



**RAJALAKSHMI
ENGINEERING COLLEGE**

An AUTONOMOUS Institution
Affiliated to ANNA UNIVERSITY, Chennai

**DEPARTMENT OF INFORMATION TECHNOLOGY LAB
MANUAL**

CS23432–Software Construction

(REGULATION 2023)

RAJALAKSHMI ENGINEERING COLLEGE

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Year/Branch/Section: 2nd/IT/FA

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Exp.No:1	AZURE DEVOPS ENVIRONMENT SETUP
Date:22/01/2025	

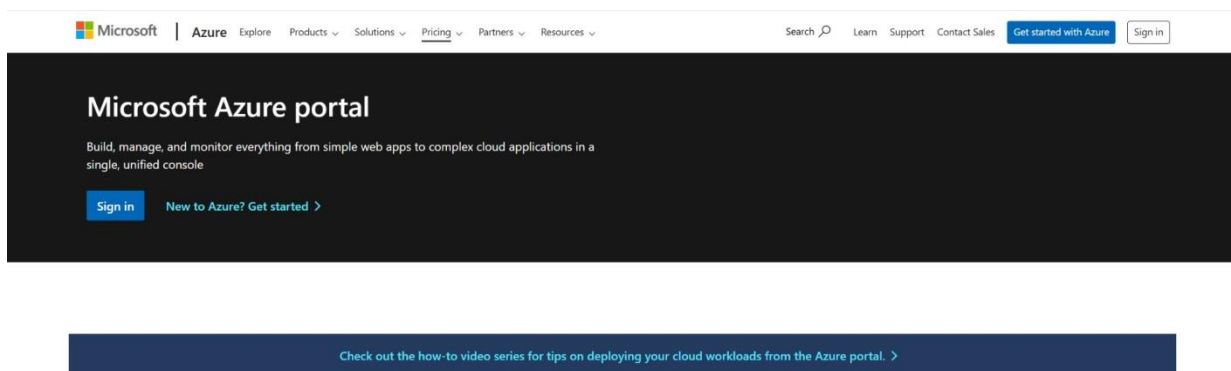
AIM: To set up and access the Azure DevOps environment by creating an organization through the Azure Portal.

INSTALLATION

1. Open your web browser and go to the Azure website:

<https://azure.microsoft.com/en-us/getstarted/azure-portal>. Sign in using your Microsoft account credentials.

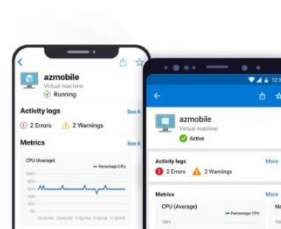
If you don't have a Microsoft account, you can create one here: <https://signup.live.com/?lic=1>



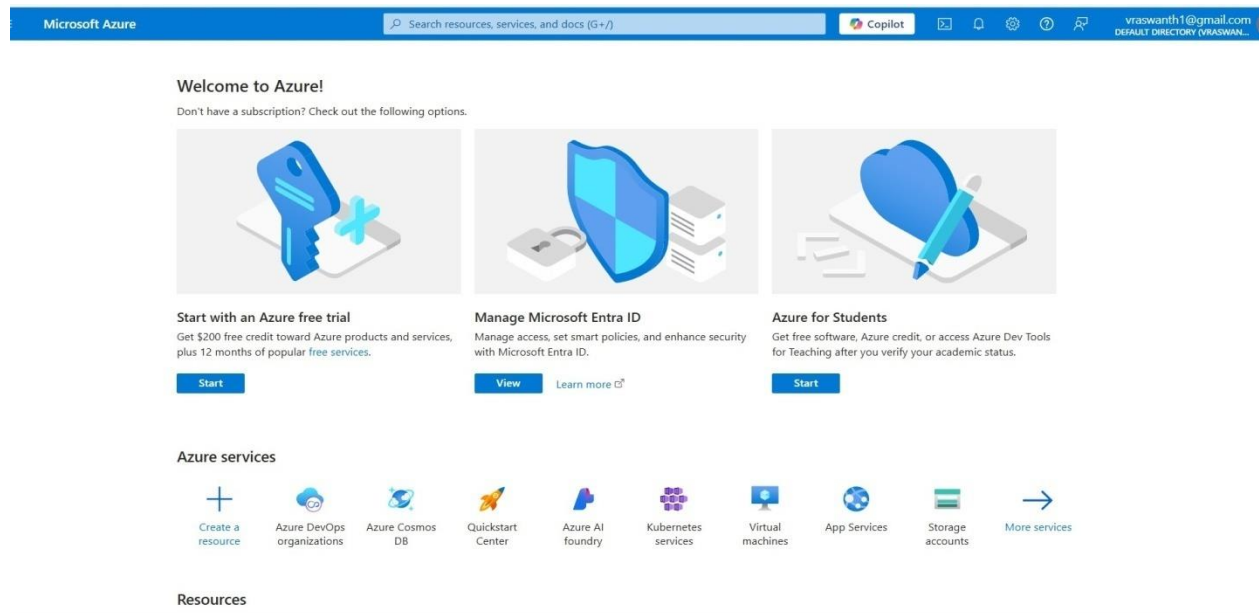
Azure mobile app

Stay connected to your Azure resources—anytime, anywhere. Now available for iOS and Android.

