

EXP NO: 1

## AZURE DEVOPS ENVIRONMENT SETUP

### Aim:

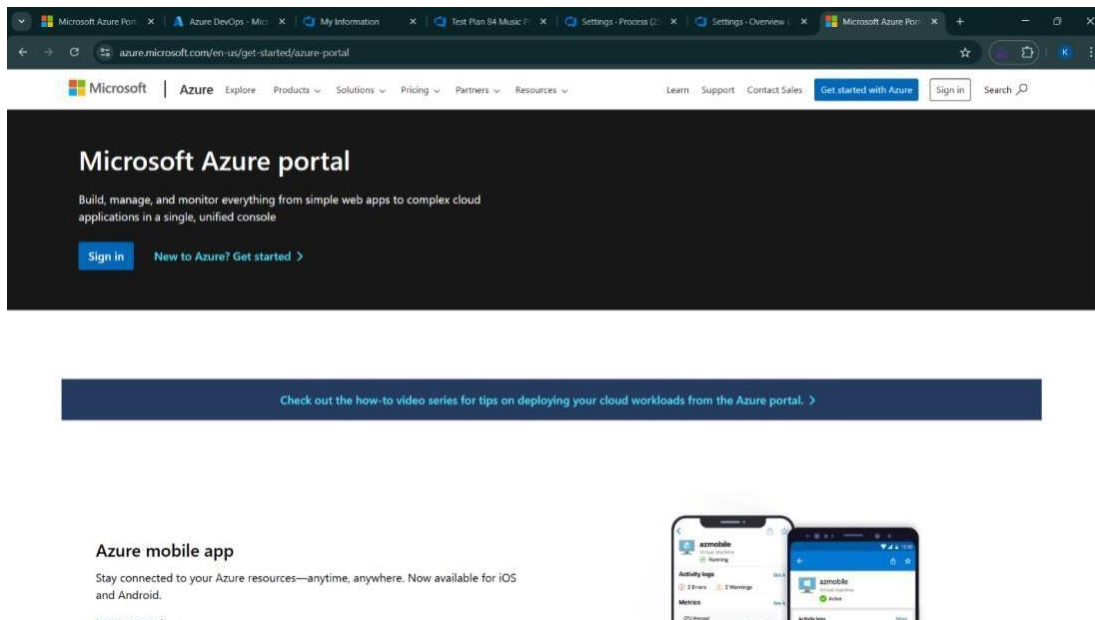
To set up and access the Azure DevOps environment by creating an organization through the Azure portal.

### INSTALLATION

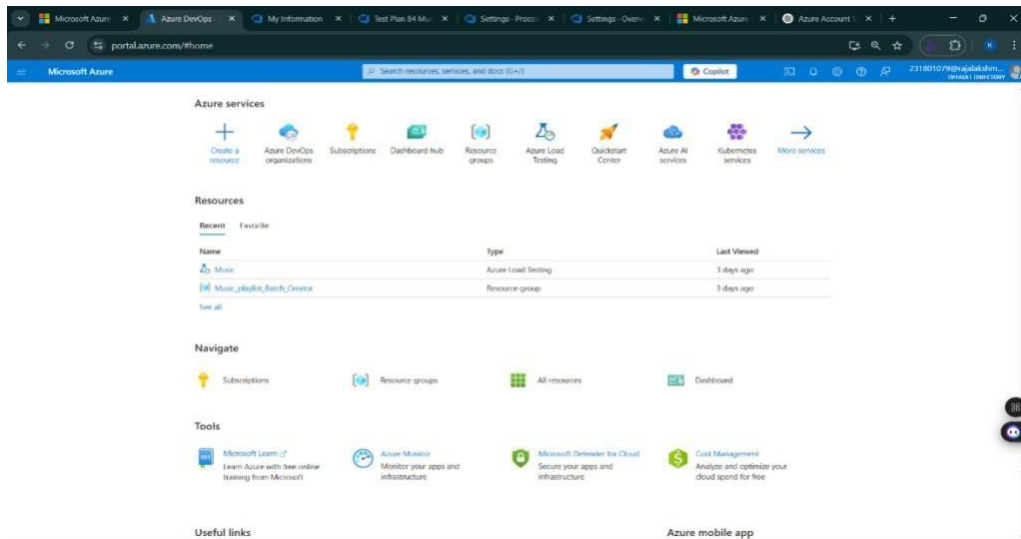
1. Open your web browser and go to the Azure website: <https://azure.microsoft.com/en-us/get-started/azure-portal>.

Sign in using your Microsoft account credentials.

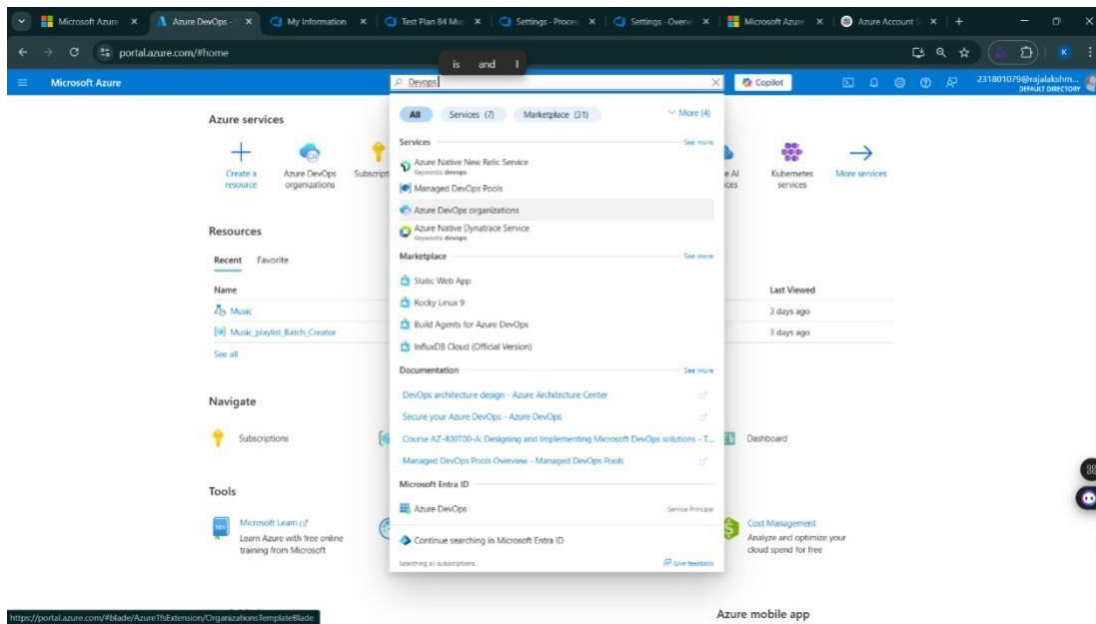
If you don't have a Microsoft account, you can create one here: <https://signup.live.com/?lic=1>



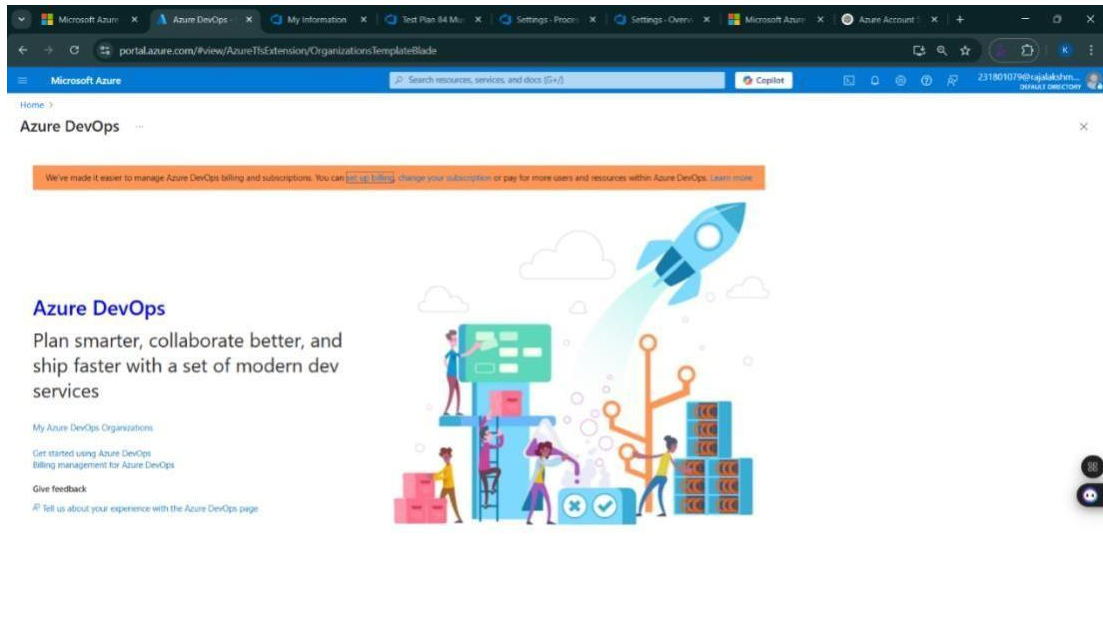
## 2. Azure home page



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



4. Click on the *My Azure DevOps Organization* link and create an organization and you should be taken to the Azure DevOps Organization Home page.



**Result:**

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

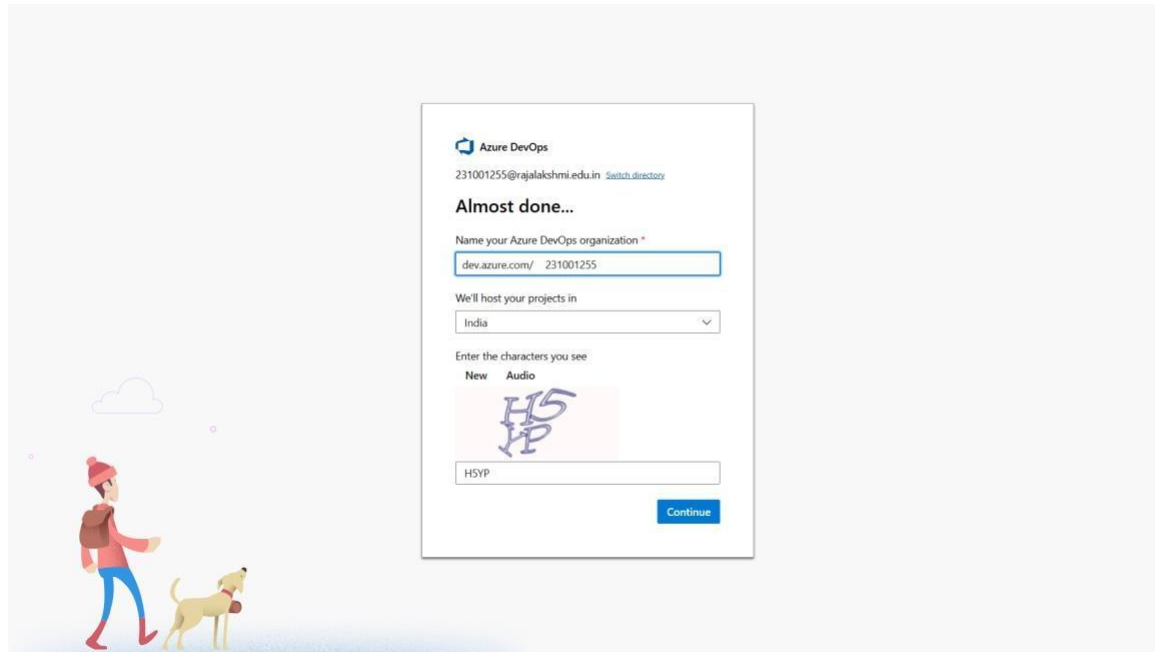
EXP NO: 2

## 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

- After the organization is set up, you'll need to create your first **project**. This is where you'll begin to manage code, pipelines, work items, and more.
- On the organization's **Home page**, click on the **New Project** button.
- Enter the project name, description, and visibility options:
  - Name:** Choose a name for the project (e.g., **LMS**).
  - Description:** Optionally, add a description to provide more context about the project.
  - Visibility:** Choose whether you want the project to be **Private** (accessible only to those invited) or **Public** (accessible to anyone).
- Once you've filled out the details, click **Create** to set up your first project.

