

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.

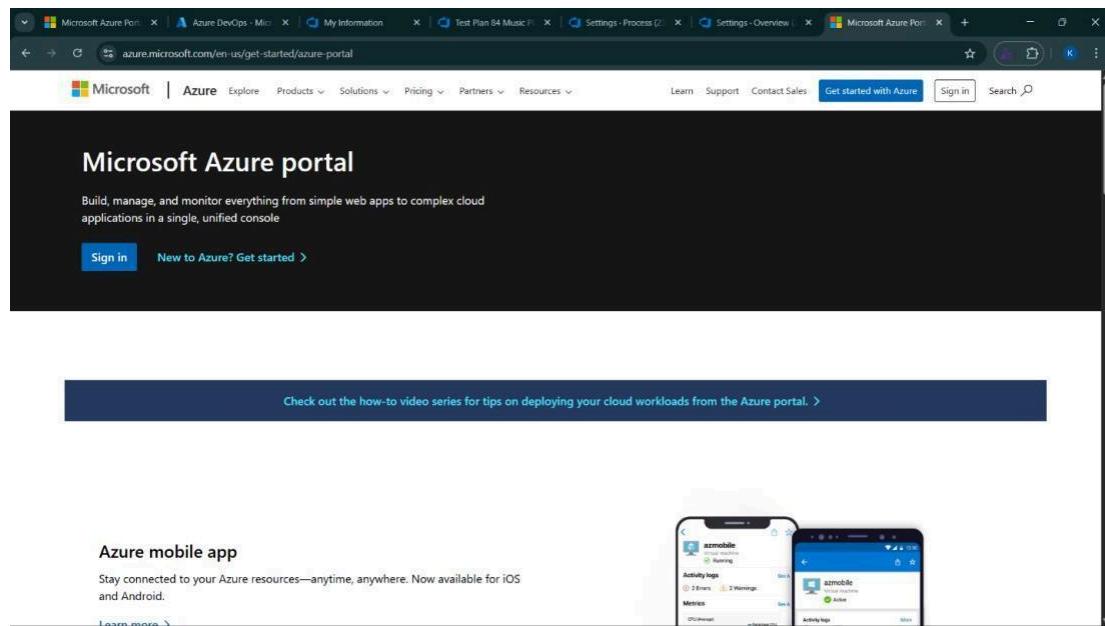
INSTALLATION

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 user profile icon. Below the header, a "Welcome to Azure!" message is displayed, followed by three service tiles: "Start with an Azure free trial", "Manage Microsoft Entra ID", and "Azure for Students". Under "Azure services", there are icons for Create a resource, Azure DevOps organizations, Projects, Quickstart Center, Azure AI foundry, Kubernetes services, Virtual machines, App Services, Storage accounts, and More services. A "Resources" section follows, featuring a search bar with the term "devops", a list of services (All, Services (7), Marketplace (31)), and links to Quickstart Center, Azure AI services, and More services. The "Last Viewed" section shows a link to "3 months ago". On the left, there are sections for Azure services (Create a resource, Azure DevOps organizations), Resources (Recent, Favorite), Navigate (Subscriptions), and Tools (Microsoft Learn). The bottom of the page includes a URL bar with the address "https://portal.azure.com/#blade/AzureTfExtension/OrganizationsTemplateBlade/".

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

The screenshot shows the Microsoft Azure search results for the term "devops". The search bar at the top has "devops" typed into it. Below the search bar, there are tabs for All, Services (7), and Marketplace (31). The "Services" tab is selected, showing a list of services: Azure Native New Relic Service, Managed DevOps Pools, Azure DevOps organizations (which is highlighted with a gray background), and Azure Native Dynatrace Service. To the right of the search results, there are links to Quickstart Center, Azure AI services, and More services. Below the search results, there are sections for Marketplace (Static Web App, Rocky Linux 9, Build Agents for Azure DevOps) and Documentation (Introduction to DevOps - Training, Course AZ-400T00-A: Designing and Implementing Microsoft DevOps solutions - T...). On the left, there are sections for Azure services (Create a resource, Azure DevOps organizations), Resources (Recent, Favorite), Navigate (Subscriptions), and Tools (Microsoft Learn). The bottom of the page includes a URL bar with the address "https://portal.azure.com/#blade/AzureTfExtension/OrganizationsTemplateBlade/".

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.

A screenshot of a web browser showing the Azure DevOps portal at portal.azure.com/#view/AzureTfExtension/OrganizationsTemplateBlade. The browser has multiple tabs open, including "Azure for Students – Free Account", "Azure DevOps - Microsoft Azure", "My Information", and "Settings - Users (pragadeeshld2005@gmail.com)". The main content area displays the "Azure DevOps" landing page. A banner at the top states: "We've made it easier to manage Azure DevOps billing and subscriptions. You can [set up billing](#), [change your subscription](#) or pay for more users and resources within Azure DevOps. [Learn more](#)". Below the banner, there's a large illustration of a rocket launching from a platform, surrounded by clouds and various icons representing development and operations. The text "Azure DevOps" is prominently displayed. To the left, there's a sidebar with links: "My Azure DevOps Organizations", "Get started using Azure DevOps", "Billing management for Azure DevOps", "Give feedback", and "Tell us about your experience with the Azure DevOps page".

Result:

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

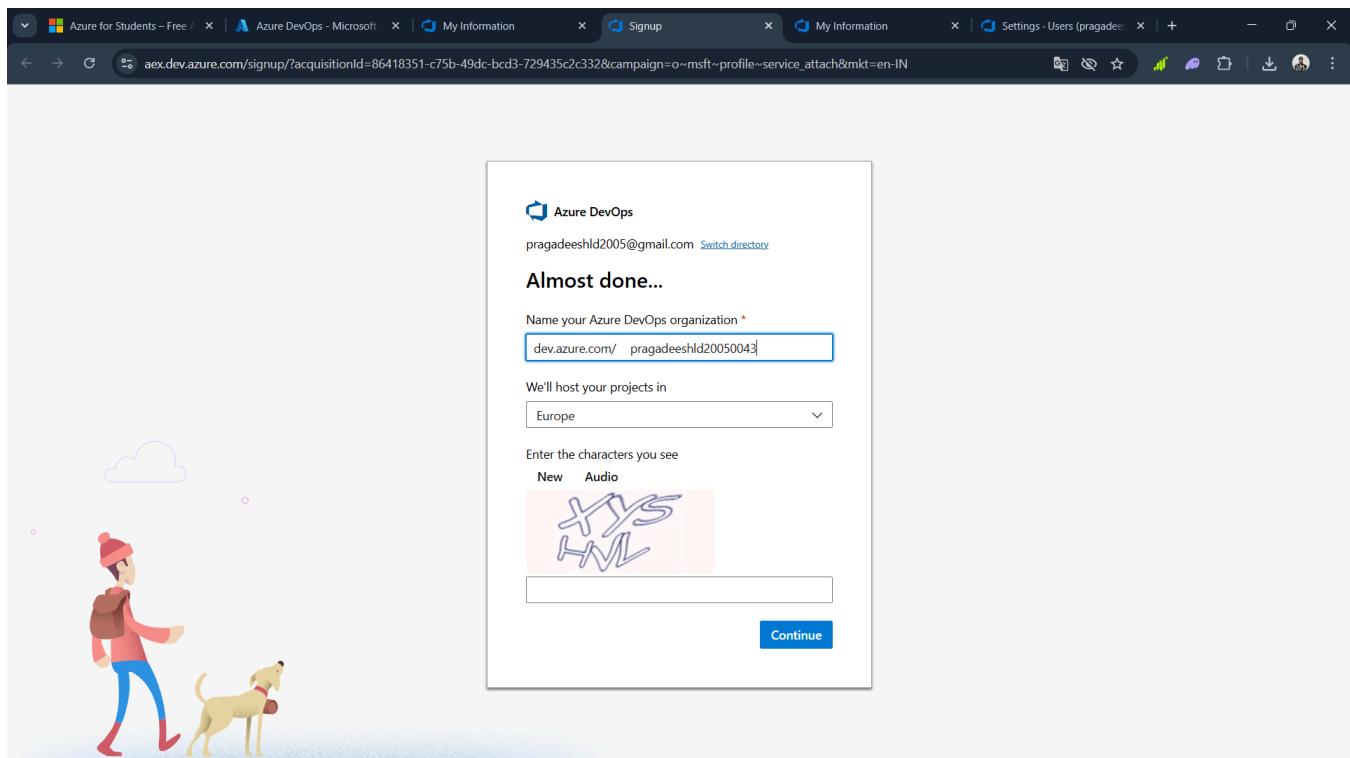
EXP NO: 2

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

Project name *

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 [?](#)

Work item process [?](#)

Cancel Create

The screenshot shows the 'Create new project' dialog box. At the top, it says 'Create new project' and has a close button 'X'. Below that is a 'Project name *' field containing 'Music Playlist Batch Creator', which is highlighted with a blue border. There is also an empty 'Description' field. The 'Visibility' section is expanded, showing two options: 'Public' (disabled) and 'Private' (selected). A note below says 'Public projects are disabled for your organization. You can turn on public visibility with [organization policies](#)'. Under the 'Advanced' section, there are dropdown menus for 'Version control' (set to 'Git') and 'Work item process' (set to 'Agile'). At the bottom right are 'Cancel' and 'Create' buttons, with 'Create' being blue and bold.

- 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

About this project

Azure Music Playlist Batch Creator
The Azure Music Playlist Batch Creator is a cloud-based solution designed for bulk playlist creation and management. Leveraging Azure services, this tool categorizes songs based on genre, mood, or custom criteria, automating playlist generation for various use cases.