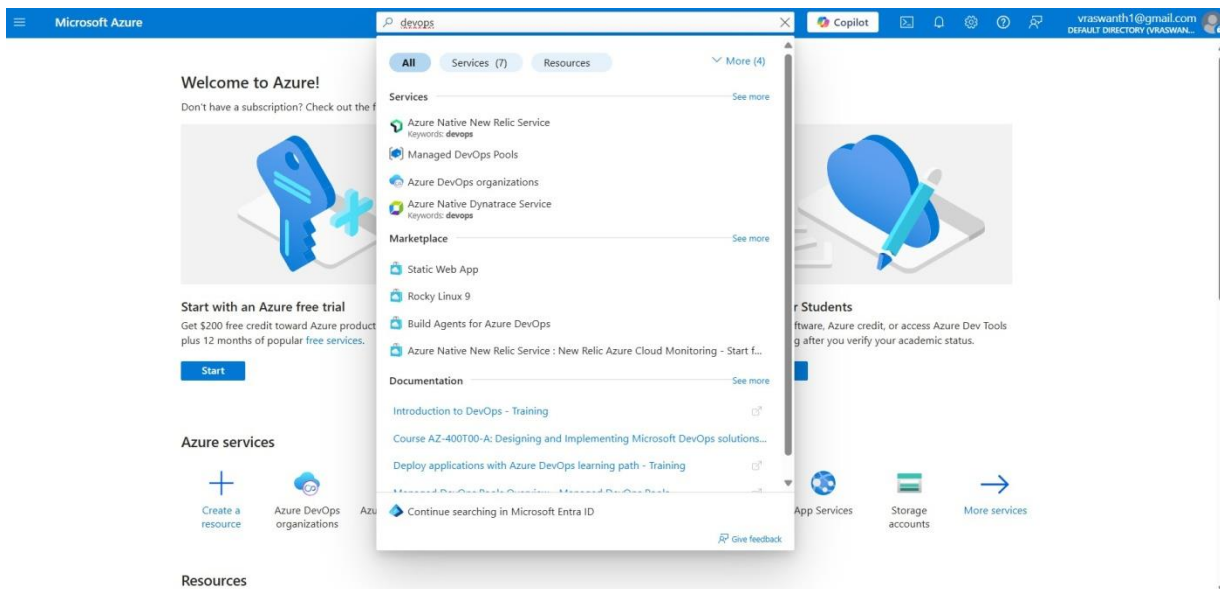
[Learn more >](#)