YV

## Create a project to get started


Project name \*

Fitness Application

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 

Git


Agile

+ Create project

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.

Microsoft

Yogesh V Sign out



Yogesh V

231001255@rajalakshmi.edu.in

Microsoft account

India

231001255@rajalakshmi.edu.in

Visual Studio Dev Essentials

Get everything you need to build and deploy your app on any platform.

Use your benefits

Azure DevOps Organizations

Create new organization

dev.azure.com/231001255 (Owner)

Create a Team Project and start collaborating with your team now!

New project

Actions

Open in Visual Studio

dev.azure.com/231001248 (Member)

## 4. Project dashboard

Azure DevOps

231001248

Fitness Application

Overview

Summary

Search

Private

Invite

Fitness Application

Overview

Summary

Dashboards

Wiki

Boards

Repos

Pipelines

Test Plans

Artifacts

FA Fitness Application

About this project

Like

0

Project stats

Period: Last 7 days

Boards

0 Work items created

0 Work items completed

Repos

0 Pull requests opened

1 Commits by 1 authors

Members

5

YV

VS

TV

YT

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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.

Order	Work Item Type	Title	State	Story...	Value Area
1	User Story	Food Logging from Database	New	3	Business
2	User Story	Personalized Workout Plan Generation	New	8	Business
3	User Story	AI-Based Workout Recommendations	New	13	Business
4	User Story	Video Demonstrations for Exercises	New	13	Business
5	User Story	Rest Timer and Workout Tracking	New	3	Business
6	User Story	Workout Plan Sharing	New	5	Business
7	User Story	Integration with Wearable Devices	New	8	Business
8	User Story	Adaptive Workout Plan Based on Availability	New	5	Business
9	User Story	Manual Food Entry	New	3	Business
10	User Story	Water Intake Tracking	New	3	Business
11	User Story	Daily Calorie Goal Setting	New	5	Business
12	User Story	Meal Time Reminders	New	3	Business
13	User Story	Macronutrient Breakdown Visualization	New	13	Business
14	User Story	AI-Based Meal Recommendations	New	8	Business
15	User Story	code	New		Business
16	User Story	Email Verification	New		Business

Microsoft Sign out

**Yogesh V**  
231001255@rajalakshmi.edu.in  
[My Microsoft account](#)  
[Switch directory](#)

Sign in with a different account

**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 interface for a project named 'Fitness Application'. The 'Work items' section is active, displaying a list of items. The table below represents the data shown in the screenshot:

ID	Title	Assigned To	State	Area Path	Tags
16	Video Demonstrations for Exercises	Unassigned	New	Fitness Application	
15	AI-Based Workout Recommendations	Unassigned	New	Fitness Application	
41	Email Notification for Account Changes	Unassigned	New	Fitness Application	
9	Two-Factor Authentication (2FA)	Unassigned	New	Fitness Application	
8	Forgot Password	Unassigned	New	Fitness Application	
7	User Login with Credentials	Unassigned	New	Fitness Application	
6	User Registration with Email	Unassigned	New	Fitness Application	
40	Email Verification	Unassigned	New	Fitness Application	
39	code	Unassigned	New	Fitness Application	
38	Personalization and Smart Adaptation	Unassigned	New	Fitness Application	
36	User Customization and Adaptability	Unassigned	New	Fitness Application	
34	Email-Based User Registration & Account Setup	Unassigned	New	Fitness Application	
5	User Registration and Authentication	Unassigned	New	Fitness Application	
21	Diet and Nutrition Logging	Unassigned	New	Fitness Application	
13	Workout Plans and Recommendations	Unassigned	New	Fitness Application	

## 1. Fill in Epics

The screenshot shows the details of a work item titled 'User Registration and Authentication' under the 'Fitness Application' project. The work item is an Epic. The 'Description' field is empty, and the 'Discussion' section shows a comment box. The 'Planning' section includes fields for Priority (2), Risk, Effort, Business Value, Time Criticality, Start Date, and Target Date. The 'Deployment' section includes a link to track releases. The 'Development' section includes a link to add a link. The 'Related Work' section includes a link to add a link.

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## 2.Fill in Features

The screenshot shows the Azure DevOps interface for a project named "Fitness Application". The left sidebar contains navigation options: Overview, Boards, Work items, Backlogs, Sprints, Queries, Delivery Plans, Analytics views, Repos, Pipelines, Test Plans, and Artifacts. The main area displays "Feature 38: Personalization and Smart Adaptation". The "Description" tab is active, showing a list of 10 features: 1. Food Diary & Meal Logging, 2. AI-Powered Meal Suggestions, 3. Calorie & Macronutrient Tracking, 4. Integration with Wearables & Health Apps, 5. Water Intake Tracking, 6. Meal Planning & Scheduling, 7. Food Insights & Analytics, 8. Diet Compatibility & Restrictions, 9. Community & Social Features, and 10. AI-Powered Chatbot for Nutrition Guidance. The "Planning" tab shows fields for Priority (2), Risk, Effort, Business Value, Time Criticality, Start Date, and Target Date. The "Deployment" tab shows instructions for tracking releases and linking to Azure Repos. The "Development" tab shows instructions for linking to Azure Repos and creating a branch. The "Related Work" tab shows a link to "21 Diet and Nutrition Logging".

## 3.Fill in User Story Details

The screenshot shows the Azure DevOps interface for a project named "Fitness Application". The left sidebar contains navigation options: Overview, Boards, Work items, Backlogs, Sprints, Queries, Delivery Plans, Analytics views, Repos, Pipelines, Test Plans, and Artifacts. The main area displays "User Story 40: Email Verification". The "Description" tab is active, showing the user story: "As a newly registered user, I want to verify my email address after registration, so that my account is activated and I can begin using the platform." The "Acceptance Criteria" tab shows two criteria: 1. A verification email with a unique link is sent to the registered email. 2. Clicking the verification link activates the user's account. The "Discussion" tab shows a comment box with the text "Add a comment. Use # to link a work item, @ to mention a person, or ! to link a pull request." The "Planning" tab shows fields for Story Points, Priority (2), and Risk. The "Classification" tab shows fields for Value area and Business. The "Deployment" tab shows instructions for tracking releases and linking to Azure Repos. The "Development" tab shows instructions for linking to Azure Repos and creating a branch. The "Related Work" tab shows a link to "11 User Registration and Authentication".

**Result:**

Thus, the creation of epics, features, user story and task has been created successfully.

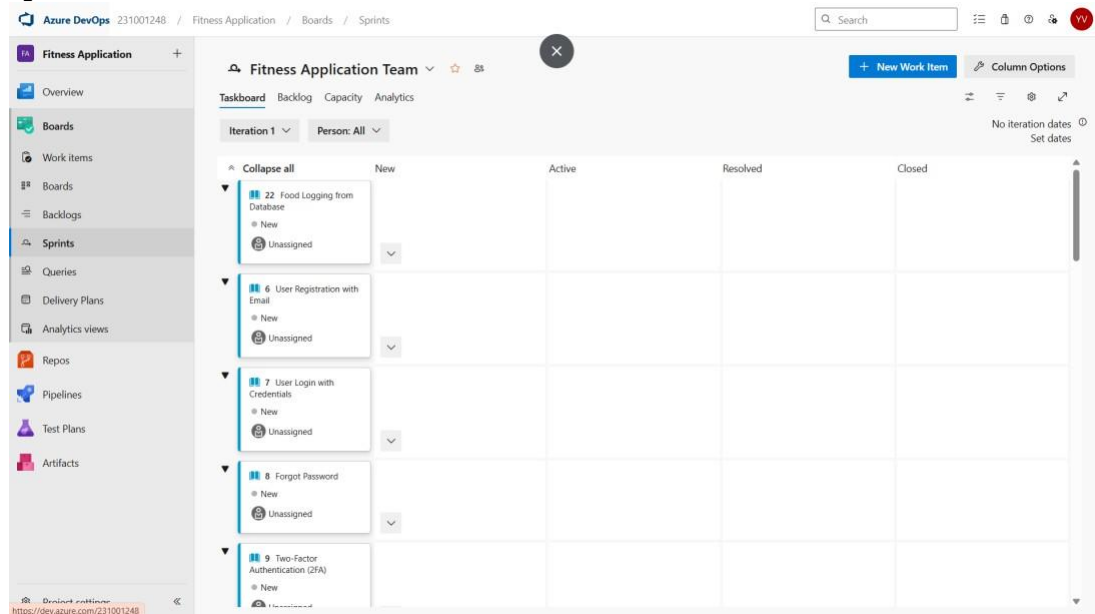
EXP NO: 4

# SPRINT PLANNING

## Aim:

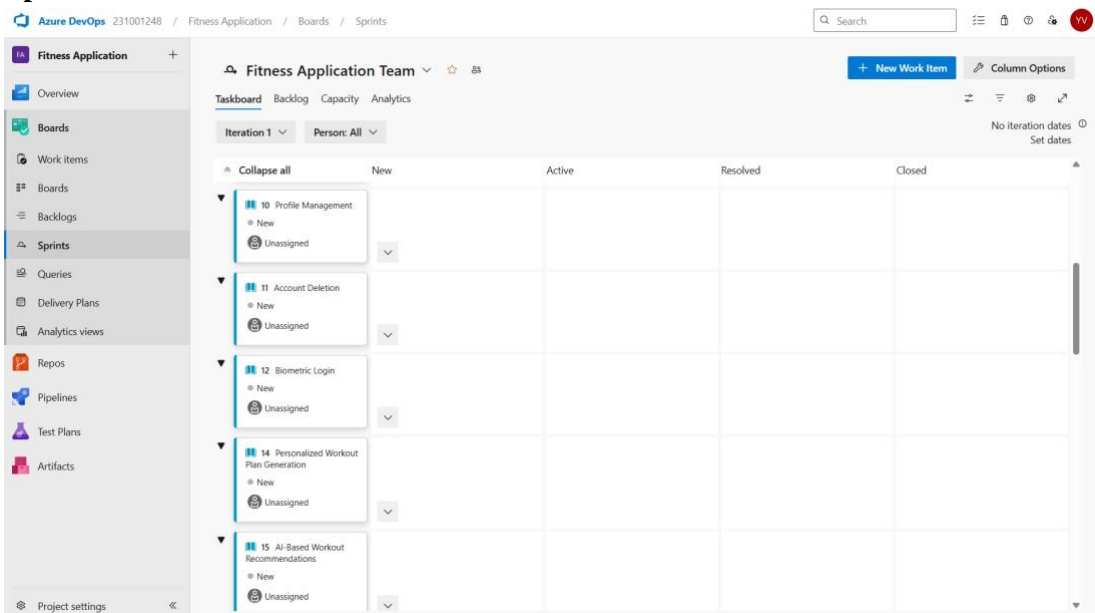
To assign user story to specific sprint for the Fitness Application Project.

## Sprint Planning Sprint 1



The screenshot shows the Azure DevOps Sprints board for the 'Fitness Application Team'. The board is titled 'Sprint 1' and is currently in 'Iteration 1'. The left sidebar shows the project structure with 'Sprints' selected. The main area displays a Kanban board with columns: 'New', 'Active', 'Resolved', and 'Closed'. There are five work items in the 'New' column, all marked as 'Unassigned'. The work items are: 22 Food Logging from Database, 6 User Registration with Email, 7 User Login with Credentials, 8 Forgot Password, and 9 Two-Factor Authentication (2FA). Each item has a 'New' status and an 'Unassigned' icon. The board also shows a search bar, a 'New Work Item' button, and a 'Column Options' menu.

