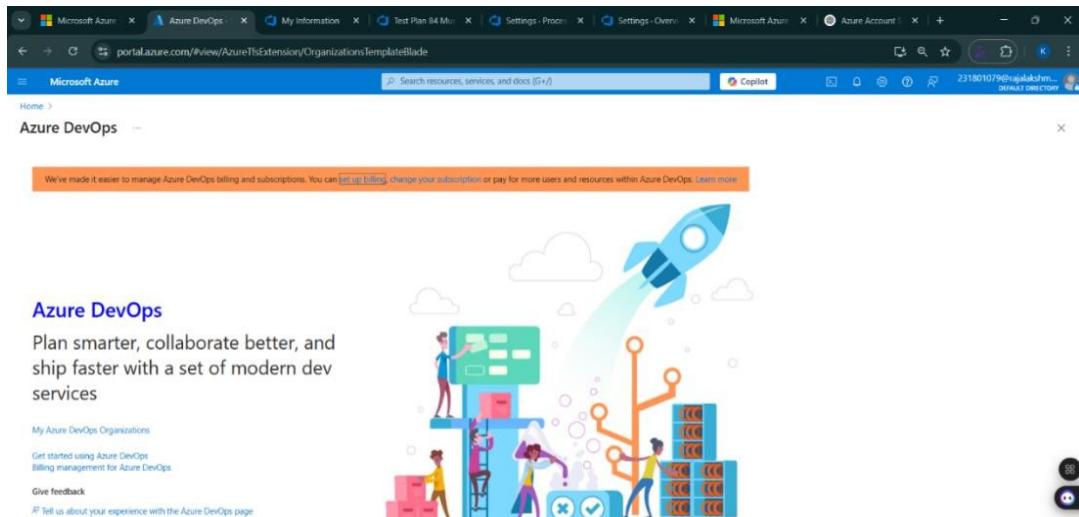
2. Azure home page

The screenshot shows the Microsoft Azure home page. At the top, there's a search bar and a Copilot button. Below the header, there's a section for 'Azure services' with icons for creating a resource, Azure DevOps organizations, Subscriptions, Dashboard hub, Resource groups, Azure Load Testing, Quickstart Center, Azure AI services, Kubernetes services, and More services. A 'Recent' tab under 'Resources' shows two items: 'Music' (Azure Load Testing) and 'Music_playlist_Batch_Creator' (Resource group), both last viewed 3 days ago. There's also a 'See all' link. The 'Navigate' section includes links for Subscriptions, Resource groups, All resources, and Dashboard. The 'Tools' section features Microsoft Learn, Azure Monitor, Microsoft Defender for Cloud, and Cost Management. The 'Useful links' section includes a link to the Azure mobile app.

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

The screenshot shows the Microsoft Azure home page again, but with a search bar at the top containing the text 'DevOps'. The rest of the interface is identical to the previous screenshot, showing the Azure services, resources, tools, and useful links sections.

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.