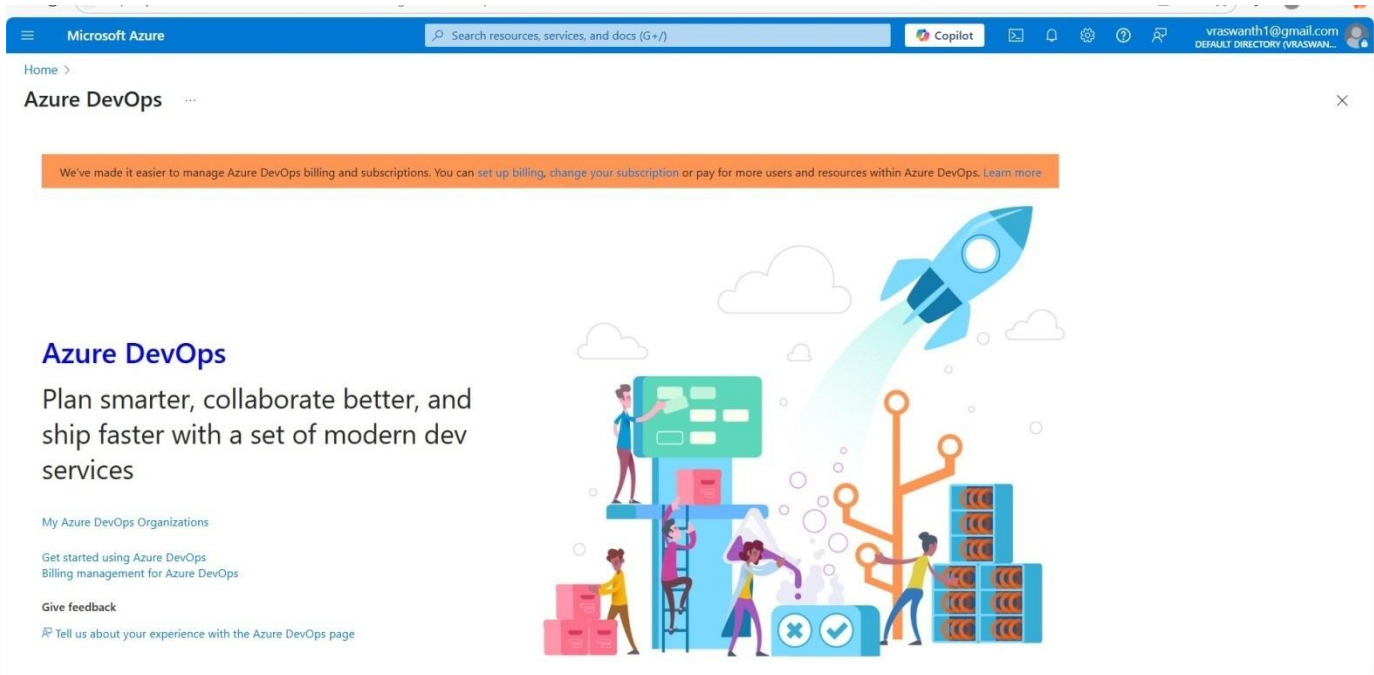
2. Azure home page



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	AZUREDEVOPSPROJECTSETUPANDUSERSTORY MANAGEMENT
Date:07/02/2025	

AIM: To setup an Azure DevOps project for efficient collaboration and agile work management.

STEPS:

1. Create An Azure Account

 Azure DevOps

vraswanth1@gmail.com [Switch directory](#)

Almost done...

Name your Azure DevOps organization *

We'll host your projects in

Enter the characters you see

New Audio



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 **Homepage**, 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 a project to get started

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

+ 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

231001041Sign out

2

231001041

231001041@rajalakshmi.edu.in

India

231001041@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/231001041 (Owner)

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

Actions

Open in Visual Studio

dev.azure.com/2310010410590 (Owner)

dev.azure.com/231001040 (Member)

4. Project dashboard

Azure DevOps231001040 / Fitness tracking app / Overview / Summary

Search

2

Fitness tracking app

Overview

Summary

Dashboards

Wiki

Boards

Repos

Pipelines

Test Plans

Artifacts

Fitness tracking app

Private

Like 0

About this project

Fitness Tracker Pro is a comprehensive fitness tracking application designed to help users monitor their physical activities, set personalized health goals, and track progress over time. The app provides real-time analytics, integrates with wearable devices, and offers AI-driven insights to enhance users' fitness journeys.

Key features include:

Activity Tracking – Monitor steps, workouts, calories burned, and heart rate.

Goal Setting & Progress Monitoring – Set fitness goals and track achievements with detailed reports.

Personalized Insights – AI-powered recommendations for workouts and nutrition.

Device Integration – Sync with smartwatches, fitness bands, and other health apps.

Social & Community Features – Connect with friends, join challenges, and share achievements.

Built with scalability and security in mind, Fitness Tracker Pro leverages Azure services to ensure seamless performance, secure data storage, and reliable cloud-based access.

Project stats

Period: Last 7 days

Boards

18 Work items created

0 Work items completed

Repos

0 Pull requests opened

0 Commits by 0 authors

Members 3

DS 2 BK

5. To manage user stories:

- 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.
- 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 this user story.

Azure DevOps 231001040 / Fitness tracking app / Boards / Backlogs

Windows Server 2019 support as Microsoft Hosted Images is being deprecated. Customers using Windows Server 2019 images in their pipelines should switch to Windows Server 2022 by 30th June 2025 to avoid disruption. For more information like, the Brownout Schedule and how to identify the impacted pipelines, please follow the [blog](#).

Fitness tracking app Team

+ New Work Item View as Board Column Options

Backlog Analytics

Epics

	Order	Work Item Type	Title	State	Effort	Busin...	Value Area	Tags
	1	Epic	> 🏰 User Authentication & Profile Management	● New			Business	
	2	Epic	> 🏰 Nutrition & Health Tracking	● New			Business	
	3	Epic	> 🏰 Social & Community Engagement	● New			Business	
	4	Epic	> 🏰 Goal Setting & Progress Analysis	● New			Business	
	5	Epic	> 🏰 Activity & Workout Tracking	● New			Business	

RESULT: Successfully created an Azure DevOps project with user story management and agile workflow setup.

2.Fill in Features

EPIC 6

6 Nutrition & Health Tracking

No one selected0 CommentsAdd Tag

Save and CloseFollow

Updated by Dinesh S: 27 Mar

StateNewAreaFitness tracking appReasonNewIterationFitness tracking app\Iteration 1

Details20

Description

Click to add Description.

Discussion

2Add a comment. Use # to link a work item, @ to mention a person, or ! to link a pull request.[switch to Markdown editor](#)

Planning

Priority2RiskEffortBusiness ValueTime CriticalityStart DateSelect a date...Target DateSelect a date...

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 linkLink 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

3.Fill in User Story Details

USER STORY 18

18 As a user, I want to sign up using my email and password so that I can create an account.

No one selected0 CommentsAdd Tag

SaveFollow

Updated by Dinesh S: 27 Mar

StateNewAreaFitness tracking appReasonNewIterationFitness tracking app\Iteration 1

Details10

Description

Click to add Description.