## Sprint 2



The screenshot shows the Azure DevOps Sprints board for the 'Fitness Application Team'. The board is titled 'Sprint 2' and is currently in 'Iteration 1'. The left sidebar shows the project structure with 'Sprints' selected. The main area displays a Kanban board with columns: 'New', 'Active', 'Resolved', and 'Closed'. There are five work items in the 'New' column, all marked as 'Unassigned'. The work items are: 10 Profile Management, 11 Account Deletion, 12 Biometric Login, 14 Personalized Workout Plan Generation, and 15 AI-Based Workout Recommendations. Each item has a 'New' status and an 'Unassigned' icon. The board also shows a search bar, a 'New Work Item' button, and a 'Column Options' menu.

## Sprint 3

Azure DevOps 231001248 / Fitness Application / Boards / Sprints

Search

Fitness Application Team

+ New Work Item Column Options

Taskboard Backlog Capacity Analytics

Iteration 1 Person: All

No iteration dates Set dates

Collapse all	New	Active	Resolved	Closed
16 Video Demonstrations for Exercises New Unassigned				
17 Rest Timer and Workout Tracking New Unassigned				
18 Workout Plan Sharing New Unassigned				
19 Integration with Wearable Devices New Unassigned				
20 Adaptive Workout Plan Based on Availability New				

## Sprint 4

Azure DevOps 231001248 / Fitness Application / Boards / Sprints

Search

Fitness Application Team

+ New Work Item Column Options

Taskboard Backlog Capacity Analytics

Iteration 1 Person: All

No iteration dates Set dates

Collapse all	New	Active	Resolved	Closed
23 Manual Food Entry New Unassigned				
24 Water Intake Tracking New Unassigned				
25 Daily Calorie Goal Setting New Unassigned				
26 Meal Time Reminders New Unassigned				
27 Macronutrient Breakdown Visualization New Unassigned				

**Result:**

The Sprints are created for the Fitness Application Project.

EXP NO: 5

# POKER ESTIMATION

## Aim:

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

## Poker Estimation

The screenshot shows a Jira User Story card titled "22 Food Logging from Database". The card is in the "New" state and is part of the "Fitness Application" area. It includes a description, acceptance criteria, and a discussion section. The right sidebar contains sections for Planning, Classification, Deployment, Development, and Related Work.

**User Story 22**

22 Food Logging from Database

No one selected 0 Comments Add Tag

Save and Close Follow

Updated by Tharun V: Yesterday

Details

**Description**

As a user, I want to log my daily meals from a food database, so that I can track my calorie intake easily.

**Acceptance Criteria**

1. Users can search for food items from a preloaded database.
2. Users can add multiple food items to a meal.
3. The system automatically calculates calories, protein, carbs, and fat.

**Discussion**

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

[switch to Markdown editor](#)

**Planning**

Story Points: 3  
Priority: 2  
Risk:

**Classification**

Value area: Business

**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

Parent

38 Personalization and Smart Adaptation  
Updated Mar 27 @ New

## Result:

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

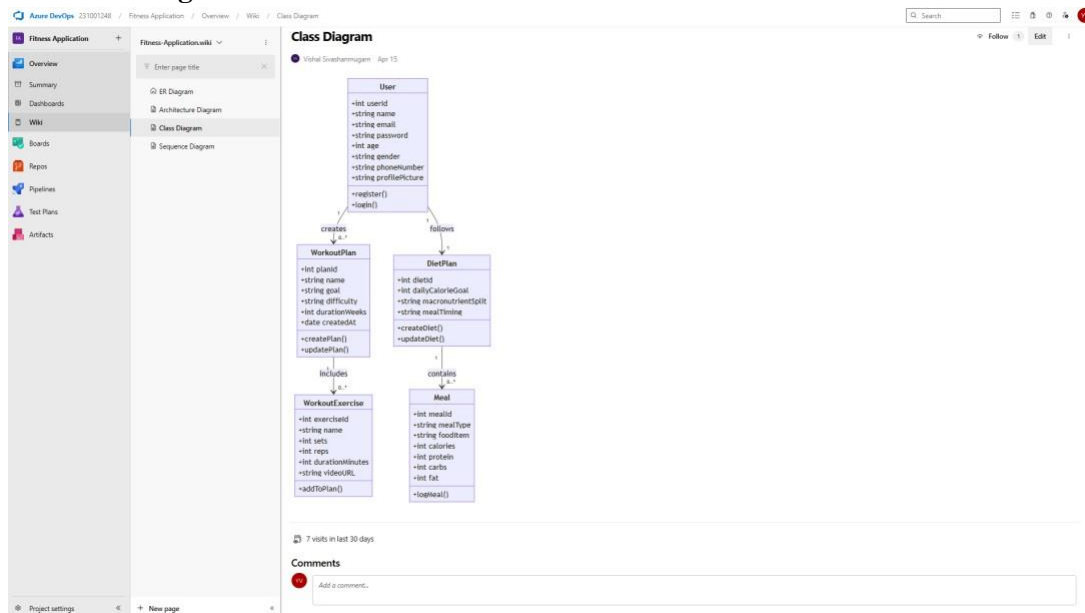
EXP NO: 6

## DESIGNING CLASS AND SEQUENCE DIAGRAMS FOR PROJECT ARCHITECTURE

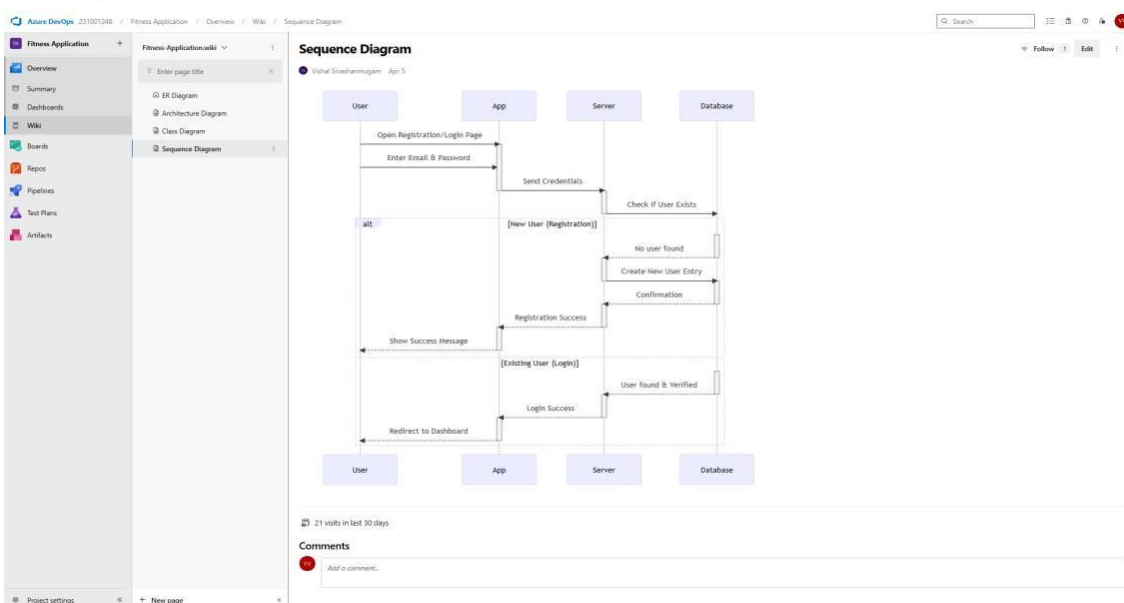
### Aim:

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 Fitness Application.

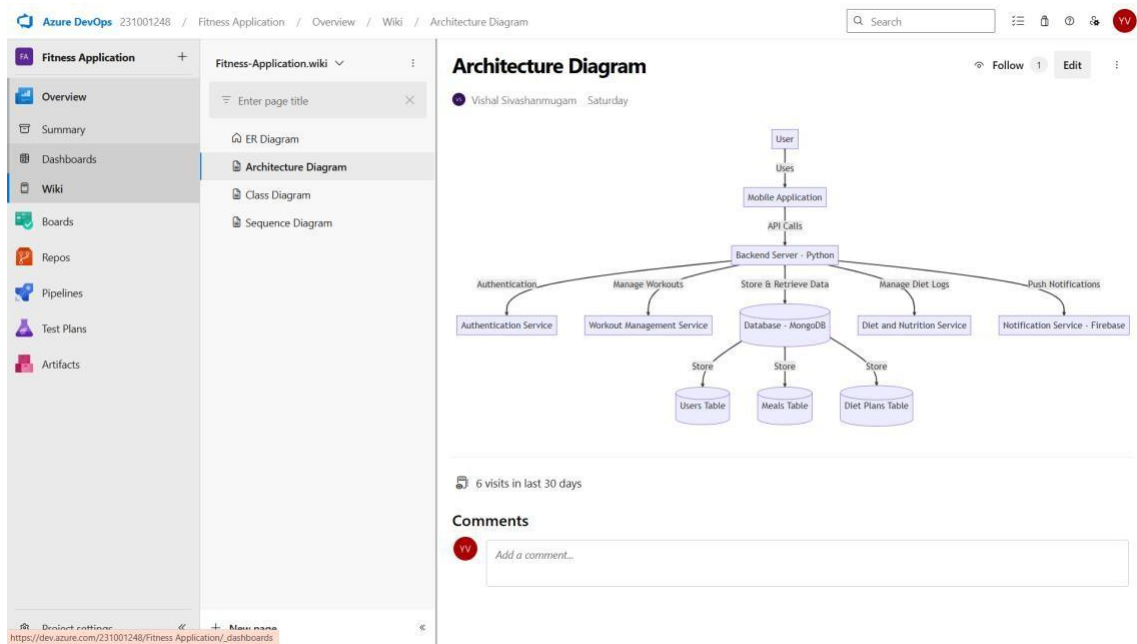
EXP NO: 7

## DESIGNING ARCHITECTURAL AND ER DIAGRAMS FOR PROJECT STRUCTURE

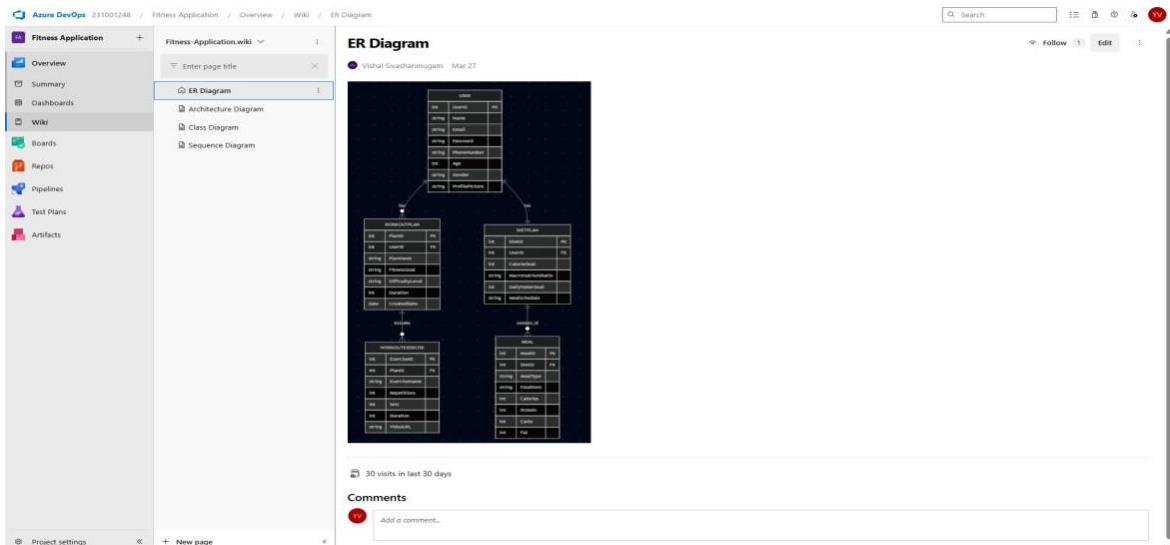
### Aim:

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 Fitness Application.