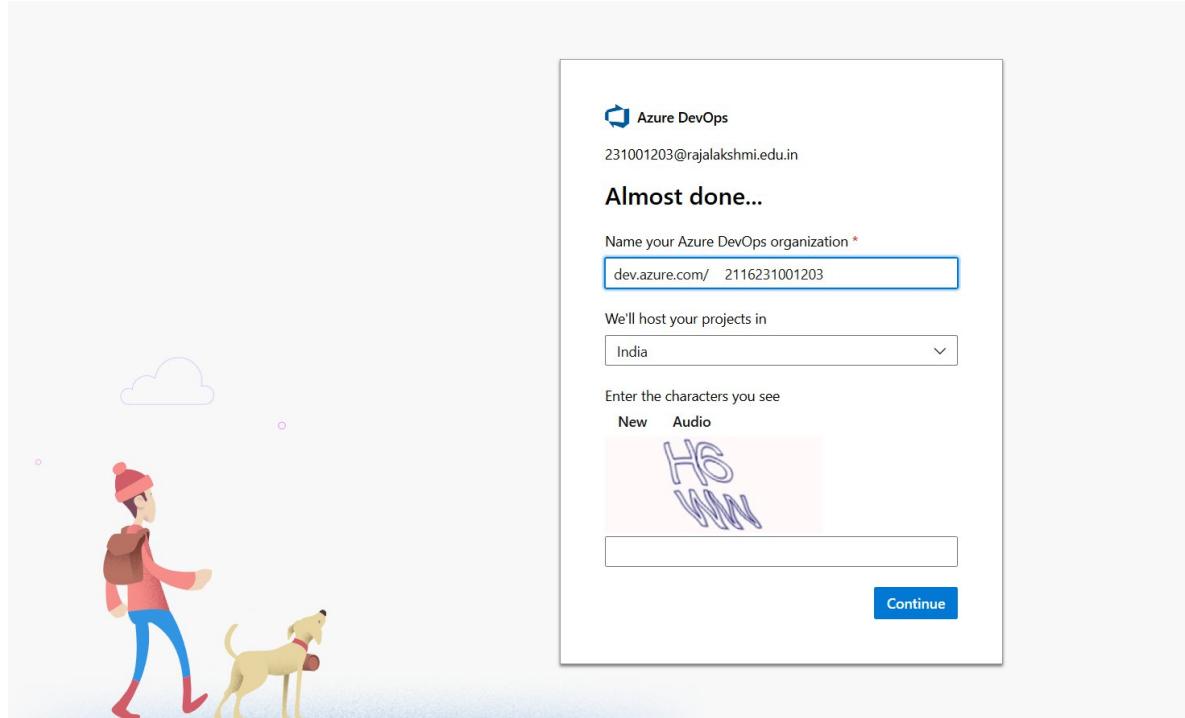
EXP NO: 2

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 Azure DevOps Organization Home page. At the top, there's a navigation bar with icons for back, forward, refresh, and a search bar containing 'aex.dev.azure.com/me?tab=home&mkt=en-US'. To the right of the search bar are links for 'Verify it's you' and a three-dot menu. Below the navigation bar, the Microsoft logo is on the left, and the user's name 'Shreekumaran S' with a 'Sign out' link is on the right. The main content area has a large circular profile picture placeholder with 'SS' in white. To the right of the profile picture, the user's name 'Shreekumaran S' and email '231001195@rajalakshmi.edu.in' are listed, along with an 'Edit profile' button. Below this, location information 'India' and email '231001195@rajalakshmi.edu.in' are shown. A horizontal line separates this from the 'Visual Studio Dev Essentials' section, which contains a brief description and a 'Use your benefits' button. On the right side of the page, the title 'Azure DevOps Organizations' is at the top, followed by a 'Create new organization' button. Below this, a section for the organization 'dev.azure.com/231001203 (Member)' is shown, with a 'Projects' list containing 'Batch Data Analysis and Visualization' and an 'Actions' menu with options like 'Open in Visual Studio', 'Manage security', 'Browse extensions', and 'Leave'.

4. Project dashboard

The screenshot shows the Azure DevOps project dashboard for the 'Batch Data Analysis and Visualization' project. The left sidebar contains navigation links for Overview, Summary, Dashboards, Wiki, Boards, Repos, Pipelines, Test Plans, and Artifacts. 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 for analysts and business intelligence teams. Key features mentioned include Data Upload and Processing, Data Cleaning and Preprocessing (with handling of missing values), Duplicate Removal, and Outlier Detection. To the right, there are two cards: 'Project stats' showing 0 work items created and 0 work items completed over the last 7 days, and 'Members' showing 6 team members represented by colored circles (2, sk, 2, 2, 2, ss). The URL in the browser bar is <https://dev.azure.com/231001203/Batch%20Data%20Analysis%20and%20Visualization>.

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 Boards interface. The left sidebar includes options like Overview, Boards, Work items, Boards, Backlogs, Sprints, Queries, Delivery Plans, Analytics views, Repos, Pipelines, Test Plans, Artifacts, and Project settings. The main area displays a backlog board for the 'Batch Data Analysis and Visualization Team'. The backlog table has columns for Order, ID, Title, Assigned To, State, and Tags. Tasks include '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 planning section on the right shows a sprint named 'Sprint_1' with 5 planned effort days and 7 tasks assigned. A green circular icon with 'SS' is visible in the top right corner.

The screenshot shows the Microsoft sign-in page. It features the Microsoft logo and a large green circular profile picture with 'SS'. The user's name is 'Shreekumaran' and their email is '231001195@rajalakshmi.edu.in'. There are links for 'My Microsoft account' and 'Switch directory'. Below the profile, there is a 'Sign in with a different account' button with a person icon. The left sidebar includes 'Tags' and other navigation options. A green circular icon with 'SS' is also present here.

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'. The backlog table lists several tasks with their IDs, titles, assignees, and states. A planning sidebar on the right shows a timeline from 5/1/2025 to 5/7/2025, indicating work items scheduled for development team members. A sprint named 'Sprint 1' is also visible.

Order	ID	Title	Assigned To	State
1	13	Column Operations		To Do
	14	Change Data Types of Columns		To Do
	15	Apply Bulk Transformations		To Do
2	11	Cleaning Engine		To Do
	12	Remove Duplicate Records		To Do
3	8	Handle Large File Uploads		To Do
	9	Manage Uploaded Files		To Do
	10	Upload via Drag-and-Drop		To Do

1. Fill in Epics

The screenshot shows the Azure DevOps Work Items view for creating a new epic. The form includes fields for State (To Do), Area (Batch Data Analysis and Visualization), Reason (Added to backlog), Iteration (Batch Data Analysis and Visualization\development team), and a Description section with a placeholder 'Click to add Description.' A planning section on the right allows setting Priority (2), Start Date, and Target Date.

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

Collapse all

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

May 1 - May 7
3 work days remaining

+ New Work Item Column Options

Sprint 2

Batch Data Analysis and Visualization Team

Taskboard Backlog Capacity Analytics

development team Person: All

Collapse all

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

May 1 - May 7
3 work days remaining

+ New Work Item Column Options

Sprint 3

Batch Data Analysis and Visualization Team 88

Taskboard Backlog Capacity Analytics

development team Person: All

May 1 - May 7
3 work days remaining

The scrum board displays three columns: To Do, Doing, and Done. The To Do column contains six tasks, each with a checkbox status and a 'Unassigned' label. The Doing column contains one task with a checked checkbox and a 'Unassigned' label. The Done column is empty.

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
11 Cleaning Engine To Do Unassigned	12 Remove Duplicate Records To Do Unassigned	

Sprint 4

Batch Data Analysis and Visualization Team 88

Taskboard Backlog Capacity Analytics

development team Person: All

May 1 - May 7
3 work days remaining

The scrum board displays three columns: To Do, Doing, and Done. The To Do column contains six tasks, each with a checkbox status and a 'Unassigned' label. The Doing column contains one task with a checked checkbox and a 'Unassigned' label. The Done column is empty.

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
11 Cleaning Engine To Do Unassigned	12 Remove Duplicate Records To Do Unassigned	
8 Handle Large File Uploads To Do Unassigned	9 Manage Uploaded Files To Do Unassigned	10 Upload via Drag-and-Drop 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 a project titled "Batch Data Analysis and Vis...". The left sidebar is open, showing options like Boards, Work items, and Analytics views. The main area is titled "Work Items" and shows a "NEW EPIC" card for "User Access and Security". The card includes 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 Description section with a placeholder "Click to add Description.". To the right of the card are sections for "Planning" (Priority 2, Start Date, Target Date) and "Related Work" (Add link). A comment input field at the bottom says "Add a comment. Use # to link a work item, @ to mention a person, or ! to link a pull request." A "switch to Markdown editor" link is also present.