Acceptance Criteria

- The user should be able to sign up using an email and password.
- The system should validate password strength (e.g., min 8 characters, special characters).
- The system should send a verification email upon successful registration.

Discussion

Planning

Story PointsPriority2Risk

Classification

Value areaBusiness

Gleek

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

4.FillinTaskDetails

👑 EPIC 9

9 User Authentication & Profile Management

👤 No one selected

💬 0 Comments

Add Tag

Save

Follow

⚙️

🔄

↶

⋮

State

● New

AreaFitness tracking app

Reason

🏷️ New

IterationFitness tracking app\Iteration 1

Updated by Dinesh S: 27 Ma

Details

🕒

🔗 2

🔖 0

Description

Click to add Description.

Discussion

2

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

[switch to Markdown editor](#)

Planning

Priority2

Risk

Effort

Business Value

Time Criticality

Start DateSelect a date...

Target DateSelect a date...

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](#)

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.

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

Sprint2

Fitness tracking app Team

+ New Work Item

Column Options

TaskboardBacklogCapacityAnalytics

Iteration 1

Person: All

No iteration dates
Set dates

	New	Active	Resolved	Closed
<div><div><div>35</div><div>As a user, I want to track my water intake so that I can stay hydrated.</div><div>New</div><div>Unassigned</div></div><div></div></div>				
<div><div><div>34</div><div>As a user, I want to log my daily meals so that I can track my calorie intake.</div><div>New</div><div>Unassigned</div></div><div></div></div>				
<div><div><div>33</div><div>As a user, I want to share my achievements on social media so that I can inspire others.</div><div>New</div><div>Unassigned</div></div><div></div></div>				

Sprint3

Fitness tracking app Team

+ New Work Item

Column Options

TaskboardBacklogCapacityAnalytics





Iteration 1

Person: All


No iteration dates
Set dates

	New	Active	Resolved	Closed
<div><div><div>32</div><div>As a user, I want to earn badges for milestones (e.g., 10,000 steps in a day) so that I feel rewarded</div><div>New</div><div>Unassigned</div></div><div></div></div>				
<div><div><div>31</div><div>As a user, I want to challenge my friends to fitness competitions so that I can stay engaged.</div><div>New</div><div>Unassigned</div></div><div></div></div>				
<div><div><div>30</div><div>As a user, I want to add friends so that I can compare workouts and stay motivated.</div><div>New</div><div>Unassigned</div></div><div></div></div>				


Sprint4


 **Fitness tracking app 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
<div><div> 21 As a user, I want to upload a profile picture so that I can personalize my account.</div><div><div>New</div><div>Assigned </div></div></div> <div></div>				
<div><div> 20 As a user, I want to update my profile information (name, age, weight, etc.) so that my fitness data is personalized.</div><div><div>New</div><div>Assigned </div></div></div> <div></div>				
<div><div> 19 As a user, I want to log in securely using my credentials so that I can access my profile.</div><div><div>New</div><div>Assigned </div></div></div> <div></div>				

2116231001041

CS23432

RESULT:TheSprintsarecreatedfortheFitness tracking app.

Exp.No:5	POKERESTIMATION
Date:28/03/2025	

AIM:CreatePokerEstimationfortheuserstories-Fitness tracking app Project.

POKERESTIMATION

USER STORY 18

18 As a user, I want to sign up using my email and password so that I can create an account.

No one selected

0 Comments Add Tag

Save

Follow

Updated by Dinesh S: 27 Mi

State New

Area Fitness tracking app

Reason New

Iteration Fitness tracking app\Iteration 1

Details

1

0

Description

Click to add Description.

Acceptance Criteria

- The user should be able to sign up using an email and password.
- The system should validate password strength (e.g., min 8 characters, special characters).
- The system should send a verification email upon successful registration.

Discussion

Planning

Story Points

Priority

2

Risk

Classification

Value area

Business

Gleek

gleek

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



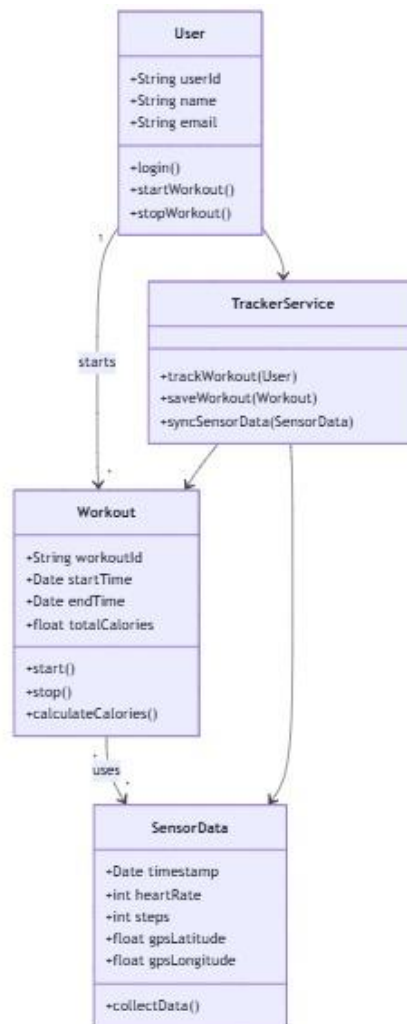
Link an Azure Repos [commit](#), [pull request](#) or [branch](#) to see the status of your development. You can also [create a branch](#) to get started.