**EXP NO: 8**

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

**Aim:**

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

**Test Planning and Test Case**

**Test Case Design Procedure**

**1. Identify Core Features**

- o Include modules like Signup/Login, Workout Tracking, and Goal Setting.
- o Cover health data monitoring, progress reports, and recommendations.

**2. Define User Actions**

- o Simulate real user behaviour (e.g., logging in, starting a workout).
- o Ensure actions align with functional and UI expectations.

**3. Happy Path Testing**

- o Validate normal workflows like successful login or workout completion.
- o Confirm system responds correctly to expected inputs.

**4. Error Path Testing**

- o Test invalid scenarios like incorrect login or missing health data.
- o Validate proper error messages and system stability.

**5. Step-wise Detailing**

- o Break test cases into clear action-result pairs.
- o Make each step easy to automate and verify.

**6. Clear Naming & IDs**

- o Use readable, unique IDs (e.g., TC01 – Successful Goal Set).
- o Helps in mapping tests to user stories and debugging.

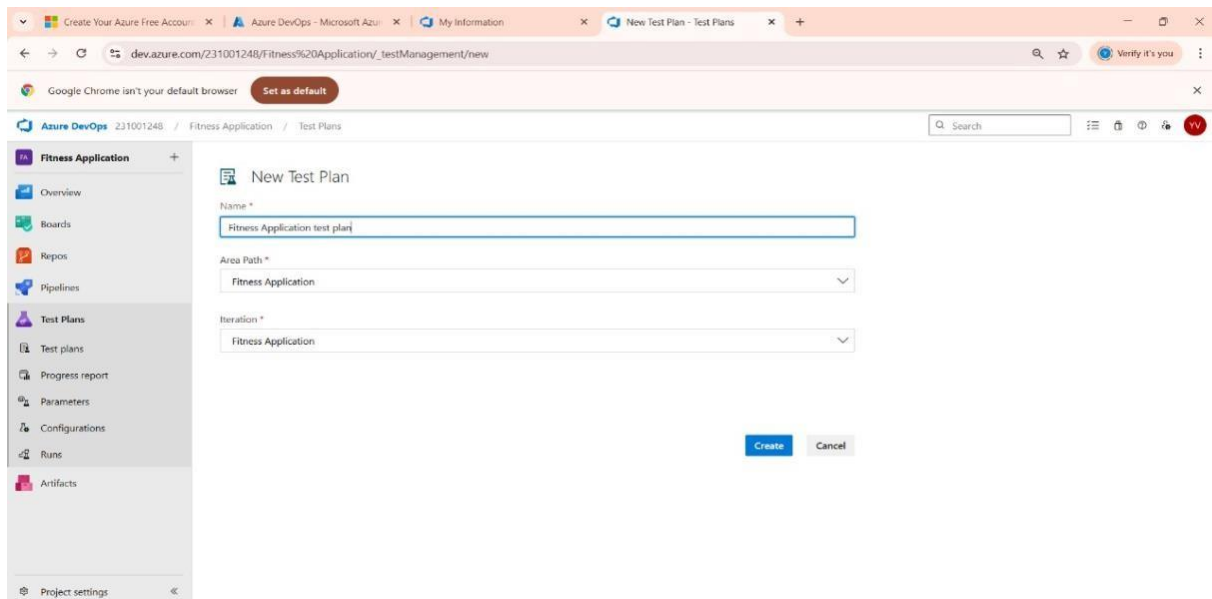
**7. Organize Test Suites**

- o Group by modules: Login, Workouts, Goals, Reports, etc.
- o Improves structure and test execution flow in Azure DevOps.

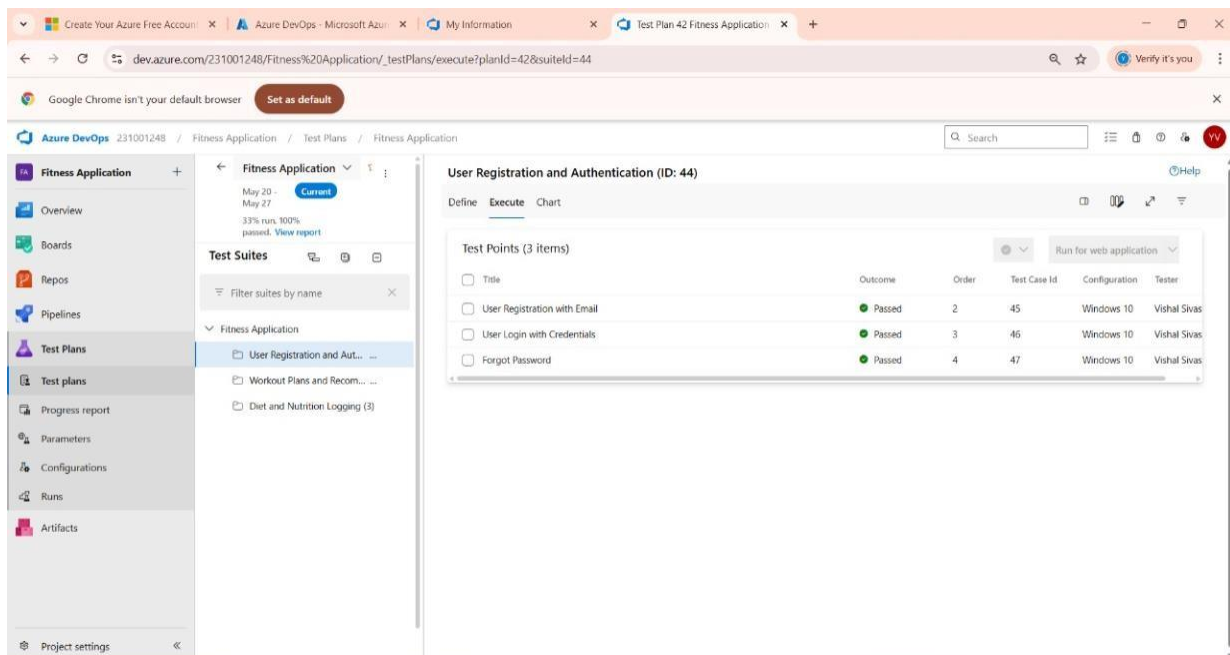
**8. Prioritize & Review**

- o Mark key features like health tracking as high-priority.
- o Review all test cases for completeness and traceability

## 1. New test plan



## 2. Test suite



### 3. Test case

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

Fitness Application – Test Plans

#### USER STORIES

- As a user, I want to sign up and log in securely so that I can track my fitness progress. (ID: 101)
- As a user, I need to view my daily workout summary in one place. (ID: 102)
- As a user, I should be able to start and stop a workout session easily. (ID: 103).
- As a user, I should be able to set and update fitness goals like steps or calories. (ID: 104).
- As a user, I need to receive real-time health stats like heart rate and calories burned. (ID: 105).

#### Test Suites

##### Test Suit: TS01 - User Login & Access (ID: 101)

###### 1. TC01 – Successful Sign Up

- **Action:**
  - Go to the Sign-Up page.
  - Enter valid name, email, and password.
  - Click "Sign Up".
- **Expected Results:**
  - Sign-Up form is displayed.
  - Fields accept values without error.
  - Account is created, and the user is redirected to the dashboard.
- **Type:** Happy Path

###### 2. TC02 – Secure Login

- **Action:**
  - Go to the Login page.
  - Enter valid email and password.
  - Click on "Login".
- **Expected Results:**
  - Login form is displayed.
  - Fields accept data without error.
  - User is logged in and redirected to the dashboard.
- **Type:** Happy Path

###### 3. TC03 – Sign Up with Existing Email

- **Action:**
  - Go to the Sign-Up page.
  - Enter a name and an already registered email.
  - Click on "Sign Up".
- **Expected Results:**

- Fields accept data.
- Error message "Email already registered" is displayed.
- **Type:** Error Path

#### 4. TC04 – Login with Wrong Password

- **Action:**
  - Go to the Login page.
  - Enter valid email and incorrect password.
  - Click on "Login".
- **Expected Results:**
  - Input is accepted.
  - Error message "Invalid username or password" is shown.
- **Type:** Error Path

### Test Suit: TS02 – Workout Session (ID: 103)

#### 1. TC05 – Start Workout Session

- **Action:**
  - Log in successfully.
  - Navigate to "Workout" section.
- **Expected Results:**
  - Workout session begins, timer starts, and tracking UI is displayed.
- **Type:** Happy Path

#### 2. TC06 – Workout Session without Internet

- **Action:**
  - Disconnect from the internet.
  - Attempt to start a workout session.
- **Expected Results:**
  - Network is offline.
  - Warning message "Cannot sync data. Workout will be saved offline." is shown.
- **Type:** Error Path

### Test Suit: TS03 - Real-Time Fitness Data (ID: 102)

#### 1. TC07 – Display Live Heart Rate

- **Action:**
  - Connect fitness band.
  - Observe heart rate panel.
- **Expected Results:**
  - Real-time heart rate is displayed and updates continuously.
- **Type:** Happy Path

#### 2. TC08 – No Heart Rate Data

- **Action:**

- Start a workout session without connecting a fitness band.
  - Observe the heart rate panel.
- **Expected Results:**
  - Heart rate panel shows "No device connected" or fallback message.
- **Type:** Error Path

#### **Test Suit: TS04 - Workout Editing (ID: 103)**

##### **1. TC09 – Rename Workout Successfully**

- **Action:**
  - Navigate to "My Workout".
  - Click "Rename" next to a workout.
  - Enter a new name and click "Save".
- **Expected Results:**
  - Workout name updates successfully.
- **Type:** Happy Path

##### **2. TC10 – Rename with Blank Name**

- **Action:**
  - Click "Rename" on a workout.
  - Leave the field blank.
  - Click "Save".
- **Expected Results:**
  - Error message "Workout name cannot be empty" is shown.
- **Type:** Error Path

##### **3. TC11 – Change Exercise Order in Workout**

- **Action:**
  - Open a workout.
  - Drag and drop exercises to reorder.
  - Click "Save".
- **Expected Results:**
  - Workout order is updated and saved.
- **Type:** Happy Path

##### **4. TC12 – Change Exercise Order Fails Due to Network Error**

- **Action:**
  - Login and go to "My Workouts".
  - Select a workout.
  - Go offline or simulate server error.
  - Reorder exercise and click "Save Order".
- **Expected Results:**
  - Error message: "Failed to update order. Please check your connection".
- **Type:** Error Path



## Test Suit: TS05 - Smart Workout Plan Creation (ID: 104)

### 1. TC13 – Generate Workout Plan Based on User Goals

#### ○ Action:

- Login with valid credentials.
- Click on "Generate Workout plan".
- Select categories.
- Click "Generate plan".

#### ○ Expected Results:

- Workout is generated based on selected goal and user profile.