Result:

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

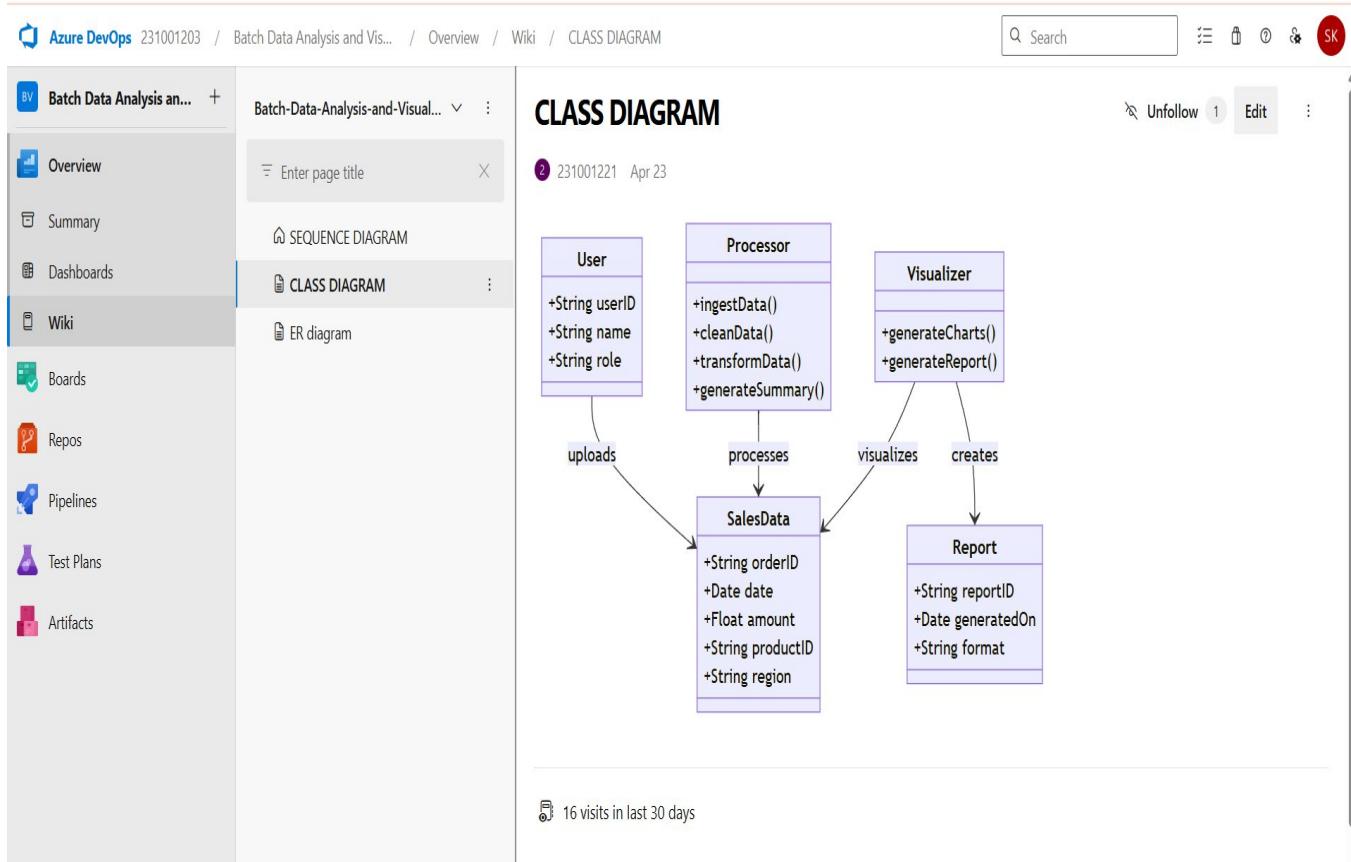
EXP NO: 6

DESIGNING CLASS AND SEQUENCE DIAGRAMS FOR PROJECT ARCHITECTURE

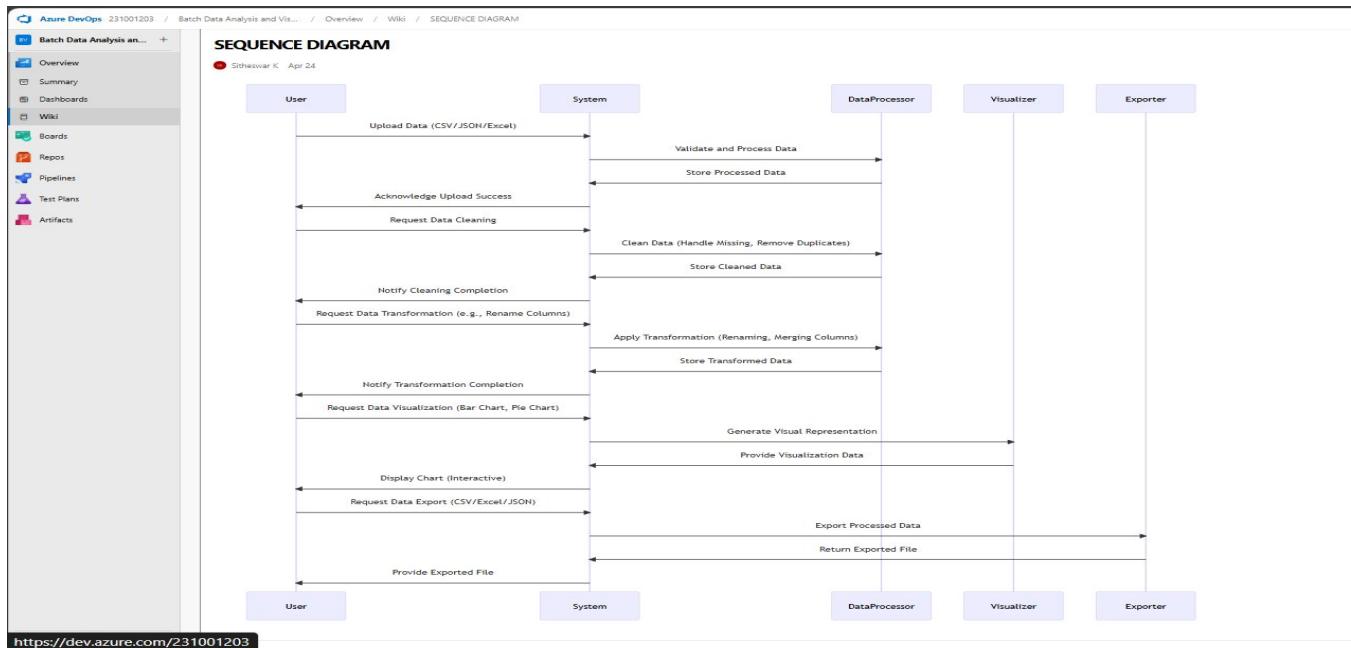
Aim:

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.

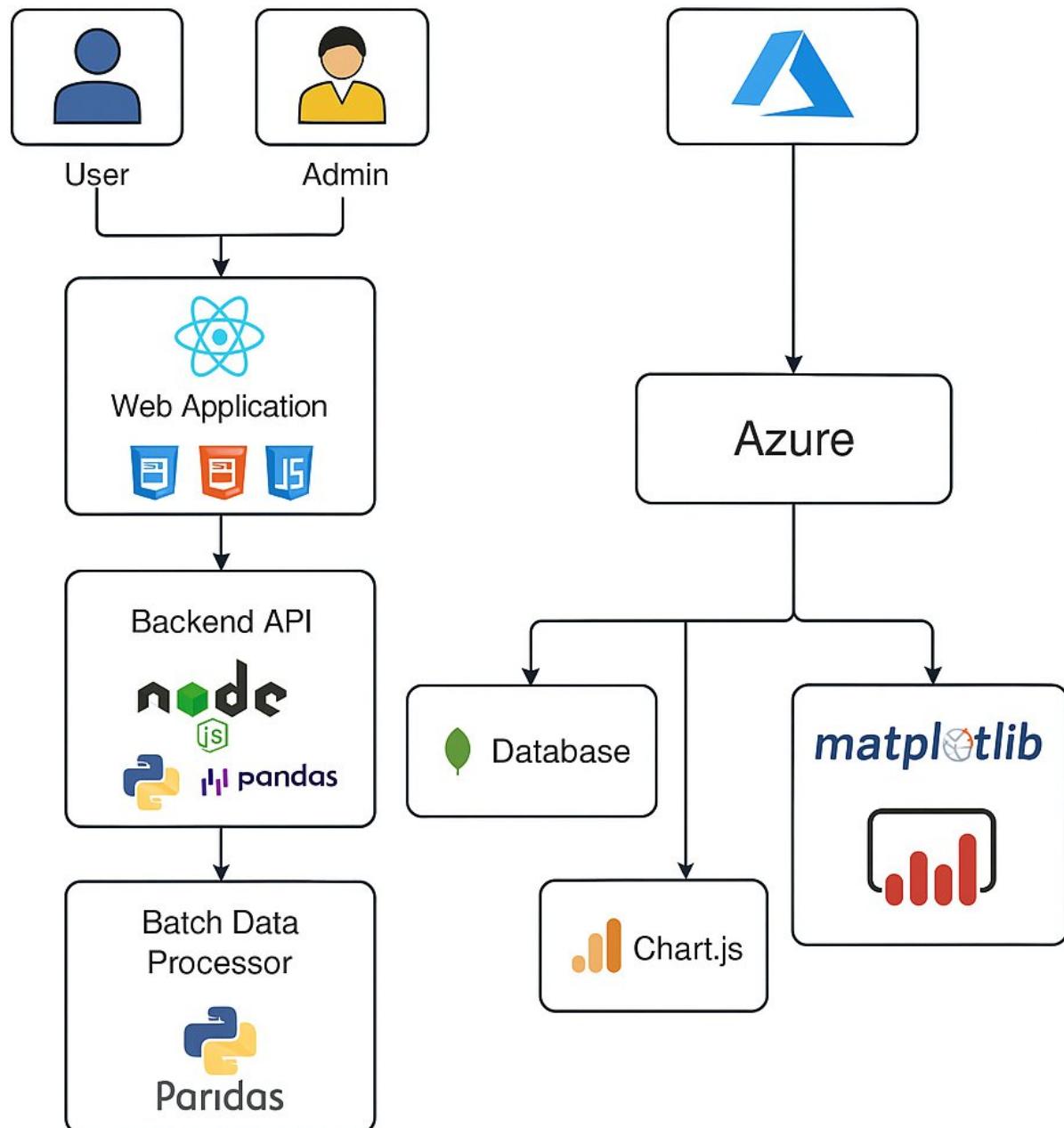
EXP NO: 7

DESIGNING ARCHITECTURAL AND ER DIAGRAMS FOR PROJECT STRUCTURE

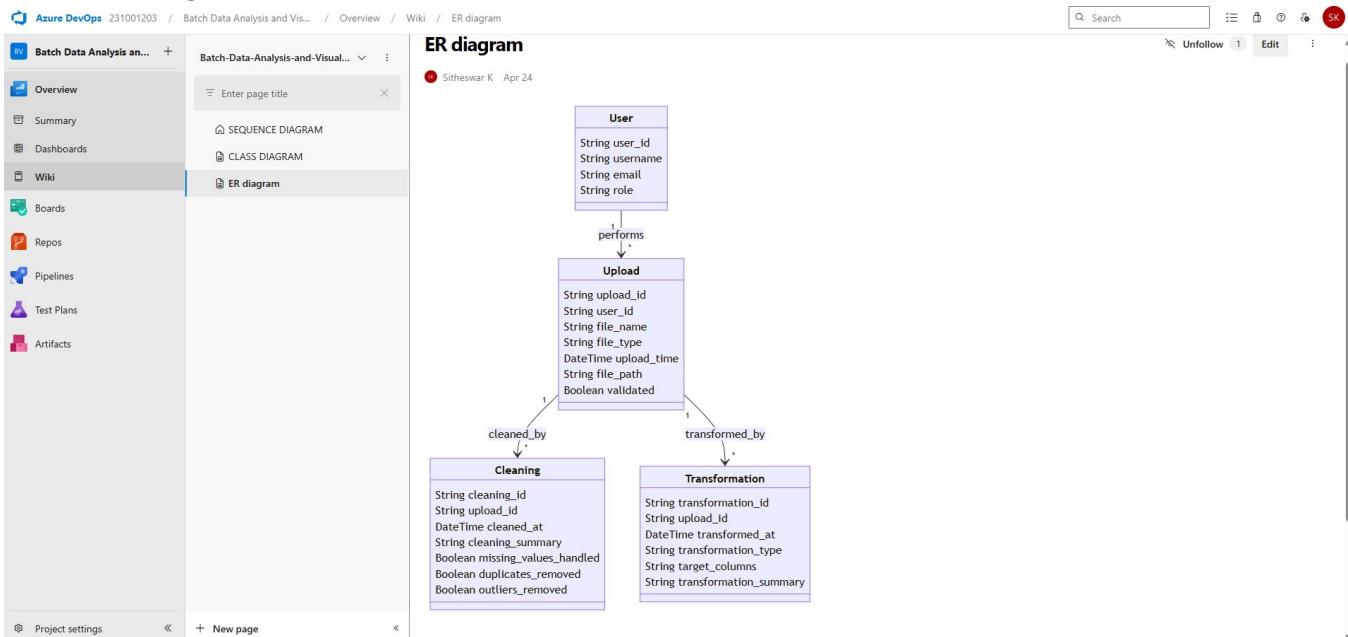
Aim:

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 fields for Name (Batch Data Analysis and Visualization - Test Plan), Area Path (Batch Data Analysis and Visualization), and Iteration (Batch Data Analysis and Visualization\development team). A date range from 5/1/2025 to 5/7/2025 is also shown. At the bottom right are 'Create' and 'Cancel' buttons.

2. Test suite

The screenshot shows the Azure DevOps interface for a project titled 'Batch Data Analysis and Vis...'. The left sidebar is open, showing 'Test Plans' selected. A context menu is open over a 'Test Suites' item, listing options: 'New Suite', 'Assign configurations', 'Export', 'Assign testers to run all tests', and 'Import test suites'. The main area displays a 'Batch Data Analysis and Visualization - Test Plan (ID: 25)' page. It has tabs for 'Define', 'Execute', and 'Chart'. Under 'Test Cases (3 items)', there is a table:

	Order	Test Case Id	Assigned To	Status
1	26	Sitheswar K	D	In Progress
2	27	Sitheswar K	D	Is with progress indicator
3	28	Sitheswar K	D	rd

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

State: Design Area: Batch Data Analysis and Visualization

Reason: New Iteration: Batch Data Analysis and Visualization\development team

Save and Close

Steps Summary Associated Automation

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

This screenshot shows the Azure DevOps Test Cases interface. A new test case is being created with the title 'export file failure'. The test case details include the owner (Sitheswar K), state (Design), area (Batch Data Analysis and Visualization), reason (New), and iteration (Batch Data Analysis and Visualization\development team). The 'Steps' section is currently empty, with a placeholder 'Click or type here to add a step'. Other sections like 'Deployment', 'Development', and 'Related Work' are also visible.

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

State: Design Area: Batch Data Analysis and Visualization

Reason: New Iteration: Batch Data Analysis and Visualization\development team

Save and Close Follow

Updated by Sitheswar K: 4m ago

Steps Summary Associated Automation

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