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

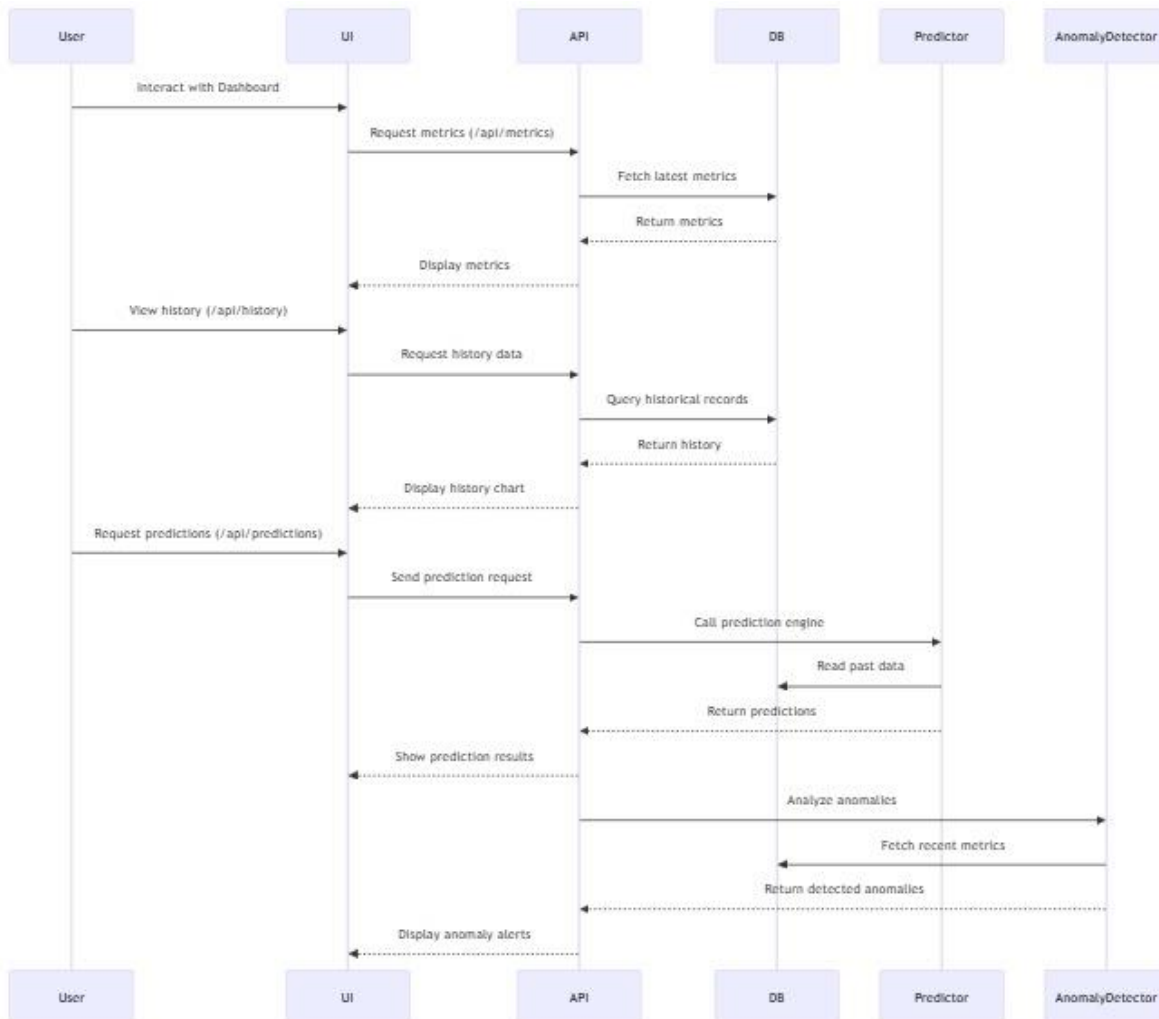
Exp.No:6	DESIGNING CLASS AND SEQUENCE DIAGRAMS FOR PROJECT ARCHITECTURE
Date: 04/04/2025	