Key Features

- Bulk Playlist Creation: Upload and categorize songs from multiple sources (MP3, Spotify, YouTube).
- Custom Templates: Define rules for mood, artist, or genre preferences.
- Tagging & Filtering: Label and filter songs by metadata (artist, release year, tempo, genre).
- Export & Sharing: Sync playlists with Spotify/YouTube and share via social media or email.
- User-friendly Interface: Drag-and-drop song management with visual feedback.
- Playlist Editing: Modify song order, metadata, and track inclusion.
- Search Functionality: Quickly find songs by title, artist, album, or genre.

Use Cases

- DJs & Curators: Auto-generate playlists for events and themes.
- Content Creators: Curate playlists for videos, podcasts, and social media.
- Music Enthusiasts: Create personalized playlists based on mood and activities.
- Large Music Libraries: Organize and structure collections efficiently.

Technical Stack

- Frontend: Web-based UI (HTML, CSS, JavaScript)
- Backend: Azure Functions, API Management
- Database: Azure Cosmos DB for storing metadata
- Music Integration: Spotify, Apple Music APIs
- Future Enhancements
- AI-powered Recommendations: Personalized playlist suggestions based on listening history.
- Real-time Collaboration: Multi-user playlist creation.
- Music Discovery: Integrate APIs for new song recommendations.

Project stats

Period: Last 7 days

Boards	Repos	Pipelines
13 Work items created	0 Work items completed	0 Pull requests opened
		2 Commits by 2 authors

Members

PD, NS, SP, SP, SP

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 interface for the 'playlist batch creator' project. The left sidebar is the navigation menu. The 'Backlogs' option is selected. The main area displays the 'Backlog' view for the 'playlist batch creator Team'. At the top right of the backlog table, there is a 'New Work Item' button and an 'Add to bottom' button. The backlog table has columns for Order, Work Item Type, Title, State, Effort, Business Value Area, and Tags. Three backlog items are listed:

Order	Work Item Type	Title	State	Effort	Business Value Area	Tags
1	Epic	> Song Selection for Playlist Creation	New		Business	
2	Epic	> Playlist Customization	New		Business	
3	Epic	> Payment & Download	New		Business	

The screenshot shows the Microsoft sign-in page. At the top, there is a navigation bar with icons for settings, help, and a profile picture labeled 'SP'. Below the navigation bar, the Microsoft logo is on the left and 'Sign out' is on the right. A large blue circular profile picture with the letters 'SP' is centered. Below the profile picture, the user's name 'Shriram Pugazhenthi' is displayed, followed by the email address '231501124@rajalakshmi.edu.in'. There are links for 'My Microsoft account' and 'Switch directory'. At the bottom, there is a button for 'Sign in with a different account' accompanied by a user icon.

Result:

setup.

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

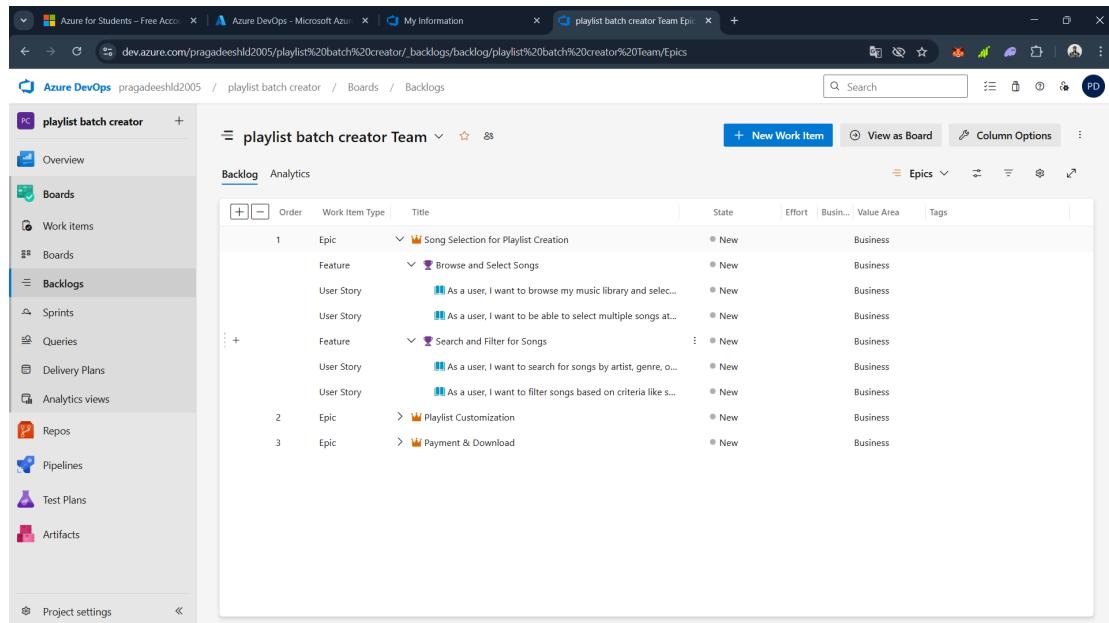
EXP NO: 3

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 interface for a project named "playlist batch creator Team". The left sidebar is the navigation menu with options like Overview, Boards, Work items, Backlogs, Sprints, Queries, Delivery Plans, Analytics views, Repos, Pipelines, Test Plans, Artifacts, and Project settings. The main area is the "Backlog" tab under the "Analytics" section. It displays a hierarchical list of work items:

Order	Work Item Type	Title	State	Effort	Business Area	Tags
1	Epic	Song Selection for Playlist Creation	New		Business	
	Feature	Browse and Select Songs	New		Business	
	User Story	As a user, I want to browse my music library and sele...	New		Business	
	User Story	As a user, I want to be able to select multiple songs at...	New		Business	
	Feature	Search and Filter for Songs	New		Business	
	User Story	As a user, I want to search for songs by artist, genre, o...	New		Business	
	User Story	As a user, I want to filter songs based on criteria like s...	New		Business	
2	Epic	Playlist Customization	New		Business	
3	Epic	Payment & Download	New		Business	

1. Fill in Epics

Azure DevOps 2315011240267 / MUSIC PLAYLISTS SYSTEM / Boards / Work items

Did you notice Azure Boards has a new look and awesome new features? [Learn more.](#)

Work Items [Back to Work Items](#)

NEW EPIC *

Music Discovery and Playback

No one selected [0 Comments](#) [Add Tag](#)

Save

State: New Area: MUSIC PLAYLISTS SYSTEM
Reason: New Iteration: MUSIC PLAYLISTS SYSTEM

Description **Planning** **Deployment**

Click to add Description. Priority: 2
Business Value: Risk: Effort: 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](#)

Discussion

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

Development

Add link Link an Azure Repos [commit](#), [pull request](#) or [branch](#) to see the status of your development. You can also [create a branch](#) to get started.

Project settings

2. Fill in Features

The screenshot shows the Azure DevOps interface for creating a work item. The left sidebar is titled 'MUSIC PLAYLISTS SYS...' and includes options like Overview, Boards, Work items, and Project settings. The main area is titled 'Work Items' and shows a 'Song Search and Recommendation' card. The card has fields for State (New), Reason (New), Area (MUSIC PLAYLISTS SYSTEM), Iteration (MUSIC PLAYLISTS SYSTEM), and a 'Description' section with a placeholder 'Click to add Description.' Below the card is a 'Discussion' section with a comment input field and a 'switch to Markdown editor' link. To the right are sections for 'Planning' (Priority 2, Risk), 'Deployment' (status reporting), and 'Development' (Add link). A 'Save' button is at the top right.

3. Fill in User Story Details

The screenshot shows the Azure DevOps interface for creating a work item. The left sidebar is titled 'MUSIC PLAYLISTS SYS...' and includes options like Overview, Boards, Work items, and Project settings. The main area is titled 'Work Items' and shows a 'NEW USER STORY' card. The card has fields for State (New), Reason (New), Area (MUSIC PLAYLISTS SYSTEM), Iteration (MUSIC PLAYLISTS SYSTEM), and a 'Description' section with a placeholder 'Click to add Description.' Below the card is a 'Acceptance Criteria' section with a placeholder 'Click to add Acceptance Criteria.' To the right are sections for 'Planning' (Story Points, Priority 2, Risk), 'Classification' (Value area: Business), and 'Development' (Add link). A 'Save' button is at the top right.

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

The screenshot shows the Azure DevOps Boards interface for the 'MUSIC PLAYLISTS SYSTEM' project. The left sidebar navigation bar is visible, with 'Boards' selected. The main board view for 'Iteration 1' shows a single user story card. The card details are as follows:

- User Story ID:** 24
- Description:** As a user, I want to search for songs by title, artist, or genre so that I can easily find what I'm looking for.
- Status:** New
- Assignee:** Shriram Pugazhenthi

The top right corner of the board view shows the sprint duration: May 1 - May 16, 12 work days. The bottom right corner of the screen shows the system tray with various icons and the date/time: 22-05-2025, 01:13.