#### ○ Type: Happy Path

### 2. TC14 – Fail to Generate Plan Due to Missing Goal Selection or Invalid Input

#### ○ Action:

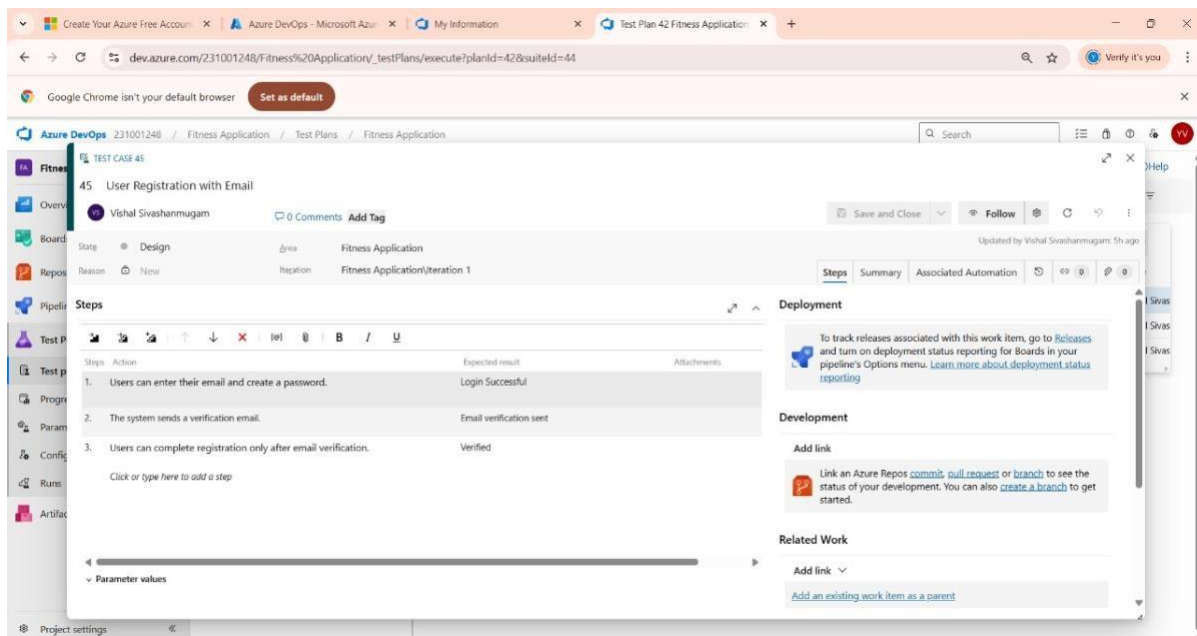
- Login with valid credentials.
- Click on "Generate Workout plan".
- Select categories.
- Click "Generate plan".

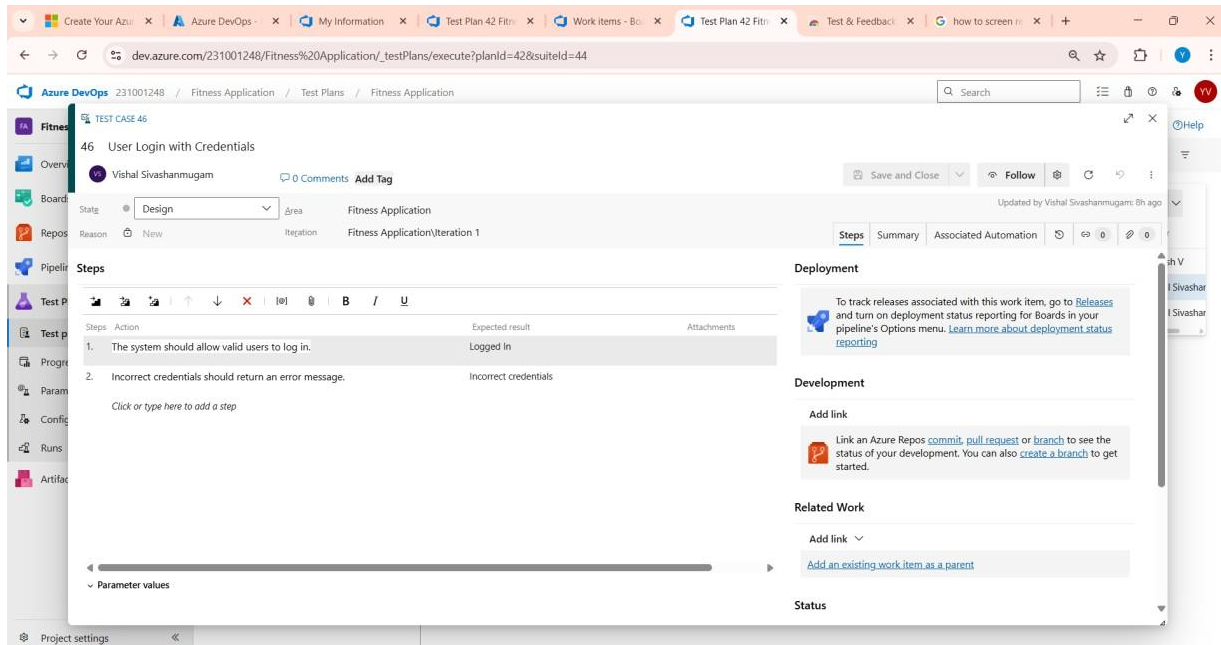
#### ○ Expected Results:

- Error message: "Please select a fitness goal" or "Unable to generate plan with the given input" is shown.

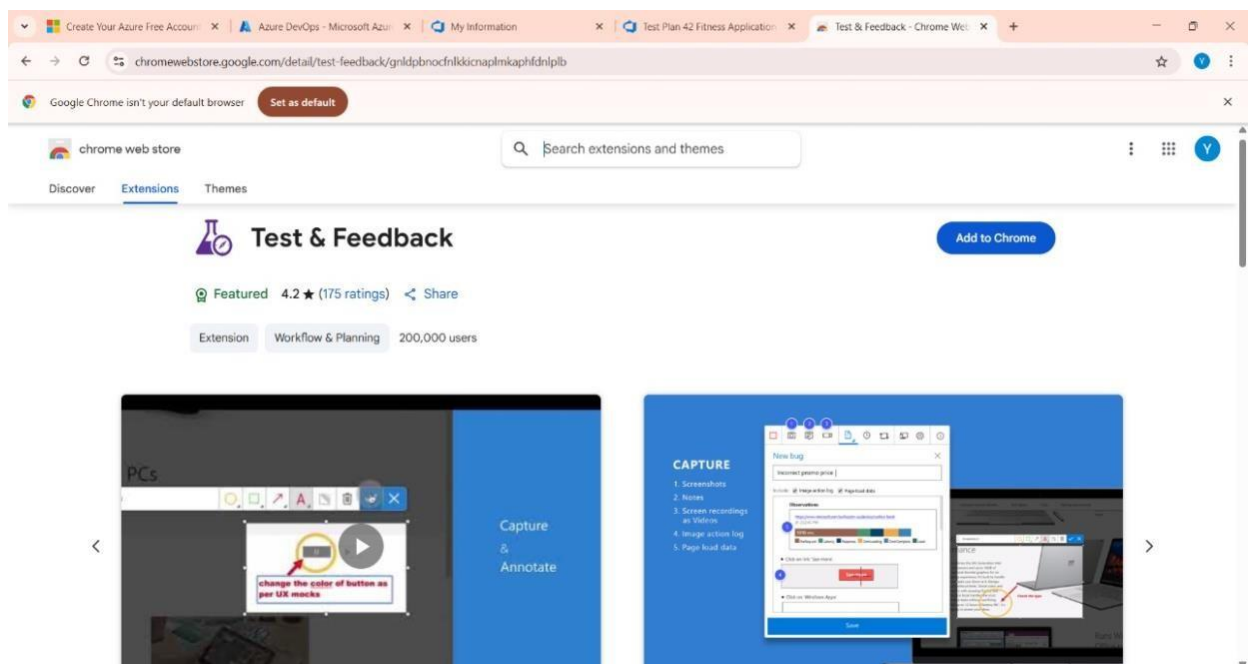
#### ○ Type: Error Path

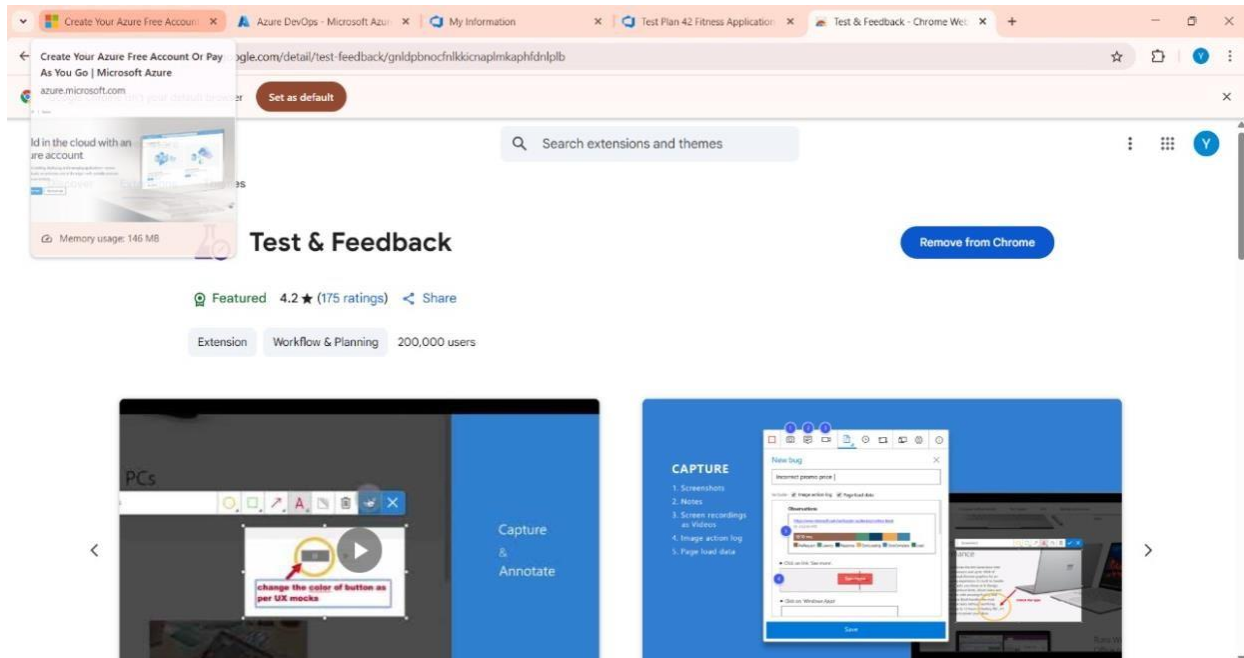
## Test Cases





#### 4. Installation of test





Test and feedback  
Showing it as an extension

**Test Points (3 items)**

Title	Outcome	Order	Test Case Id	Configuration	Tester
<input type="checkbox"/> User Registration with Email	Passed	2	45	Windows 10	Vishal Sivas
<input type="checkbox"/> User Login with Credentials	Passed	3	46	Windows 10	Vishal Sivas
<input type="checkbox"/> Forgot Password	Passed	4	47	Windows 10	Vishal Sivas