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

6A. CLASS DIAGRAM



6B.SEQUENCEDIAGRAM

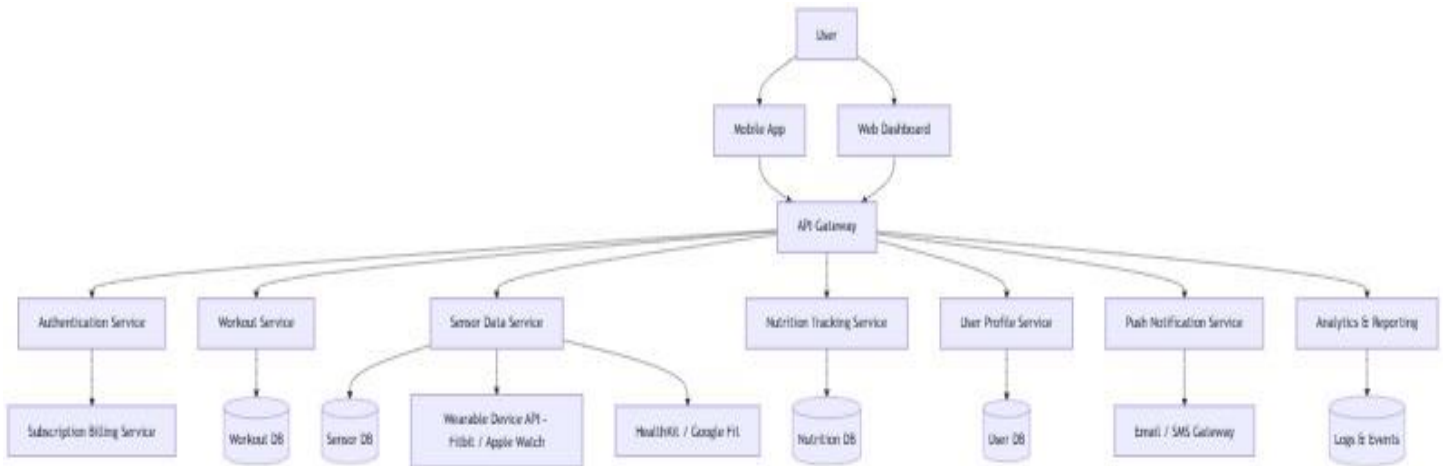


RESULT:TheClassDiagramandSequenceDiagramisdesignedSuccessfullyforthe Fitness tracking app.

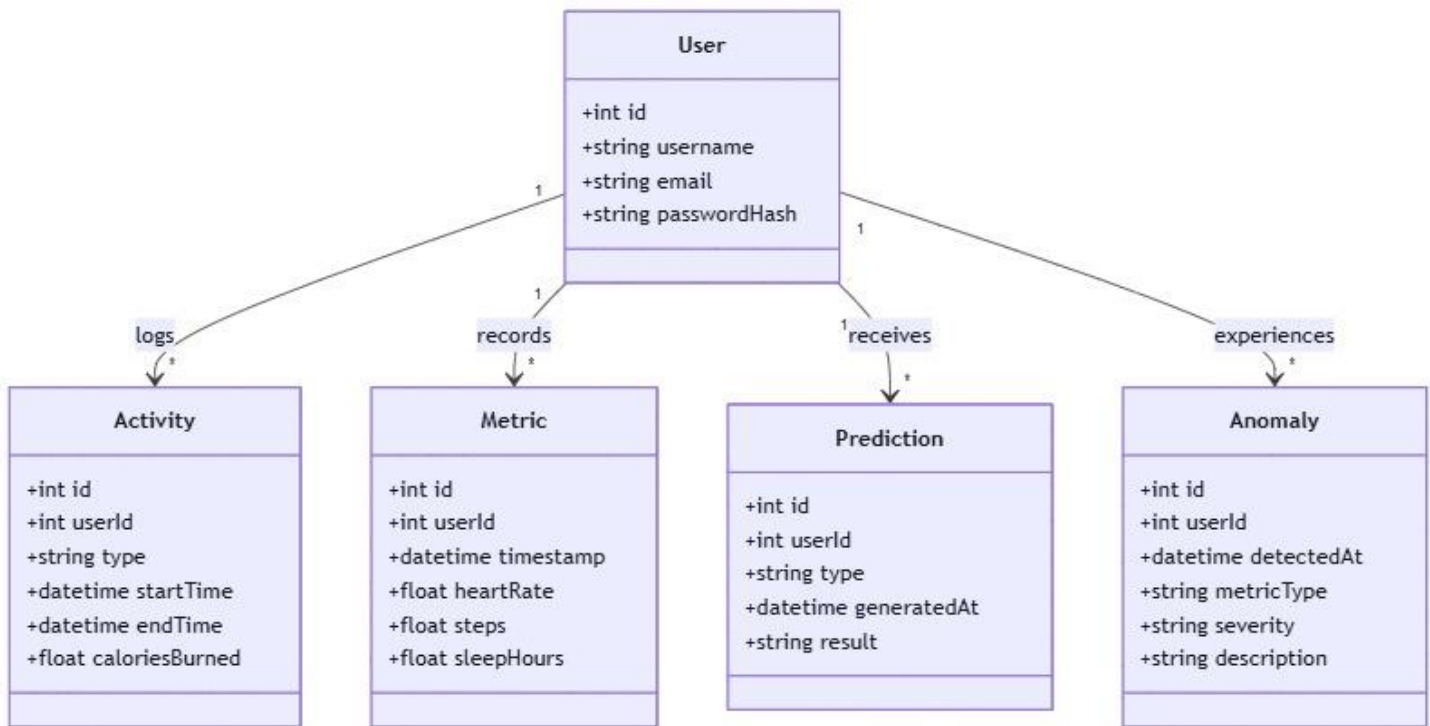
Exp.No:7	DESIGNING ARCHITECTURAL AND ER DIAGRAMS FOR PROJECT STRUCTURE
Date:16/04/2025	