Sprint 2

Azure DevOps 2315011240267 / MUSIC PLAYLISTS SYSTEM / Boards / Sprints

Did you notice Azure Boards has a new look and awesome new features? [Learn more.](#)

MUSIC PLAYLISTS SYSTEM Team

Taskboard Backlog Capacity Analytics

Iteration 2 Person: All

No iteration dates Set dates

Sprints

New Active Resolved Closed

Work items Boards Backlogs Queries Delivery Plans Analytics views Repos Pipelines Test Plans Artifacts

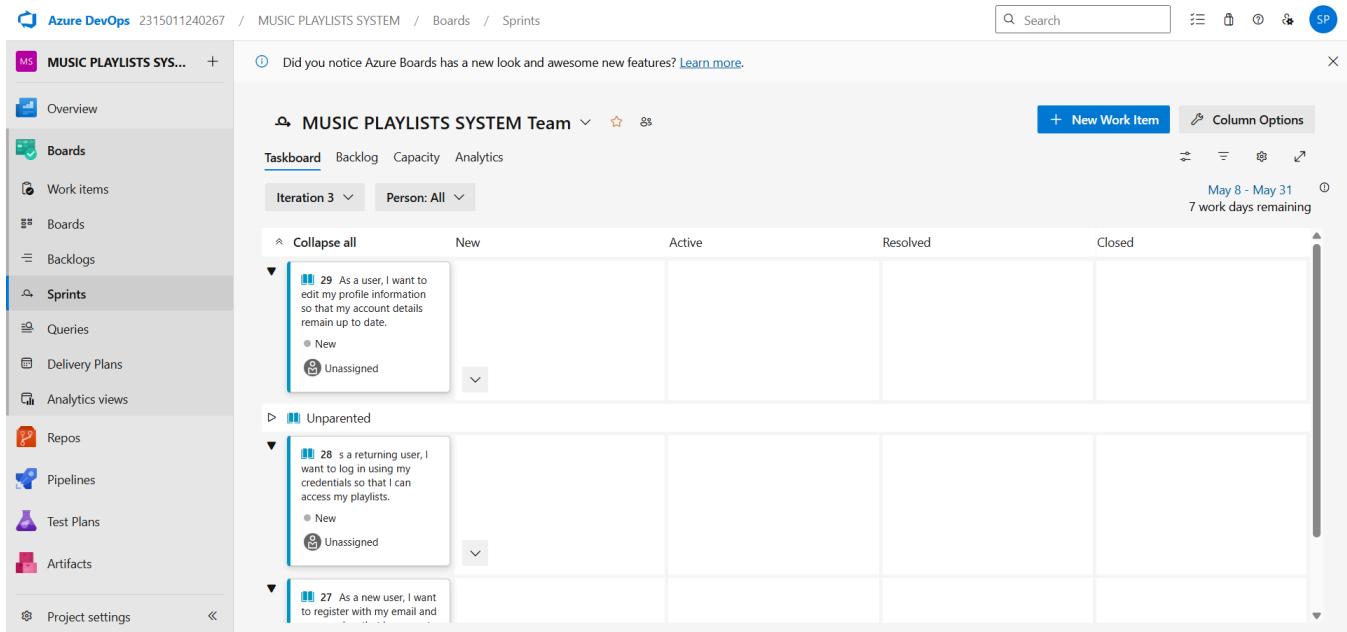
26 As a user, I want to view the current song details (title, artist, album art) while it plays so that I know what I'm listening to.
New Shriram Pugazhenthi

25 As a user, I want to play, pause, and skip songs so that I have full control over my listening experience.
New Shriram Pugazhenthi

[Direct edit](https://dev.azure.com/2315011240267/MUSIC%20PLAYLISTS%20SYSTEM/_workitems/edit/26)

https://dev.azure.com/2315011240267/MUSIC%20PLAYLISTS%20SYSTEM/_workitems/edit/26

Sprint 3



Azure DevOps Project: MUSIC PLAYLISTS SYSTEM / Boards / Sprints

MUSIC PLAYLISTS SYSTEM Team - Taskboard

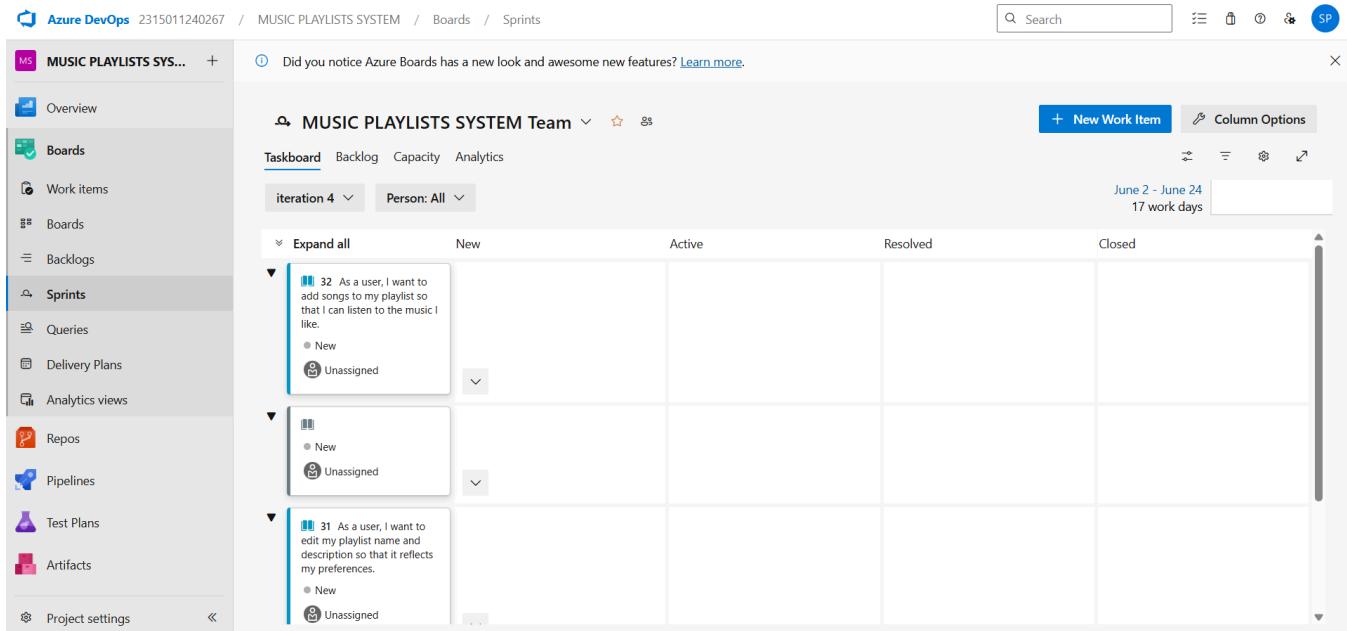
Iteration 3 - May 8 - May 31 (7 work days remaining)

Work items:

- 29 As a user, I want to edit my profile information so that my account details remain up to date.
New Unassigned
- 28 As a returning user, I want to log in using my credentials so that I can access my playlists.
New Unassigned
- 27 As a new user, I want to register with my email and
[...]

Column Options: + New Work Item, Column Headers (New, Active, Resolved, Closed), Sort/Filter icons.

Sprint 4



Azure DevOps Project: MUSIC PLAYLISTS SYSTEM / Boards / Sprints

MUSIC PLAYLISTS SYSTEM Team - Taskboard

Iteration 4 - June 2 - June 24 (17 work days remaining)

Work items:

- 32 As a user, I want to add songs to my playlist so that I can listen to the music I like.
New Unassigned
- [...]
New Unassigned
- 31 As a user, I want to edit my playlist name and description so that it reflects my preferences.
New Unassigned

Column Options: + New Work Item, Column Headers (New, Active, Resolved, Closed), Sort/Filter icons.

Result:

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

EXP NO: 5	POKER ESTIMATION
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Aim:

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

Poker Estimation

The screenshot shows the Azure DevOps interface for creating a new user story. The story title is "As a user, I want to add songs to my playlist so that I can listen to the music I like." The "Planning" section indicates Story Points as 2 and Priority as 2. The "Classification" section shows the Value area as Business. The "Deployment" section contains a note: "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." Other sections visible include "Acceptance Criteria" and "Discussion".

Result:

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

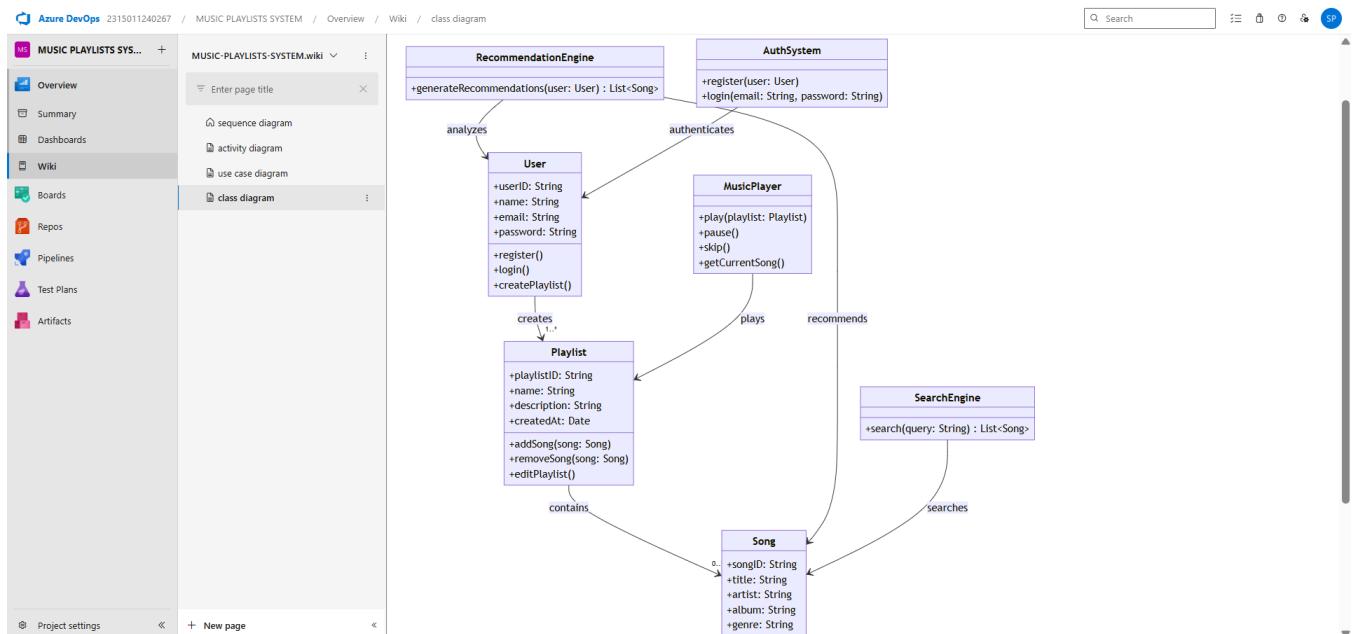
EXP NO: 6

DESIGNING CLASS AND SEQUENCE DIAGRAMS FOR PROJECT ARCHITECTURE

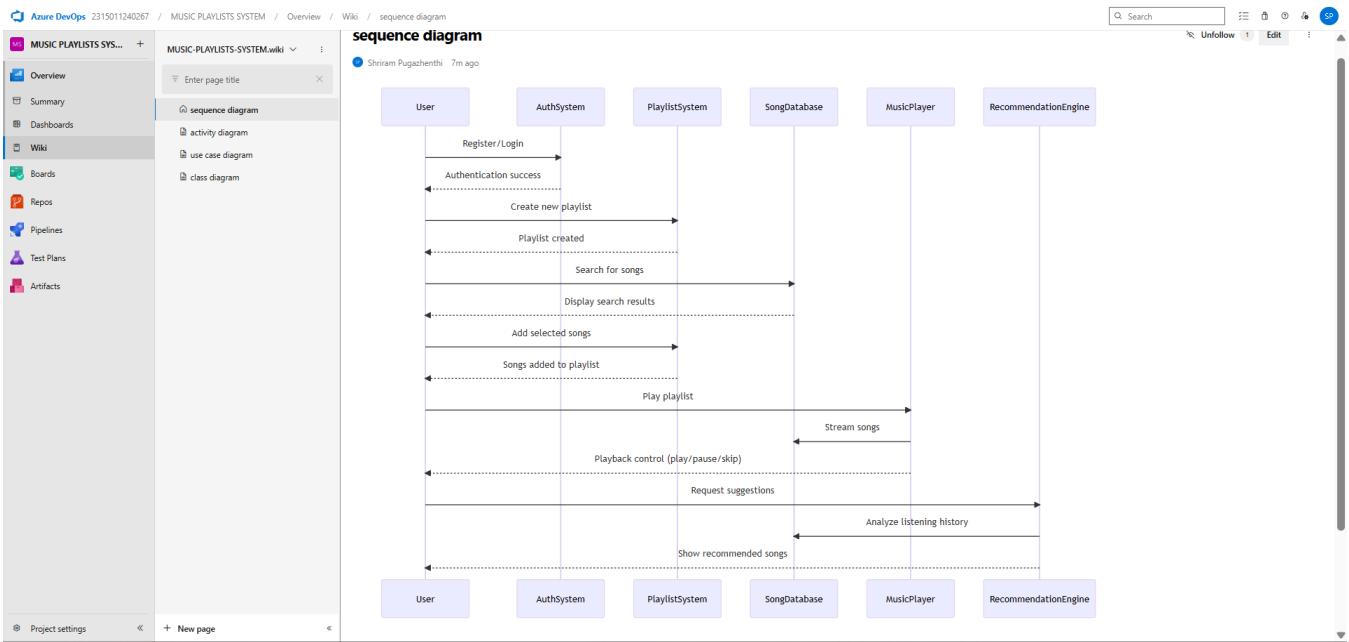
Aim:

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.

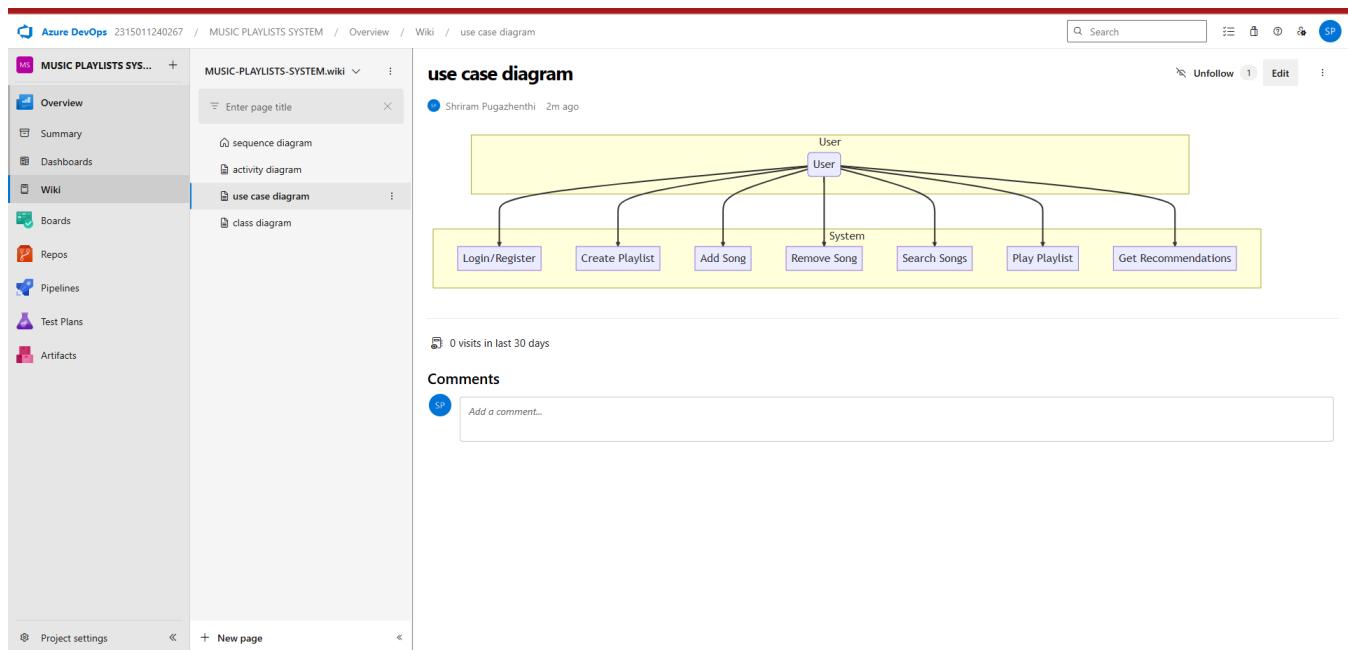
EXP NO: 7

DESIGNING USE CASE AND ACTIVITY DIAGRAMS FOR PROJECT STRUCTURE

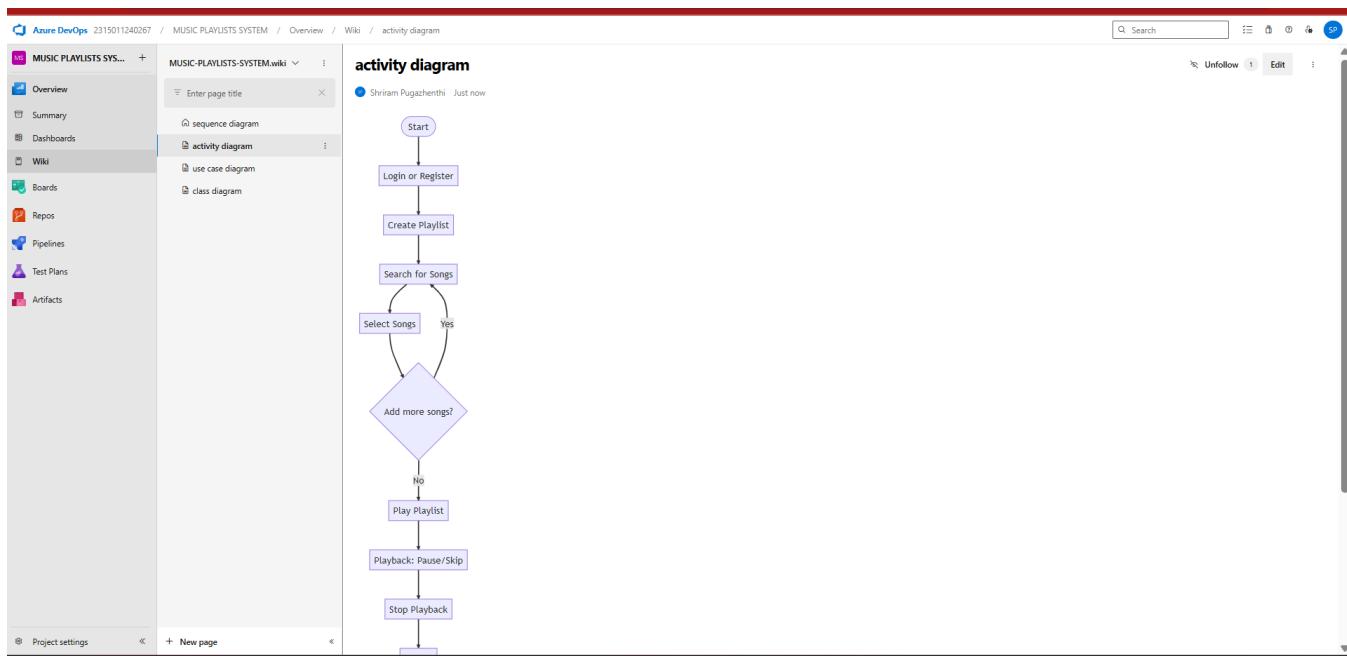
Aim:

To Design an Use Case Diagram and Activity Diagram for the given Project.

7A. Use Case Diagram



7B. Activity Diagram



Result:

Creator

The Use Case Diagram and Activity Diagram is
designed Successfully for the Music Playlist Batch

EXP NO: 8	TESTING – TEST PLANS AND TEST CASES
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Aim:

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

Test Planning and Test Case

Test Case Design Procedure

1. Understand Core Features of the Application

- User Signup & Login
- Viewing and Managing Playlists
- Fetching Real-time Metadata
- Editing playlists (rename, reorder, record)
- Creating smart audio playlists based on categories (mood, genre, artist, etc.)