This screenshot shows the Azure DevOps Test Cases interface for an existing test case titled 'Visualization Dashboard'. The test case details are identical to the one in the first screenshot. The 'Steps' section is empty. The 'Deployment' and 'Development' sections are present, along with the 'Related Work' and 'Parameter values' sections.

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, Themes, and a search bar. Below the navigation bar, the Test & Feedback extension is displayed. The extension icon features a purple flask and a white compass. The title "Test & Feedback" is followed by the text "Extension | Microsoft Corporation", a rating of 4 stars from 28 reviews, and "100,000+ Users | Developer tools". A large preview image shows a browser interface with a toolbar and a screenshot of a video player. The screenshot includes a red annotation box with the text "change the color of button as per UX mocks". To the right of the preview, there is a "Get" button, a "Compatible with your browser" note, and a "Details" section with version information (Version 1.0.256.1), update date (Updated May 6, 2025), and language availability (Available in 1 language). Below the details are sections for "Terms", "Privacy policy", and "Developer" (More add-ons from Microsoft Corporation (917)). At the bottom left, there is a "Report abuse" button. On the far left, under the heading "Description", there is a box containing text about the extension's purpose and a link to its description page.

Microsoft | Edge Add-ons Discover Extensions Themes

Search extensions, themes, and more

Get

Compatible with your browser

Test & Feedback

Extension | Microsoft Corporation

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

Azure Test Plans: Introducing Test & Fee... :

Capture & Annotate

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)

Report abuse

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

Remove

Add-on already installed on your browser

Test & Feedback

Extension | Microsoft Corporation

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



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)

Report abuse

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.

...

Test and feedback

Showing it as an extension

Microsoft | Edge Add-ons Discover Extensions Themes

Search extensions, themes, and more

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)

Report abuse

Test & Feedback

Extension | Microsoft Corporation

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



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.