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

7A. ARCHITECTURAL DIAGRAM



7B.ER DIAGRAM



RESULT:TheArchitectureDiagramandERDiagramisdesignedSuccessfullyforthe Fitness tracking app.

Exp.No:8	TESTING –TESTPLANSANDTESTCASES
Date:18/04/2025	

AIM:TestPlansandTestCaseandwritetwotestcasesforatleast five user storiesshowcasing the happy path and error scenarios in azure DevOps platform.

TESTPLANNINGANDTEST CASE

TestCaseDesignProcedure

1. UnderstandCoreFeaturesoftheApplication

- UserAuthentication(Login,Registration,ForgotPassword)
- ProfileManagement(View/EditProfile,UploadPicture)
- PostFeed(Create, View,Edit,DeletePosts)
- ChatFeature(Real-timeMessaging)
- Notifications(PostLikes,Comments,Messages)

2. DefineUserInteractions

Eachtestcasereflectsrealisticuseractions:

- Logginginandout
- Editingprofileinformation
- Creatingandmanagingposts
- Chattingwithanotheruser
- Receivingnotificationsforactivities

3. DesignHappyPathTestCases

- Focused on successful flows where inputs are valid and systems behave as expected.
- Examples:
 - User signs up successfully
 - Create a new post
 - Send a message to another user
 - View notifications for new comments

4. DesignErrorPathTestCases

- Focused on handling invalid, missing, or unexpected inputs.
- Examples:
 - Registration fails due to existing email
 - Post creation denied due to empty content
 - Message not sent when user is blocked
 - Unauthorized access to another user's profile

5. BreakDownStepsandExpectedResults

Each test case includes:

- Step-by-step actions
- Input values
- Expected results

This ensures reproducibility and easy automation later.

6. Use Clear Naming and IDs


- Example:
 - TC01–RegisterwithEmail&Password
 - TC02–RegisterwithSocialMedia
 - TC03–VerifyEmailafterRegistration
- HelpstracetestcasestouserstoriesandfeaturesinAzureDevOps

7. Separate Test Suites

Organizetestcasesbasedonfunctionalmodules:

- TS01–RegisterwithEmail&Password
- TS02–RegisterwithSocialMedia
- TS03–VerifyEmailafterRegistration
- TS04–LoginwithEmail& Password
- TS05–LoginwithSocialMedia

1. New test plan

 New Test Plan

Name *

Social Network Platform - Functional validation platform

Area Path *

Social Network Platform

Iteration *

Social Network Platform\Sprint 12/1/2025 - 5/31/2025

Create

Cancel

2. Testsuite

The screenshot shows the Azure DevOps Test Plans interface. The left sidebar contains a navigation menu with items: Overview, Boards, Repos, Pipelines, Test Plans (selected), Test plans, Progress report, Parameters, Configurations, Runs, and Artifacts. The main area is titled 'Fitness App Core Features (ID: 39)' and has tabs for 'Define', 'Execute', and 'Chart'. The 'Define' tab is active, showing a 'Test Suites' section with a filter 'Filter suites by name' and a list of suites including 'Anomaly Detection (2)'. A context menu is open over the 'New Suite' button, showing options: 'Static suite', 'Requirement based suite', and 'Query based suite'. Below the menu, there is an illustration of a person with a dog on a small island, with the text 'Add test cases via the Define tab first!' and a note 'Use Execute tab to assign and execute test plans'.

3. Testcase

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

Social Network Platform – Test Plans

User Stories – Fitness tracking app

USER STORIES – Fitness Tracking Application

1. **US01:** As a user, I want to sign up using my email and password, so I can create an account securely.
2. **US02:** As a user, I want to log my daily steps, so I can track my physical activity.
3. **US03:** As a user, I want to set daily fitness goals, so I can stay motivated.
4. **US04:** As a user, I want to view my weekly activity summary, so I can track my progress.
5. **US05:** As a user, I want to receive reminders to log activity, so I don't forget.

TESTSUITE:TS01–USERLOGIN(ID: 113)

TestCase:TC01–RegisterwithValidEmail&Password

UserStory:As a user,I want to sign up using my email and password,so that I can create an account securely.