2. Define User Interactions

- Each test case simulates a real user behaviour (e.g., logging in, renaming a playlist, adding a song).

3. Design Happy Path Test Cases

- Focused on validating that all features function as expected under normal conditions.
- Example: User logs in successfully, adds item to playlist, or creates a category-based playlist.

4. Design Error Path Test Cases

- Simulate negative or unexpected scenarios to test robustness and error handling.
- Example: Login fails with invalid credentials, save fails when offline, no recommendations found.

5. Break Down Steps and Expected Results

- Each test case contains step-by-step actions and a corresponding expected outcome.
- Ensures clarity for both testers and automation scripts.

6. Use Clear Naming and IDs

- Test cases are named clearly (e.g., TC01 – Successful Login, TC10 – Save Playlist Fails).
- Helps in quick identification and linking to user stories or features.

7. Separate Test Suites

- Grouped test cases based on functionality (e.g., Login, Playlist Editing, Recommendation System).

- Improves organization and test execution flow in Azure DevOps.

8. Prioritize and Review

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

1. New test plan

The screenshot shows the 'Test Plans' section of the Azure DevOps interface. A new test plan is being created with the following details:

- Name:** Song selection for playlist creation
- Area Path:** playlist batch creator
- Iteration:** playlist batch creator\sprint 10

At the bottom right, there are 'Create' and 'Cancel' buttons.

2. Test suite

The screenshot shows the 'Song Selection for Playlist Creation' test suite configuration. The 'Define' tab is selected, displaying the following information:

- Test Suites:** Song Selection for Playlist Creation (ID: 51)
- Test Cases:** (2 items)

	Order	Test Case Id	Assigned To	State
<input type="checkbox"/> Title	1	52	Pragadeesh kuma...Design	
<input type="checkbox"/> Browse Music Library	2	53	Pragadeesh kuma...Design	
<input type="checkbox"/> Search and Filter Songs				

The left sidebar shows the project navigation, and a context menu is open over the 'Song Selection for Playlist Creation' test suite entry, listing options like 'New Suite', 'Assign configurations', 'Export', 'Assign testers to run all tests', and 'Import test suites'.

3. Test case

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

Music Playlist Batch Creator – Test Plans

USER STORIES

1. As a user, I want to browse my music library and select songs to add to a playlist.
2. As a user, I want to be able to select multiple songs at once.
3. As a user, I want to search for songs by artist, genre, or title.
4. As a user, I want to filter songs based on criteria like style or release year.
5. As a user, I want to create custom playlists and save them.

Test Suites

Test Suite: TS06 – Song Selection for Playlist Creation

Feature: Browse and Select Songs, Search and Filter for Songs

- ◆ **TC15 – Browse Music Library**
- **Objective:** Verify the user can browse the music library.
- **Steps:**
 1. Login to the app.
 2. Navigate to the music library section.
 3. Scroll through available songs.
- **Expected Result:** Songs should be visible and scrollable.
- **Type:** Happy Path
-
- ◆ **TC16 – Multi-select Songs**
- **Objective:** Verify multiple songs can be selected.
- **Steps:**
 1. Navigate to the music library.
 2. Select multiple songs using checkboxes or multi-select options.
- **Expected Result:** Multiple songs should be selected without losing previous selections.
- **Type:** Happy Path

- ◆ **TC17 – Search and Filter Songs**
- **Objective:** Verify search and filtering functionality.

- **Steps:**
 1. Enter a keyword in the search bar (e.g., artist name).
 2. Apply filters like genre or year.
- **Expected Result:** Only relevant songs should be displayed based on search/filter criteria.
- **Type:** Happy Path

Test Suite: TS07 – Playlist Customization

Feature: Create and Save Playlists, Edit Playlist Order

- ◆ **TC18 – Create Playlis**
 - **Objective:** Verify the user can create a custom playlist.
 - **Steps:**
 1. Click "Create Playlist."
 2. Add songs.
 3. Name the playlist and save.
 - **Expected Result:** Playlist should be created and saved successfully.
 - **Type:** Happy Path
-
- ◆ **TC19 – Name and Save Playlist**
 - **Objective:** Ensure playlists can be named and saved with a custom title.
 - **Steps:**
 1. Enter a custom name.
 2. Click “Save.”
 - **Expected Result:** Playlist should be saved with the correct name.
 - **Type:** Happy Path
-
- ◆ **TC20 – Reorder Songs in Playlist**
 - **Objective:** Test drag-and-drop or manual reordering.
 - **Steps:**
 1. Open an existing playlist.
 2. Reorder songs using drag-and-drop or arrow buttons.
 - **Expected Result:** Songs should rearrange correctly and persist after saving.
 - **Type:** Happy Path

Test Suite: TS08 – Payment & Download

Feature: Paid Song Downloads, Download Access Control

- ◆ **TC21 – Purchase Song**
 - **Objective:** Verify users can purchase individual songs.
 - **Steps:**
 1. Select a song to purchase.
 2. Proceed to payment.
 3. Complete the transaction.
 - **Expected Result:** Payment should be successful and the song marked as purchased.
 - **Type:** Happy Path
-
- ◆ **TC22 – Secure Payment Flow**
 - **Objective:** Ensure payment is handled securely.
 - **Steps:**
 1. Initiate payment.
 2. Enter card or payment details.
 - **Expected Result:** Data is transmitted securely (e.g., via HTTPS), and the payment gateway processes the transaction without errors.
 - **Type:** Happy Path
-
- ◆ **TC23 – Download Purchased Songs**
 - **Objective:** Confirm users can download purchased songs.
 - **Steps:**
 1. Navigate to purchased songs.
 2. Click “Download.”
 - **Expected Result:** Download should begin, and a confirmation email should be sent.
 - **Type:** Happy Path

Test Cases

Azure DevOps Test Case 52: S2. Browse Music Library

Pragadeesh kumar L D | 0 Comments | Add Tag

State: Design | Area: playlist batch creator | Reason: New | Iteration: playlist batch creator\sprint 1

Steps

Steps	Action	Expected result	Attachments
1.	Login to the app.		
2.	Navigate to the music library section.		
3.	Scroll through available songs.	Songs should be visible and scrollable.	

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](#)

Status

Priority:

Azure DevOps Test Case 53: 53. Search and Filter Songs

Pragadeesh kumar L D | 0 Comments | Add Tag

State: Design | Area: playlist batch creator | Reason: New | Iteration: playlist batch creator\sprint 1

Steps

Steps	Action	Expected result	Attachments
1.	Enter a keyword in the search bar (e.g., artist name).		
2.	Apply filters like genre or year.	Only relevant songs should be displayed based on search/filter criteria.	

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

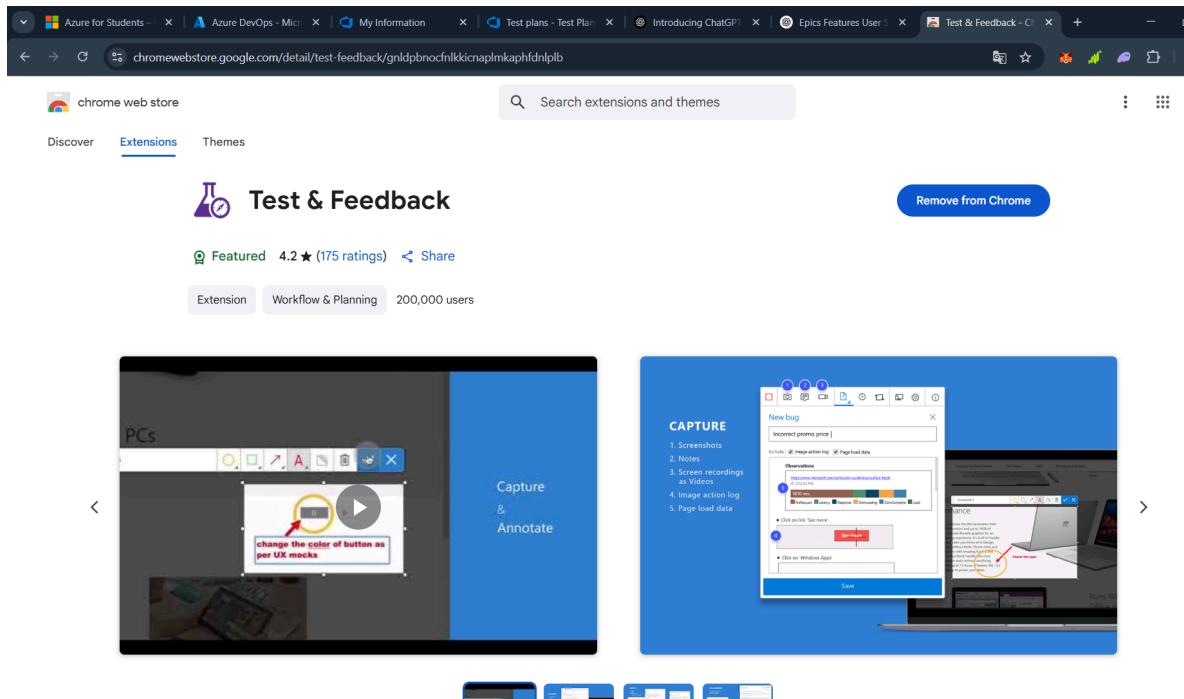
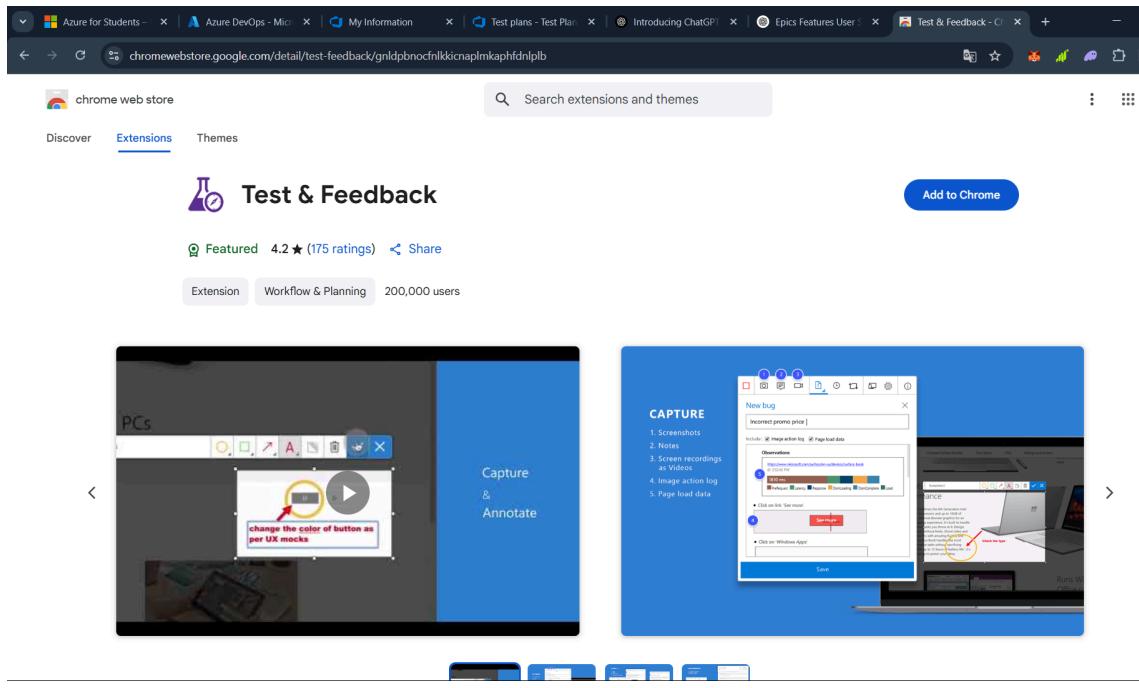
Add link ▾