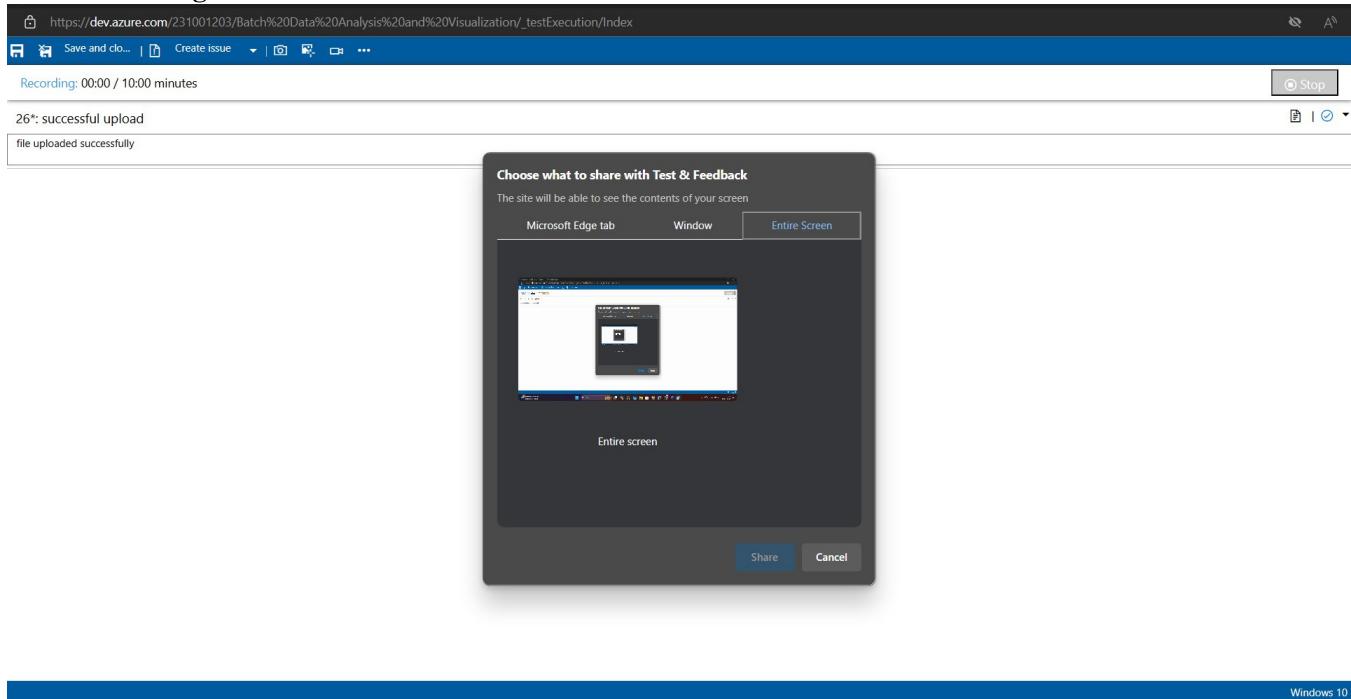
...

4. Running the test cases

The screenshot shows the Azure DevOps Test Plans interface. On the left, the navigation bar includes 'Overview', 'Boards', 'Repos', 'Pipelines', 'Test Plans' (selected), 'Test plans', 'Progress report', 'Parameters', 'Configurations', 'Runs', and 'Artifacts'. Under 'Test Plans', 'Batch Data Analysis and Vis...' is selected. The main area displays the 'Batch Data Analysis and Visualization - Test Plan (ID: 25)'. The 'Execute' tab is active, showing 'Test Points (4 items)'. A context menu is open over the first test point, 'successful upload', with options: 'Run for web application' (selected), 'Run for desktop application', and 'Run with options'. Other visible test points include 'Handle large file uploads with progress indicator', 'Visualization Dashboard', and 'Export file failure'. The table columns are 'Title', 'Outcome', 'Order', and 'Test Case Id'.

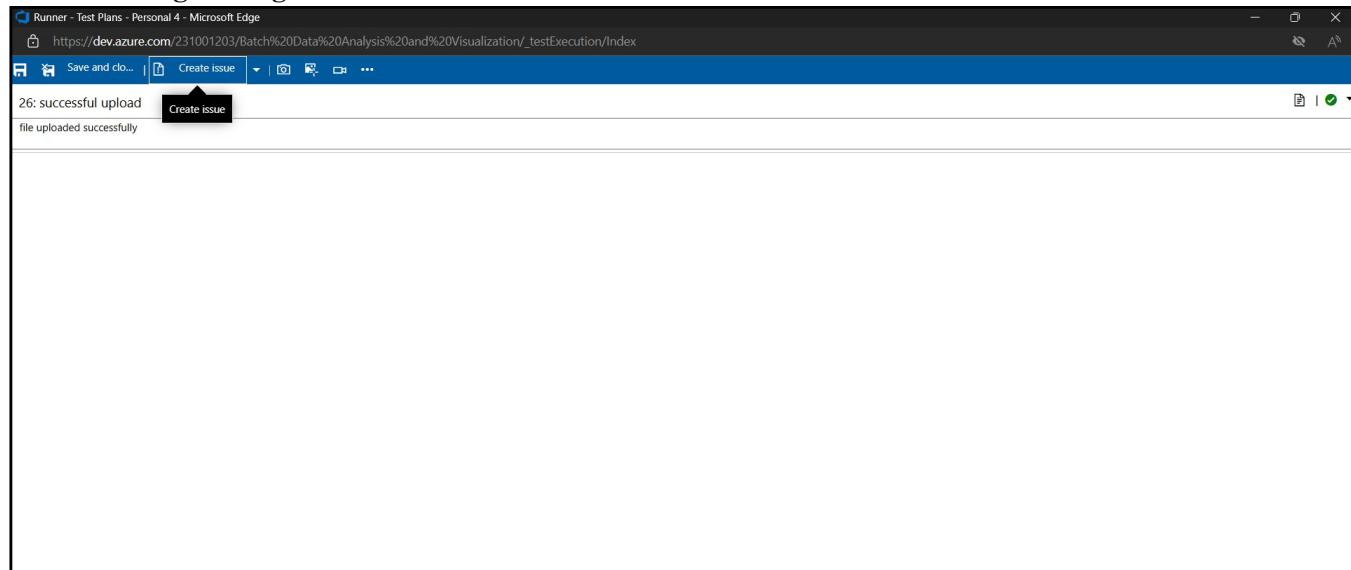
The screenshot shows a Microsoft Edge browser window titled 'Runner - Test Plans - Personal 4 - Microsoft Edge'. The URL is https://dev.azure.com/231001203/Batch%20Data%20Analysis%20and%20Visualization/_testExecution/Index. The page displays the results of a test execution. The output shows: '26*: successful upload' and 'file uploaded successfully'. The browser's address bar also shows the same URL.