## 5. Running the test cases

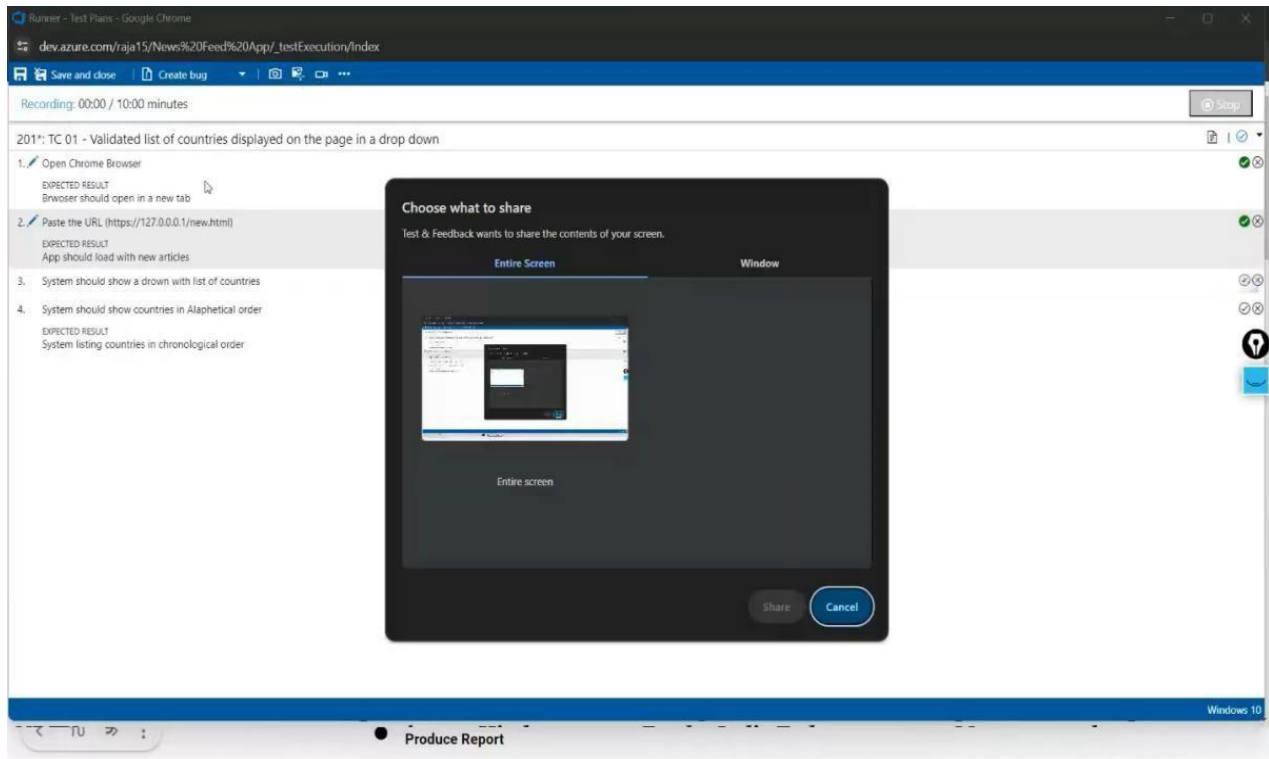
The screenshot shows the Azure DevOps Test Plans interface for a project named 'Fitness Application'. The left sidebar contains navigation options: Overview, Boards, Repos, Pipelines, Test Plans, Test plans, Progress report, Parameters, Configurations, Runs, and Artifacts. The 'Test Plans' section is selected, showing a list of test suites under the 'Fitness Application' project. The 'User Registration and Authentication' test suite is selected, showing its details: May 20 - May 27, 33% run, 100% passed, and a 'View report' link. The main area displays the 'Test Points (3 items)' table, which lists test cases with their titles, outcomes, order, test case IDs, configurations, and testers. A context menu is open over the first test case, 'User Registration with Email', showing options like 'View execution history', 'Mark Outcome', 'Run', 'Reset test to active', 'Edit test case', 'Assign tester', and 'View test result'. The 'Run' option is selected, and a sub-menu is open, showing options to 'Run for web application', 'Run for desktop application', and 'Run with options'.

Title	Outcome	Order	Test Case Id	Configuration	Tester
User Registration with Email	Passed	2	45	Windows 10	Vishal Shivas
User Login with Credentials	Passed	3	46	Windows 10	Vishal Shivas
Forgot Password	Failed	4	47	Windows 10	Vishal Shivas

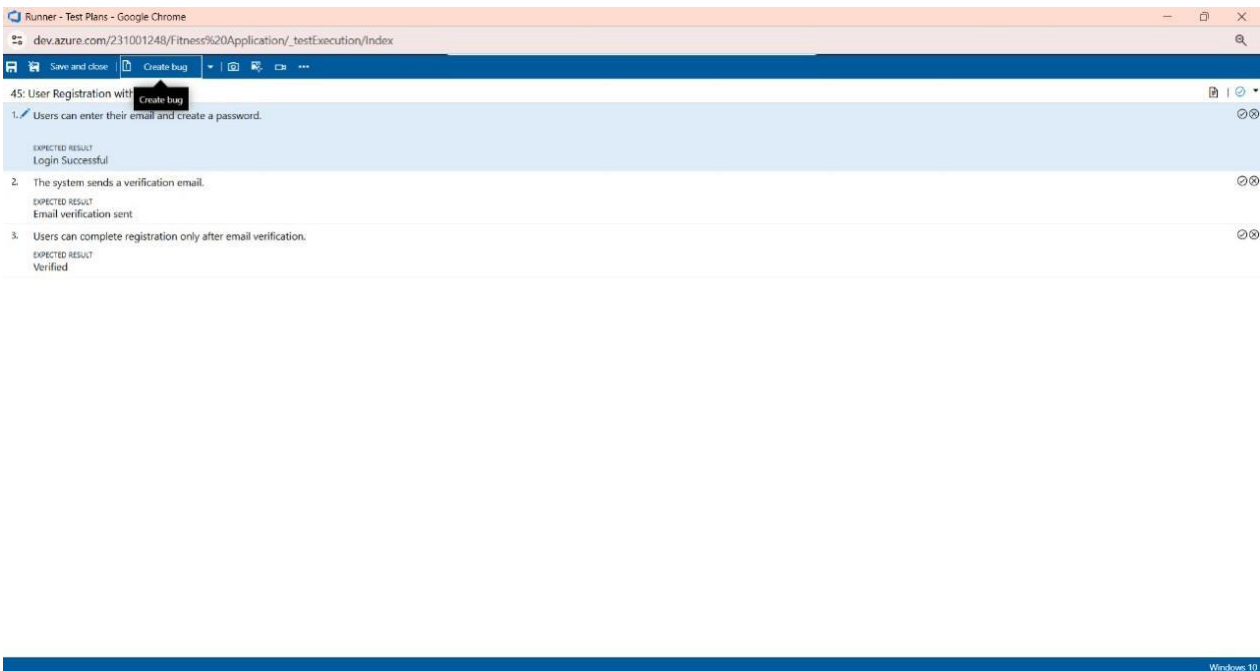
The screenshot shows the 'Runner - Test Plans - Google Chrome' window displaying the execution details of the 'User Registration with Email' test case. The window title is 'Runner - Test Plans - Google Chrome' and the URL is 'dev.azure.com/231001248/Fitness%20Application/\_testExecution/Index'. The test case is titled '45: User Registration with Email' and has a description 'Users can enter their email and create a password.' The test steps are listed below the description, each with an 'EXPECTED RESULT' and a status icon. The first step is 'Users can enter their email and create a password.' with an 'EXPECTED RESULT' of 'Login Successful'. The second step is 'The system sends a verification email.' with an 'EXPECTED RESULT' of 'Email verification sent'. The third step is 'Users can complete registration only after email verification.' with an 'EXPECTED RESULT' of 'Verified'.

Step	Expected Result	Status
1. Users can enter their email and create a password.	EXPECTED RESULT Login Successful	Passed
2. The system sends a verification email.	EXPECTED RESULT Email verification sent	Passed
3. Users can complete registration only after email verification.	EXPECTED RESULT Verified	Passed

## 6. Recording the test case



## 7. Creating the bug



Runner - Test Plans - Google Chrome

dev.azure.com/231001248/Fitness%20Application/\_testExecution/Index

45: User Registration with Email

1. Users can enter their email and create a password

NEW BUG

Make sure the entered Email and Password is correct

Unassigned 0 comments Add tag Save & Close

Stat: New Area: Fitness Application Reason: New Iteration: Fitness Application/Iteration 1 Details

Repro Steps

5/20/2025 6:52 PM Bug filed on "User Registration with Email"

Step no.	Result	Title
1.	None	Users can enter their email and create a password.
		Expected Result
		Login Successful
2.	None	The system sends a verification email.
		Expected Result
		Email verification sent
3.	None	Users can complete registration only after email verification.
		Expected Result

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 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

Tested By

45 User Registration with Email Updated 6 hours ago Design

System Info

Create Your Azure Free Account Azure DevOps - Microsoft My Information Runs - Test Plans Test & Feedback - Chrome how to screen record in v...

dev.azure.com/231001248/Fitness%20Application/\_testManagement/runs?\_a=runCharts&runId=2

Google Chrome isn't your default browser Set as default

Azure DevOps 231001248 / Fitness Application / Test Plans / Runs

Run 2 - User Registration and Authentication (Manual)

Run summary Test results Filter

Update comment Add attachment

Summary

Completed 6 hours ago. Ran for 01 minutes 50 seconds

Run type:	Manual
Owner	Vishal Sivashanmugam
Tested build	not available
Release	not available
Release Stage	not available
Build platform	not available
Build flavor	not available
Test settings	Run time settings
MTM lab environment	not available

Comments

No comments

Error message

No error message

Attachments ()

Outcome

1

Passed

Outcome by priority

2

## 8. Test case results

The screenshot shows the Azure DevOps interface for a test case. The left sidebar contains navigation options like Overview, Boards, Repos, Pipelines, Test Plans, and Artifacts. The main area displays the 'User Registration and Authentication (ID: 44)' test suite. A modal window titled 'User Login with Credentials' is open, showing the 'Test Case Results' for a specific test point. The results table shows a 'Passed' outcome, executed 6 hours ago on Windows 10 by Vishal Sivashanmugam. Below the table is a link to 'Open execution history for current test point'.

Outcome	TimeSta...	Configuration	Run by	Tester	Test
Passed	6h ago	Windows 10	Vishal Sivashan...	Vishal Sivashan...	Fitv

## 9. Test report summary

The screenshot shows the Azure DevOps interface for a work item. The left sidebar contains navigation options like Overview, Boards, Work Items, Backlogs, Sprints, Queries, Delivery Plans, Analytics views, Repos, Pipelines, Test Plans, and Artifacts. The main area displays the '45 User Registration with Email' work item. The 'Steps' section lists three steps: 1. Users can enter their email and create a password. (Expected result: Login Successful), 2. The system sends a verification email. (Expected result: Email verification sent), and 3. Users can complete registration only after email verification. (Expected result: Verified). The right sidebar contains sections for Deployment, Development, and Related Work.

Step	Action	Expected result	Attachments
1.	Users can enter their email and create a password.	Login Successful	
2.	The system sends a verification email.	Email verification sent	
3.	Users can complete registration only after email verification.	Verified	

- Assigning bug to the developer and changing state



dev.azure.com/231001248/Fitness%20Application/\_workitems/edit/57

**Fitness Application** 231001248 / Fitness Application / Boards / Work items

Recently updated | Back to Work Items | 1 of 41

**BUG 57** Make sure the entered Email and Password is correct

No one selected | 0 Comments | Add Tag

Save | Follow | Details | Updated by Yogesh V. Just now

Stat: New | Area: Fitness Application | Reason: New | Iteration: Fitness Application/Iteration 1

**Repro Steps**

5/20/2025 6:52 PM Bug filed on "User Registration with Email"

Step no.	Result	Title
1.	None	Users can enter their email and create a password.
		Expected Result Login Successful
2.	None	The system sends a verification email.
		Expected Result Email verification sent
3.	None	Users can complete registration only after email verification.
		Expected Result

**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 [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

Tested By

## 10. Progress report

dev.azure.com/231001248/Fitness%20Application/\_testManagement/analytics/progressreport

**Fitness Application** 231001248 / Fitness Application / Test Plans / Progress report

Progress report

Fitness Application | Test Suites | Outcome | Configuration | Tester | Priority | Assigned To