[Add an existing work item as a parent](#)

Status

Priority:

4. Installation of test

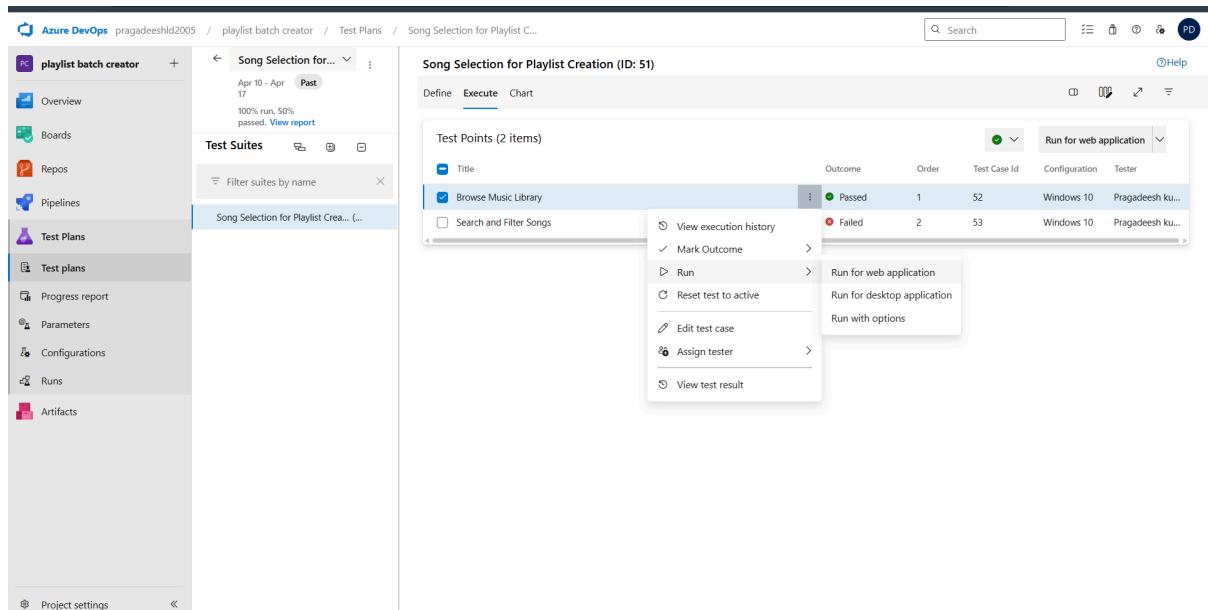


Test and feedback

Showing it as an extension

The screenshot shows the Azure DevOps interface for a project named "playlist batch creator". The left sidebar is visible 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 center, a "Song Selection for..." test plan is displayed, showing a summary for a run from April 10 - Apr 17, with 17 items, 100% run, 50% passed, and a link to "View report". Below this, the "Test Suites" section lists "Song Selection for Playlist Crea..." (with a dropdown arrow) and other items. A modal window titled "Extensions" is overlaid on the page. It has two sections: "Full access" which lists "Grass Lite Node", "MetaMask", "Phantom", and "Test & Feedback" (which is highlighted with a blue border); and "No access needed" which lists "Chrome Remote Desktop" and "Hide Discord Sidebar". At the bottom of the modal is a "Manage extensions" button.

5. Running the test cases



The screenshot shows the Azure DevOps Test Plans interface. On the left, the navigation bar is visible 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 center, a test plan titled 'Song Selection for Playlist Creation (ID: 51)' is displayed. The 'Execute' tab is selected. Under 'Test Points (2 items)', there are two entries: 'Browse Music Library' (Status: Passed) and 'Search and Filter Songs' (Status: Failed). A context menu is open over the 'Browse Music Library' entry, showing options: View execution history, Mark Outcome, Run, Reset test to active, Edit test case, Assign tester, and View test result. A tooltip for 'Run for web application' is also visible. At the top right, there are icons for Help, Print, and Copy.

Song Selection for Playlist Creation (ID: 51)

Define Execute Chart

Test Points (2 items)

Title	Outcome	Order	Test Case Id	Configuration	Tester
<input checked="" type="checkbox"/> Browse Music Library	Passed	1	52	Windows 10	Pragadeesh k...
<input type="checkbox"/> Search and Filter Songs	Failed	2	53	Windows 10	Pragadeesh k...

Run for web application

Run for desktop application

Run with options

View test result

Runner - Test Plans - Google Chrome

Save and close Create bug

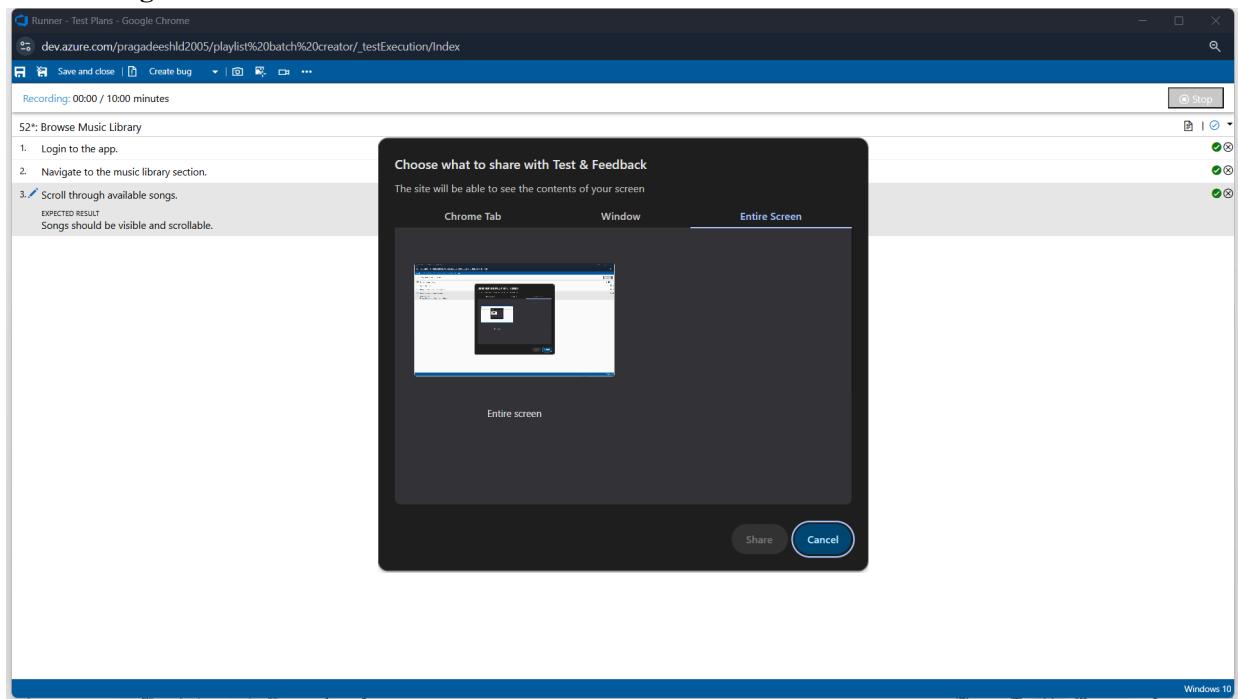
52: Browse Music Library

- ✓ Login to the app.
- Navigate to the music library section.
- ✓ Scroll through available songs.