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 | ...

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

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 | ... | 5K | Last update just now

Batch Data Analysis | NEW ISSUE *

successful upload Passed

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

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

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

B I U | Discussion

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

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

Runs

No test steps

Comments

Project settings

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CS23432

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'. A table lists test points by outcome (Passed, In Progress), timestamp, configuration, run by, tester, and test name. A link at the bottom allows opening the execution history.

Outcome	TimeSta...	Configuration	Run by	Tester	Test
Passed	Just now	Windows 10	Sitheswar K	Sitheswar K	Batch
In Progress	13m ago	Windows 10	Sitheswar K	Sitheswar K	Batch
Passed	8h ago	Windows 10	Sitheswar K	Sitheswar K	Batch

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', 'Analytics views', 'Repos', 'Pipelines', 'Test Plans', and 'Artifacts'. The main area displays a work item titled 'ISSUE 30: file is not uploaded due to poor network'. The 'Description' field contains a note about a successful upload. The 'Planning' section shows a priority of 2. The 'Deployment' section provides instructions for tracking releases. The 'Development' section includes a link to a commit or pull request. The 'Related Work' section is currently empty.

- Assigning bug to the developer and changing state

9. Progress report

Screenshot of the Azure DevOps Progress report page for the "Batch Data Analysis and Visualization - 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 - Process page. On the left, there's a sidebar with sections for General (Overview, Projects, Users, Billing, Global notifications, Usage, Extensions, Microsoft Entra), Security (Security overview, Policies, Permissions), Boards (Process), and Pipelines. The main area is titled "All processes" and lists four templates: Basic (default), Agile, Scrum, and CMMI. The Agile template is selected.

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
Change the process used by the project to another process.

Select a target process

Select a target process

Save

11. View the new test case template

The screenshot shows the 'Add a field to Bug' dialog box in the Azure DevOps interface. The 'Definition' tab is selected. Under 'Use an existing field', there is a field named 'Acceptance Criteria'. Under 'Create a field', a new field is being defined with the name 'type', type 'Text (single line)', and a description 'Optional provide a description for the field'. At the bottom are 'Add field' and 'Cancel' buttons.

The screenshot shows the 'All processes > Agile' page in the Azure DevOps interface. It displays a table with one row: '231001203 agile'. The columns are 'Name' and 'Description'. The 'Projects' tab is selected at the top. A message at the top says 'System processes cannot be customized. To add customization create an inherited process.'

The screenshot shows the Azure DevOps interface for creating a new test case. The left sidebar is titled "Organization Settings" and lists various sections like General, Security, and Boards. The main area shows the navigation path: All processes > 231001203 alige > Test Case. The "Layout" tab is selected. Below it, there are tabs for "Steps", "Summary", and "Associated Aut...". The "Steps" tab is active, showing a text input field labeled "Text (multiple lines)". To the right, there are sections for "Recent test results", "Deployment", "Development", "Related Work", and "Status". Each section has a brief description and a link. A vertical scroll bar is visible on the right side of the main content area.

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
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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:

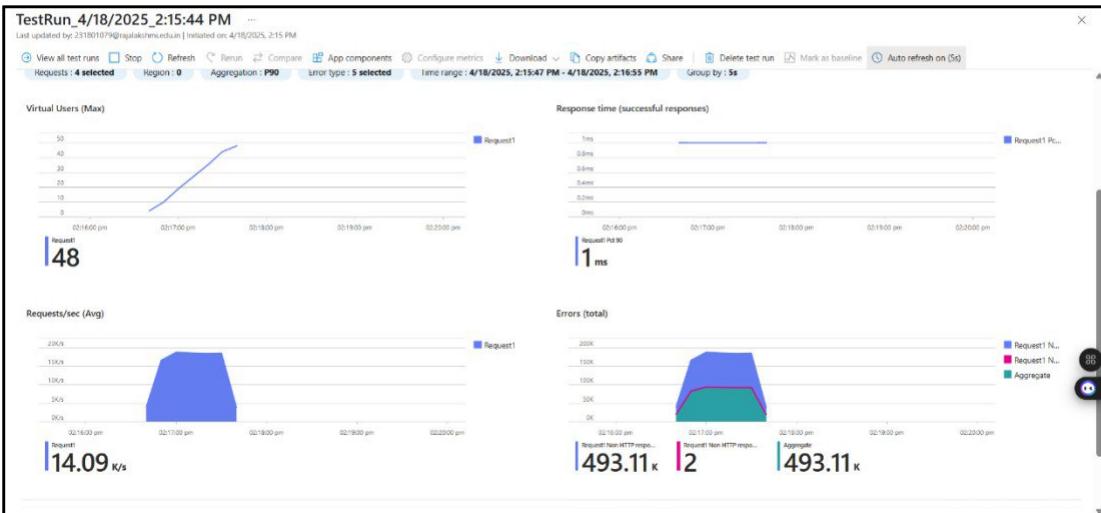
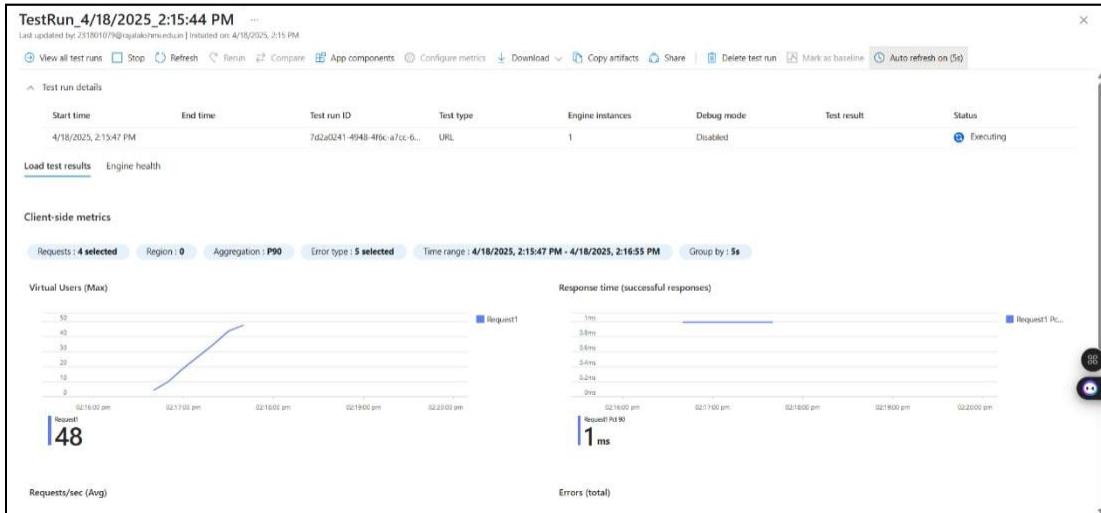
1. Sign in to Azure Portal
Go to <https://portal.azure.com> and log in.
2. Create the Resource
 - o Go to *Create a resource* → Search for “Azure Load Testing”.
 - o Select Azure Load Testing and click Create.
3. Fill in the Configuration Details
 - o *Subscription*: Choose your Azure subscription.
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

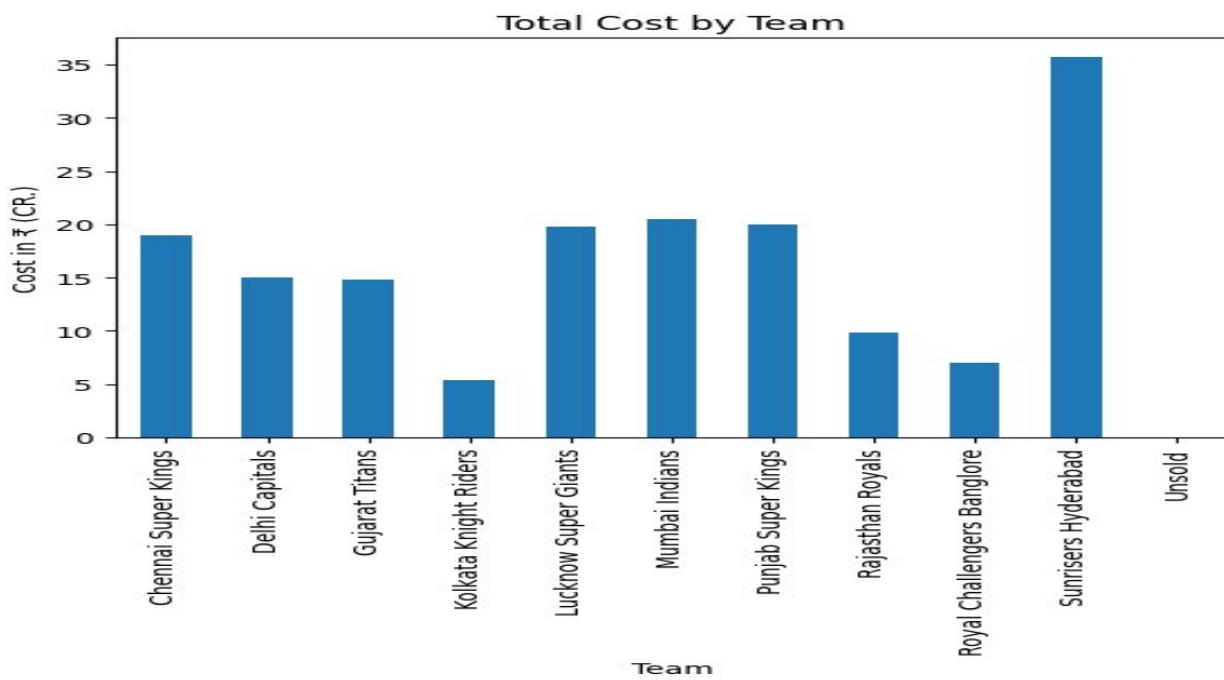
1. Go to your Azure Load Testing resource and click Add HTTP requests > Create.
2. Basics Tab
 - o *Test Name*: Provide a unique name.
 - o *Description*: (Optional) Add test purpose.
 - o *Run After Creation*: Keep checked.
3. Load Settings
 - o *Test URL*: Enter the target endpoint (e.g., <https://yourapi.com/products>).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

Load Testing



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CS23432



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' owned by 'recsithes'. The repository has 1 branch and 0 tags. The main file listed is 'README.md'. The commit history shows several uploads of files including 'output images', 'IPL_Squad_2023_Auction_Dataset.csv', 'README.md', 'app.py', 'class diagram.pdf', 'er diagram.pdf', and 'sequence diagram.pdf'. The last commit was 3 minutes ago. The repository has 0 stars, 1 watching, and 0 forks. It also has 0 releases and 0 packages published. The languages used are 100% Python.

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.