**Summary**

1 Test plans | 9 Test points

2 (2 / 9) Test points run | 22% Run

100% (2 / 2) Pass rate | 2 Passed

**Outcome trend** Last 14 Days

Tests

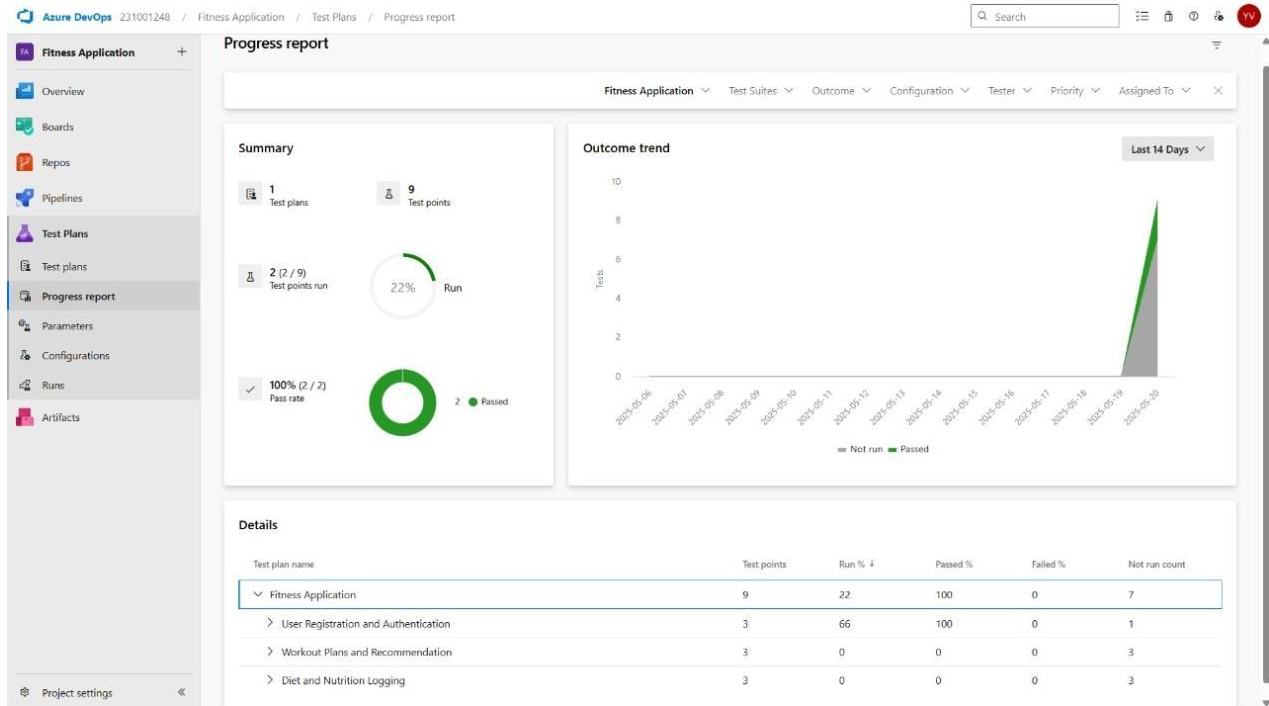
2025-05-06 2025-05-07 2025-05-08 2025-05-09 2025-05-10 2025-05-11 2025-05-12 2025-05-13 2025-05-14 2025-05-15 2025-05-16 2025-05-17 2025-05-18 2025-05-19 2025-05-20

Not run Passed

**Details**

Test plan name	Test points	Run %	Passed %	Failed %	Not run count





## 11. Changing the test template

dev.azure.com/231001248/\_settings/process

Azure DevOps 231001248 / Settings / Process

Organization Settings

All processes

Name	Description	Team projects
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 practicing Scrum.	1
Scrum	This template is for teams who follow the Scrum framework.	0
CMMI	This template is for more formal projects requiring a framework for process improvement and an auditable record.	0

dev.azure.com/231001248/\_settings/process

Azure DevOps 231001248 / Settings / Process

Organization Settings 231001248

Search Settings

General

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

Security

- Security overview
- Policies
- Permissions

Boards

- Process

Pipelines

- Agent pools
- Settings

All processes

Processes Fields

Filter by process name

Name	Description	Team projects
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 practicing...	1
Scrum	This template is for teams who follow the Scrum framework.	0
CMMI	... This template is for more formal projects requiring a framework for process improvement and an auditable record...	0

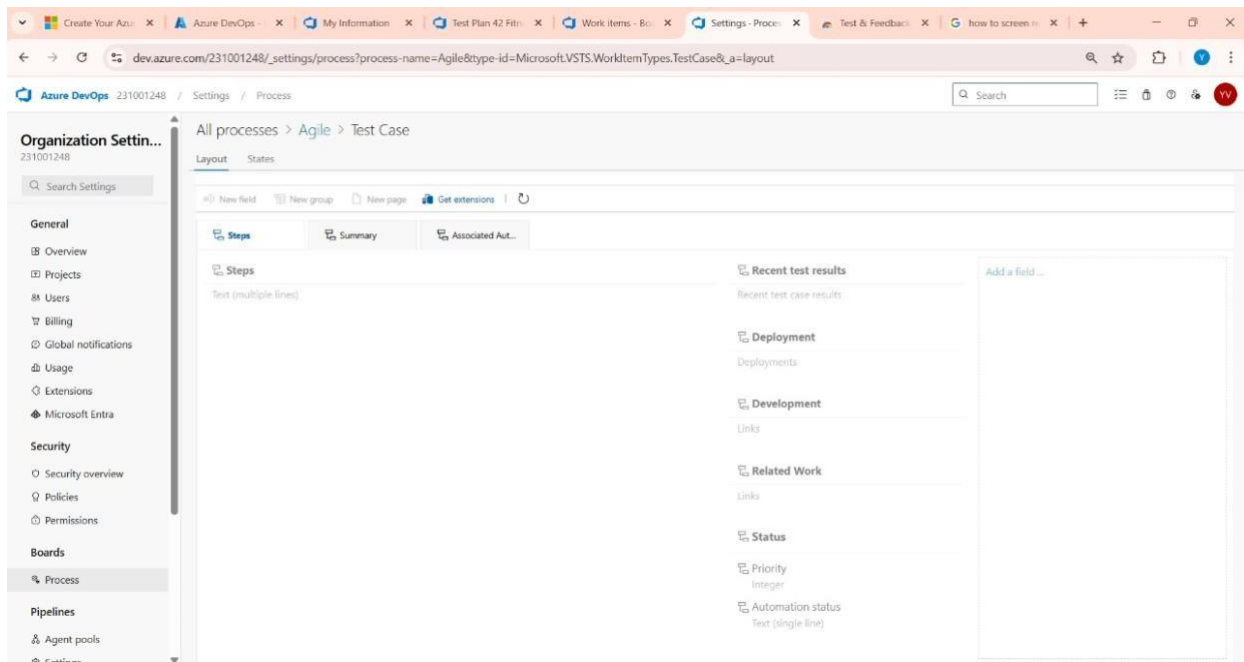
## 12. View the new test case template

This screenshot shows the 'Work item types' tab in the Azure DevOps 'Agile' process settings. The left sidebar contains the 'Organization Settings' menu with sections for General, Security, and Boards. The 'Process' option is selected under the Boards section. The main content area displays a table of work item types for the 'Agile' process. A message at the top states: 'System processes cannot be customized. To add customization create an inherited process.'

Name	Description
Bug	Describes a divergence between required and actual behavior, and tracks the work done to correct the defect and verify the correction.
Epic	Epics help teams effectively manage and groom their product backlog
Feature	Tracks a feature that will be released with the product
Issue	Tracks an obstacle to progress.
Task	Tracks work that needs to be done.
Test Case	Server-side data for a set of steps to be tested.
Test Plan	Tracks test activities for a specific milestone or release.
Test Suite	Tracks test activities for a specific feature, requirement, or user story.
User Story	Tracks an activity the user will be able to perform with the product

This screenshot shows the 'Projects' tab in the Azure DevOps 'Agile' process settings. The left sidebar is identical to the previous screenshot. The main content area displays a table of projects for the 'Agile' process. A message at the top states: 'System processes cannot be customized. To add customization create an inherited process.'

Name	Description
Fitness Application	Overview: The Fitness App is a mobile and web-based platform designed to help users achieve their health and fitness goals through personalized workout pla...



### Result:

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

EXP NO: 9

## LOAD TESTING AND PERFORMANCE TESTING

**Aim:**

To develop a fitness application that helps users track workouts, set goals, and monitor their health.

**Load Testing**

**Steps to Create an Azure Load Testing Resource:**

Before you run your first test, you need to create the Azure Load Testing resource:

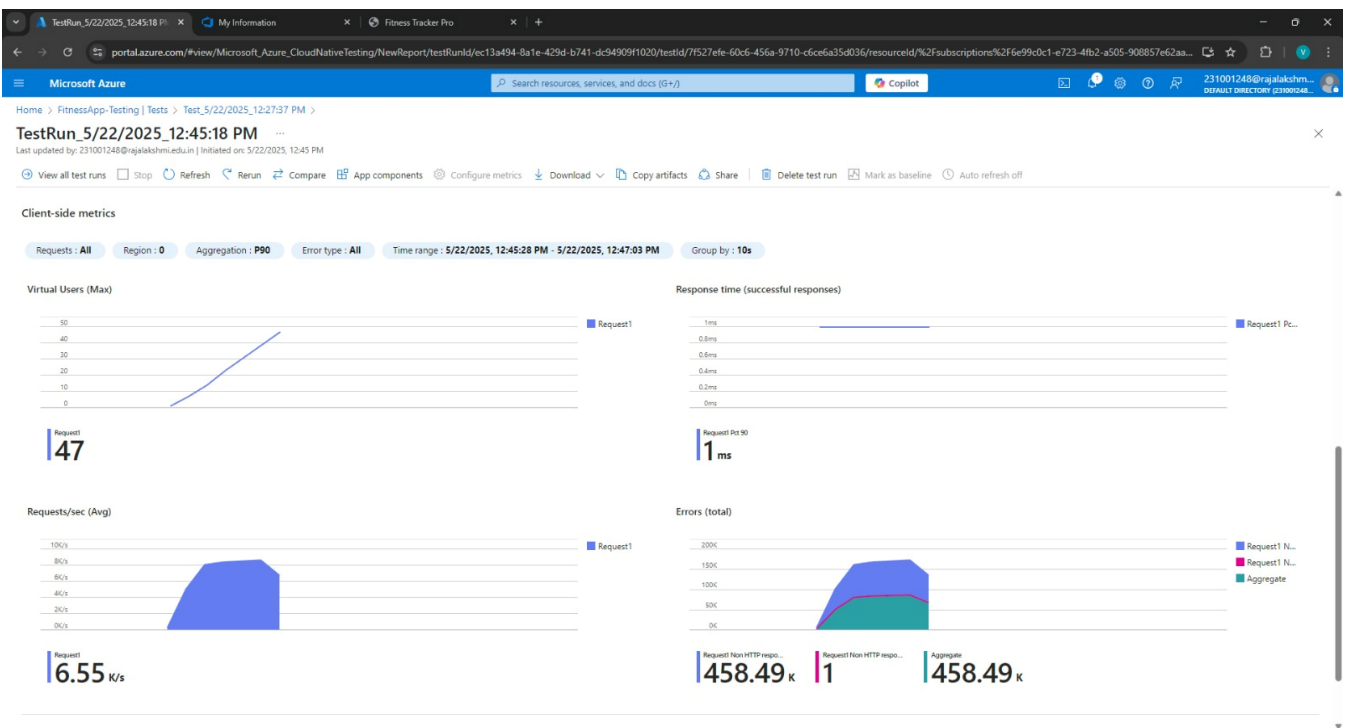
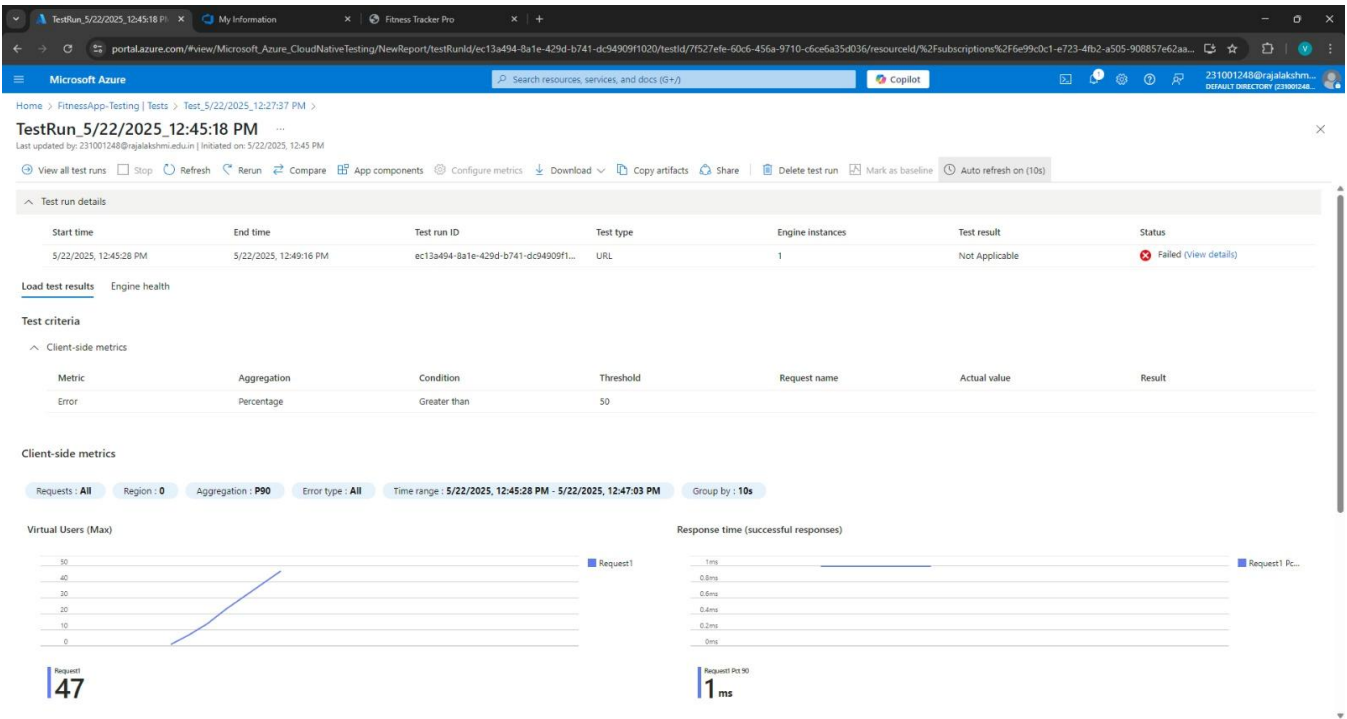
1. Sign in to Azure Portal  
Go to <https://portal.azure.com> and log in.
2. Create the Resource
  - Go to *Create a resource* → Search for “Azure Load Testing”.
  - Select Azure Load Testing and click Create.
3. Fill in the Configuration Details
  - *Subscription*: Choose your Azure subscription.
  - *Resource Group*: Create new or select an existing one.
  - *Name*: Provide a unique name (no special characters).
  - *Location*: Choose the region for hosting the resource.
4. (Optional) Configure tags for categorization and billing.
5. Click Review + Create, then Create.
6. Once deployment is complete, click Go to resource.