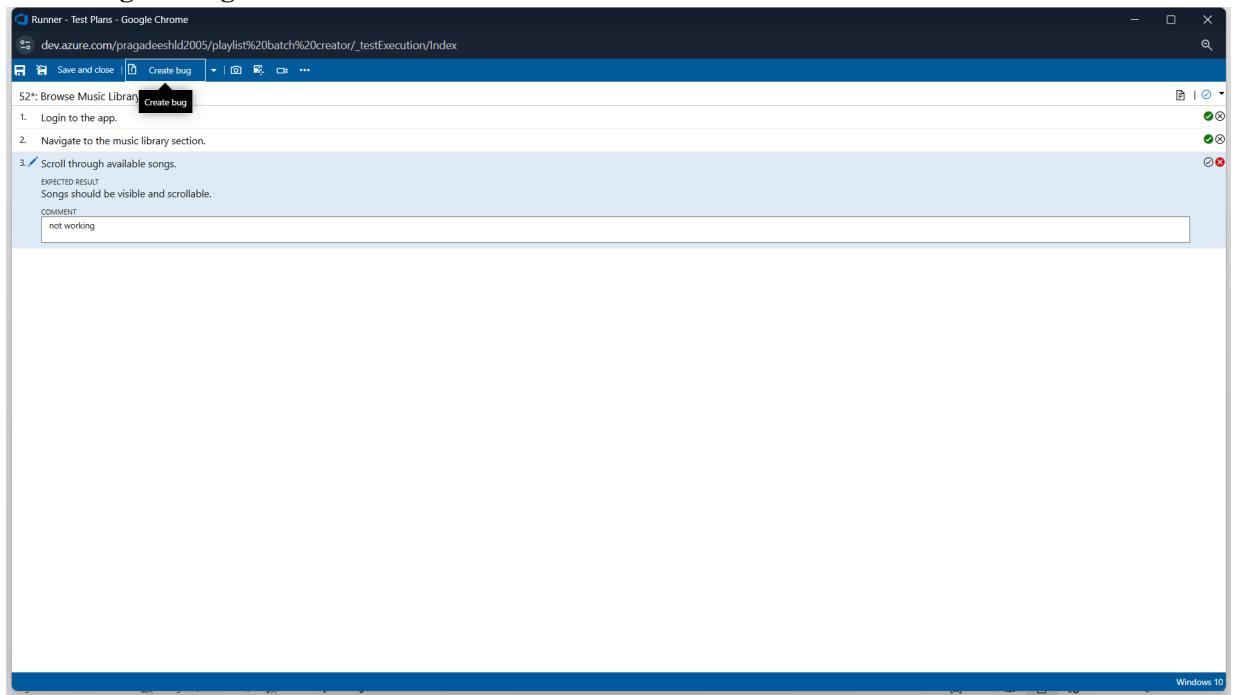
EXPECTED RESULT
Songs should be visible and scrollable.

Windows 10

6. Recording the test case



7. Creating the bug



Runner - Test Plans - Google Chrome
dev.azure.com/pragadeeshd2005/playlist%20batch%20creator/_testExecution/Index

52*: Browse Music Library

1. Login to the app.
2. Navigate to the music library section.
3. Scroll through available songs.

Cannot scroll through the songs

NEW BUG *

Unassigned

0 comments Add tag

Save & Close

State: New Area: playlist batch creator
Reason: New Iteration: playlist batch creator\sprint 10

Repro Steps

20-05-2025 09:43 Bug filed on "Browse Music Library"

Step no.	Result	Title
1.	Passed	Login to the app.
2.	Passed	Navigate to the music library section.
3.	Failed	Scroll through available songs.

Expected Result
Songs should be visible and scrollable.

Comments: not working

Test Configuration: Windows 10

Planning

Resolved Reason: Story Points: Priority: 2 Severity: 3 - Medium Activity: Effort (Hours): Original Estimate: Remaining: Completed:

Deployment

To track releases associated with this work item, go to Boards in your pipeline's Options menu. Learn more about deployment status reporting

+ 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.

Development

+ Add link

Related Work

+ Add link

Add an existing work item as a parent

System Info

Windows 10

Runner - Test Plans - Google Chrome
dev.azure.com/pragadeeshd2005/playlist%20batch%20creator/_testExecution/Index

52*: Browse Music Library

1. Login to the app.
2. Navigate to the music library section.
3. Scroll through available songs.

Cannot scroll through the songs

NEW BUG *

Unassigned

0 comments Add tag

Save & Close

State: New Area: playlist batch creator
Reason: New Iteration: playlist batch creator\sprint 10

System Info

Browser - Name	Google Chrome 136
Browser - Language	en-IN
Browser - Height	864
Browser - Width	1536
Browser - User agent	Mozilla/5.0 (Windows NT 10.0; Win64; x64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/136.0.0.0 Safari/537.36
Operating system - Name	Windows NT 10.0; Win64; x64
Operating system - Architecture	x64_64
Operating system - Processor model	12th Gen Intel(R) Core(TM) i5-12450H
Operating system - Number of processors	12
Memory - Available	5609590784
Memory - Capacity	16869146624
Display - Pixels per inch (X axis)	120
Display - Pixels per inch (Y axis)	120
Display - Device pixel ratio	1.25

Discussion

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

Windows 10

8. Test case results

The screenshot shows the Azure DevOps interface for a 'Song Selection for Playlist Creation' test plan. The 'Execute' tab is selected, displaying a table of test points. One test point, 'Browse Music Library', has a status of 'Passed'. The table includes columns for Outcome,TimeStamp, Configuration, Run by, and Tester. The tester listed is Pragadeesh kumar. The table shows four rows: one Passed at 'Just now', one Passed at '2m ago', one Failed at '6m ago', and one Passed at 'Thursd...'. A link 'Open execution history for current test point' is visible at the bottom.

9. Test report summary

The screenshot shows the Azure DevOps interface for a work item titled 'BUG 70: Cannot scroll through the songs'. The 'Work items' tab is selected. The work item details include:

- Title:** BUG 70: Cannot scroll through the songs
- State:** New
- Reason:** New
- Retro Step:** Active
- Iteration:** playlist batch creator/sprint 10
- Comments:** No one selected
- Test Configuration:** Windows 10
- System Info:** Browser - Name: Google Chrome 136

The work item is divided into several sections:

- Planning:** Resolved Reason, Story Points, Priority (2), Severity (3 - Medium), Activity.
- Deployment:** To track releases associated with this item, go to Releases and turn on deployment status reporting for Boa your pipeline's Options menu. Learn 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.
- Effort (Hours):** Original Estimate, Remaining, Completed.
- Related Work:** Add link, Add an existing work item as a parent.

At the bottom, it shows 'Tested By' with a link to 'Browse Music Library' and 'Updated Thursday'.

- Assigning bug to the developer and changing state

Screenshot of Azure DevOps Work Items page showing a bug report.

Bug 70* Cannot scroll through the songs

Repro Steps:

- Step no. 1 Result Passed Title Login to the app.
- Step no. 2 Result Passed Title Navigate to the music library section.
- Step no. 3 Result Failed Title Scroll through available songs.

Comments: not working

Test Configuration: Windows 10

System Info: Browser - Name Google Chrome 136

Planning:

- Resolved Reason: Bug filed on "Browse Music Library"
- Story Points: 1
- Priority: 2
- Severity: 3 - Medium
- Activity: 1

Deployment:

To track releases associated with this item, go to Releases and turn on deployment status reporting for your pipeline's Options menu. Learn 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.

Effort (Hours):

- Original Estimate: 1
- Remaining: 0
- Completed: 1

Related Work:

Add an existing work item as a parent: #32 Browse Music Library

Tested By: Updated Thursday ● Design

10. Progress report

Screenshot of Azure DevOps Test Plans page showing a progress report.

Progress report

Summary:

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

Outcome trend:

Date	Passed	Failed
2025-05-06	0	0
2025-05-07	0	0
2025-05-08	0	0
2025-05-09	0	0
2025-05-10	0	0
2025-05-11	0	0
2025-05-12	0	0
2025-05-13	0	0
2025-05-14	0	0
2025-05-15	1	0
2025-05-16	1	0
2025-05-17	1	0
2025-05-18	1	0
2025-05-19	1	0
2025-05-20	1	0

Details:

Test plan name	Test points	Run %	Passed %	Failed %	Not run count
> Song Selection for Playlist Creation	2	100	100	0	0

Progress report

Summary

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

Outcome trend

Last 14 Days

The chart shows a single test run starting on May 12, 2025, with all 2 test points passing.

Test plan name	Test points	Run %	Passed %	Failed %	Not run count
> Payment & Download	2	100	100	0	0

11. Changing the test template

Organization Settings

General

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

Security

- Security overview
- Policies
- Permissions

Boards

Process

Pipelines

- Agent pools
- Settings
- Deployment pools

All processes

Processes

Name	Description	Team
Basic (default)	This template is flexible for any process and great for teams getting started with Azure DevOps.	0
Agile	This template is flexible and will work great for most teams using Agile planning methods, including those pract... Scrum	2
CMMI	This template is for more formal projects requiring a framework for process improvement and an auditable reco... CMMI	0

The screenshot shows the 'All processes' list in the Azure DevOps Settings - Process page. The 'Processes' tab is selected. The table lists several process templates:

Name	Description	Team
Basic (default)	This template is flexible for any process and great for teams getting started with Azure DevOps.	0
Agile	This template is flexible and will work great for most teams using Agile planning methods, including those pract...	2
Scrum	This template is for teams who follow the Scrum framework.	0
CMMI	This template is for more formal projects requiring a framework for process improvement and an auditable reco...	0

The left sidebar shows the 'Process' section under 'Boards'.

The screenshot shows the 'All processes' list in the Azure DevOps Settings - Process page. The 'Processes' tab is selected. A new process template, '231501117', has been added under the 'Agile' category. The table lists the process templates:

Name	Description	Team
Basic (default)	This template is flexible for any process and great for teams getting started with Azure DevOps.	0
Agile	This template is flexible and will work great for most teams using Agile planning methods, including those pract...	2
231501117		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 improvement and an auditable reco...	0

The left sidebar shows the 'Process' section under 'Boards'.

12. View the new test case template

The screenshot shows the 'Add a field to Test Case' dialog box over a background of the Azure DevOps settings interface. The dialog has tabs for 'Definition', 'Options', and 'Layout'. The 'Definition' tab is selected, showing fields for 'Name' (Type1), 'Type' (Text (single line)), and 'Description'. The 'Options' tab shows 'Acceptance Criteria' as the field's purpose. The 'Layout' tab is visible at the bottom. The background shows the 'Process' section of the settings, with 'Steps' selected.

The screenshot shows the 'Work item types' page in the Azure DevOps settings. The 'Projects' tab is selected. A table lists work item types, including 'playlist batch creator' which has a description: 'The Azure Music Playlist Batch Creator is a cloud-based solution designed for bulk playlist creation and management.' The background shows the 'Process' section of the settings, with 'Steps' selected.

The screenshot shows the Azure DevOps Settings - Process page for a specific process. The left sidebar is titled "Organization Settings" and lists various categories like General, Security, Boards, Pipelines, and Process. The "Process" category is selected. The main content area is titled "All processes > 231501117 > Test Case". It displays a configuration interface with tabs for "Steps", "Summary", and "Associated Aut...". The "Steps" tab is active, showing a "Text (multiple lines)" input field. To the right, there are sections for "Recent test results", "Deployment", "Development", "Related Work", and "Status". Each section has its own sub-fields, such as "Type1" for "Recent test results" and "Priority" for "Status". A search bar at the top right contains the placeholder "Search".

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	
DATE:	

Ci/CD PIPELINES IN AZURE

AIM:

To implement a Continuous Integration and Continuous Deployment (CI/CD) pipeline in Azure DevOps for automating the build, testing, and deployment process of the Student Management System, ensuring faster delivery and improved software quality.

PROCEDURE:

Steps to Create and implement pipelines in Azure:

1. Sign in to Azure DevOps and Navigate to Your Project
Log in to dev.azure.com, select your organization, and open the project where your Student Management System code resides.
2. Connect a Code Repository (Azure Repos or GitHub)
Ensure your application code is stored in a Git-based repository such as Azure Repos or GitHub. This will be the source for triggering builds and deployments in your pipeline.
3. Create a New Pipeline
Go to the Pipelines section on the left panel and click “Create Pipeline”. Choose your source (e.g., Azure Repos Git or GitHub), and then select the repository containing your project code.
4. Choose the Pipeline Configuration
You can select either the YAML-based pipeline (recommended for version control and automation) or the Classic Editor for a GUI-based setup.
If using YAML, Azure DevOps will suggest a template or allow you to define your own.
5. Define Build Stage (CI - Continuous Integration) from YAML file
6. Install dependencies (e.g., npm install, dotnet restore)
7. Build the application (dotnet build, npm run build)
8. Run unit tests (dotnet test, npm test)
9. Publish build artifacts to be used in the release stage

10. Save and Run the Pipeline for the First Time

Save the YAML or build definition and click “Run”.

Azure will fetch the latest code and execute the defined build and test stages.

11. Configure Continuous Deployment (CD)

Navigate to the Releases tab under Pipelines and click “New Release Pipeline”. Add an Artifact (from the build stage) and create a new Stage (e.g., Development, Production).

12. Configure the CD stage with deployment tasks such as deploying to Azure App Service, running database migrations or scripts, and restarting services using the Azure App Service Deploy task linked to your subscription and app details.

13. Set Triggers and Approvals

Enable continuous deployment trigger so the release pipeline runs automatically after a successful build.

For production environments, configure pre-deployment approvals to ensure manual verification before release.

14. Monitor Pipelines and Manage Logs

View all pipeline runs under the Runs section.

Check logs for build/test/deploy stages to debug any errors.

You can also integrate email alerts or Microsoft Teams notifications for build failures.

15. Review and Maintain Pipelines

Regularly update your pipeline tasks or YAML configurations as your application grows. Ensure pipeline runs are clean and artifacts are stored securely.

Integrate quality gates and code coverage policies to maintain code quality.

The screenshot shows the 'Runs' tab of the Pipeline interface. It lists two recent CI runs:

- #20250517.1 • Set up CI with Azure Pipelines
Manually triggered for main at 2428baeb. Status: Succeeded (Saturday, 16s)
- #20250516.1 • Set up CI with Azure Pipelines
Manually triggered for main at 2428baeb. Status: Succeeded (Friday, 24s)

On the left sidebar, the 'Pipelines' section is selected. The top navigation bar shows the URL as dev.azure.com/pragadeeshld2005/playlist%20batch%20creator/_build?definitionId=4.

The screenshot shows the details for the first CI run (#20250517.1). The summary information includes:

- This run is being retained as one of 3 recent runs by main (Branch).
- Manually run by Pragadeesh kumar L D
- Repository and version: Playlist_Batch_Creator, main at 2428baeb
- Time started and elapsed: Sat at 2:16 PM, 16s
- Related: 0 work items, 1 published
- Tests and coverage: Get started

The 'Jobs' section shows a single job named 'Job' with a status of Success and a duration of 11s.

On the left sidebar, the 'Pipelines' section is selected. The top navigation bar shows the URL as dev.azure.com/pragadeeshld2005/playlist%20batch%20creator/_build?definitionId=5&view=results.

The screenshot shows the Azure DevOps Pipelines results page for a run titled '#20250516.1 • Set up CI with Azure Pipelines'. The pipeline name is 'Playlist_Batch_Creator'. The run was manually triggered by Pragadeesh kumar L D. The repository and version information is listed as 'Playlist_Batch_Creator' at 'main' commit '2428baeb'. The run started on Fri at 2:15 PM and took 24s. There are 0 work items and 1 published artifact. The 'Summary' tab is selected, showing a single job named 'Job' which completed successfully in 7s. The pipeline configuration is visible on the left sidebar under the 'Pipelines' section.

RESULT:

Thus the pipelines for the given project “Student Management System has been executed successfully

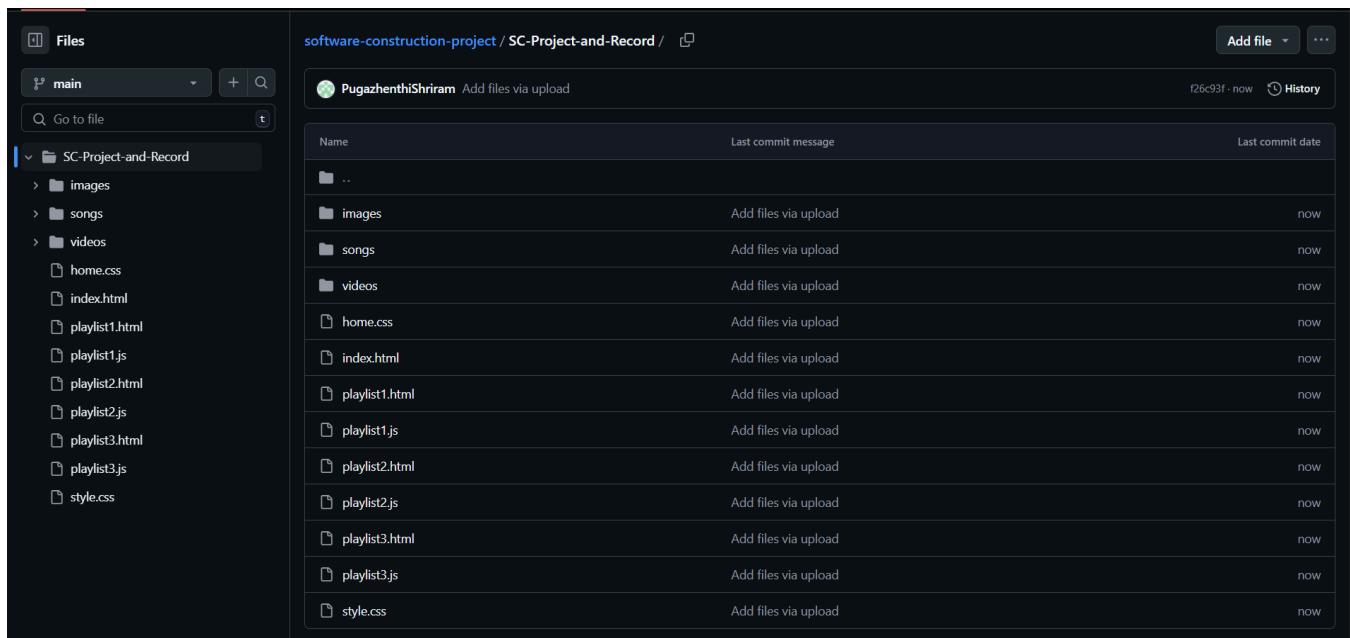
EXP NO: 10

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 interface for a project named "SC-Project-and-Record". The left sidebar displays the file structure:

- main
- SC-Project-and-Record
 - images
 - songs
 - videos
 - home.css
 - index.html
 - playlist1.html
 - playlist1.js
 - playlist2.html
 - playlist2.js
 - playlist3.html
 - playlist3.js
 - style.css

The right pane shows the list of files with their last commit details:

Name	Last commit message	Last commit date
..	Add files via upload	now
images	Add files via upload	now
songs	Add files via upload	now
videos	Add files via upload	now
home.css	Add files via upload	now
index.html	Add files via upload	now
playlist1.html	Add files via upload	now
playlist1.js	Add files via upload	now
playlist2.html	Add files via upload	now
playlist2.js	Add files via upload	now
playlist3.html	Add files via upload	now
playlist3.js	Add files via upload	now
style.css	Add files via upload	now

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