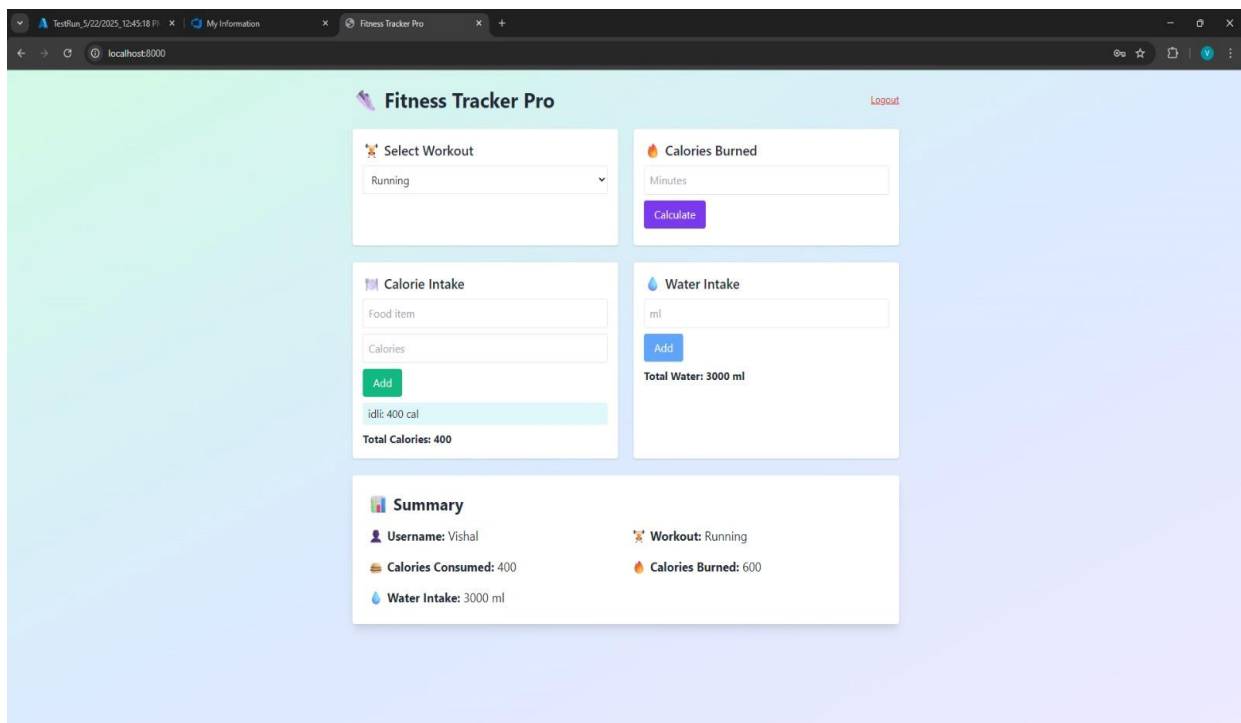
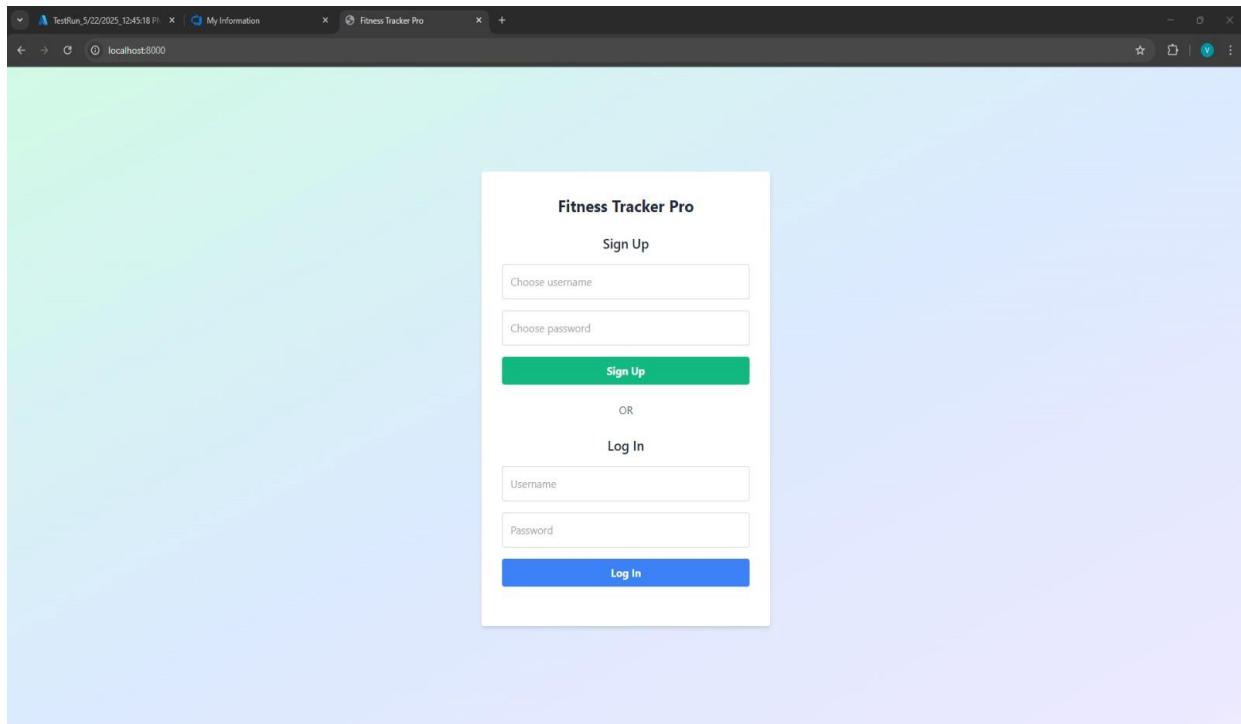
**Steps to Create and Run a Load Test:**

Once your resource is ready:

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

# Load Testing





## Result:

Successfully designed and developed a fitness application that enables users to track workouts, set fitness goals, and monitor health metrics to support a healthier lifestyle.

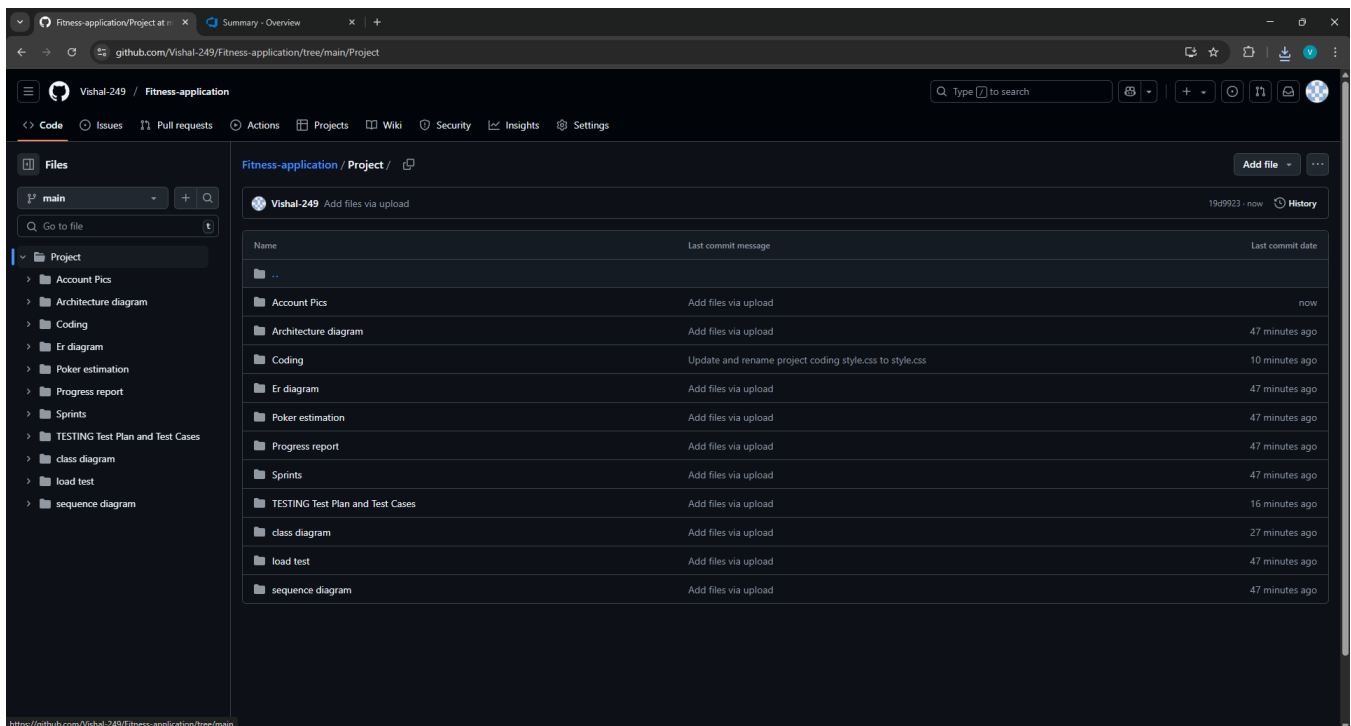
**EXP NO: 10**

## **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 Fitness Application project.

### **GitHub Project Structure**



### **Result:**

The GitHub repository clearly displays the organized project structure and consistent naming conventions, making it easy for users and contributors to understand, navigate, and extend the Fitness Application codebase.