TestType:HappyPath

Steps and Expected Results:

- **Action:**Navigate to the registration page
Expected Result:Registration page with email and password fields is displayed
- **Action:**Enter a valid email and strong password
Expected Result:Input is accepted with no validation errors
- **Action:**Click on the "Register" button
Expected Result:User is taken to the email verification screen

Notes:

Ensure the email is not already registered. Simulate successful email/password registration.

TestCase:TC02–RegisterwithAlreadyRegisteredEmail

UserStory:As a user,I want to sign up using my email and password,so that I can create an account securely.

TestType:ErrorPath

Steps and Expected Results:

- **Action:**Navigate to the registration page
Expected Result:Registration form is displayed
- **Action:**Enter an email that is already registered
Expected Result:Email field is highlighted or flagged
- **Action:**Click on the "Register" button
Expected Result:Error message "Email already registered" is shown

Notes:

Ensure the system prevents duplicate accounts.

TEST SUITE: Register with Social Media (ID: 112)

TestCase:TC03–RegisterwithValidGoogleAccount

UserStory:As a user, I want to sign up using my Google or Facebook account, so that I can create an account quickly.

TestType:HappyPath

Steps and Expected Results:

- **Action:**Navigate to the registration page
ExpectedResult:Registration options for Google and Facebook are displayed
- **Action:**Click on “Sign up with Google”
ExpectedResult:Google OAuth login screen appears
- **Action:**Choose a valid Google account and grant permission
ExpectedResult:User is redirected back and account is created
- **Action:**Confirm successful registration
ExpectedResult:User is taken to the welcome screen or email verification page (if required)

Notes:

Ensure OAuth credentials are properly configured. Test account must not already exist in the system.

TestCase:TC04–RegisterwithDeniedOAuthPermission(Google/Facebook)

UserStory:As a user, I want to sign up using my Google or Facebook account, so that I can create an account quickly.

TestType:ErrorPath

Steps and Expected Results:

- **Action:**Navigate to the registration page
ExpectedResult:Social media sign-up options are shown
- **Action:**Click on “Sign up with Google” or “Sign up with Facebook”
ExpectedResult:OAuth permissions screen is displayed
- **Action:**Click “Cancel” or deny permission
ExpectedResult:Registration process is halted

Notes:

System should handle OAuth denial gracefully and allow user to retry or choose another method.

TESTSUITE:TS03-VerifyEmailafterRegistration(ID:118) Test

Case: TC05 – Verify Email After Successful Registration

UserStory:As a user,I want to verify my email after registration,so that I can activate my account.

TestType:HappyPath

Steps and Expected Results:

- **Action:**Complete the registration process using email and password
Expected Result:Registration is successful, and a verification email is sent
- **Action:**Open the email inbox and click the verification link
Expected Result:User is redirected to the verification confirmation page
- **Action:**Attempt to login after verification
Expected Result:Login is successful, and user is redirected to the dashboard

Notes:

Ensure the verification link is unique and only usable once. Simulates a typical successful verification flow.

Test Case: TC06–Email Verification with Expired or Invalid Link

UserStory:As a user,I want to verify my email after registration,so that I can activate my account.

TestType:ErrorPath

Steps and Expected Results:

- **Action:**Complete the registration and receive the verification email
Expected Result:Email with verification link is received
- **Action:**Wait for the link to expire or modify the link manually
Expected Result:The verification link becomes invalid
- **Action:**Click the expired or invalid verification link
Expected Result:Error message “Verification link is invalid or expired” is shown

Notes:

Systems should prompt the user to request a new verification link and not activate the account until successful verification.

TESTSUITE:TS04-LoginwithEmail&Password(ID:121) Test

Case: TC07 – Login with Valid Email and Password

UserStory:As a user,I want to login using my registered email and password,so that I can access my account.

TestType:HappyPath

Steps and Expected Results:

- **Action:**Navigate to the login page
Expected Result:Login page is displayed with email and password fields
- **Action:**Enter a valid registered email and correct password
Expected Result:Input is accepted with no validation errors
- **Action:**Click the "Login" button
Expected Result:User is redirected to the account dashboard

Notes:

Ensure the test account is verified and active before testing. This simulates a successful login.

TestCase:TC08–LoginwithInvalidPassword

UserStory:As a user,I want to login using my registered email and password,so that I can access my account.

TestType:ErrorPath

Steps and Expected Results:

- **Action:**Navigate to the login page
Expected Result:Login page is displayed
- **Action:**Enter a valid registered email and incorrect password
Expected Result:Password is flagged as incorrect
- **Action:**Click the "Login" button
Expected Result:Error message "Incorrect password" is displayed, and user remains on login page

Notes:

System should limit repeated failed attempts and may prompt CAPTCHA or lockout mechanisms after multiple failures.

TESTSUITE:TS05-LoginwithSocialMedia(ID:124) Test

Case: TC09 – Login with Valid Google Account

UserStory:As a user, I want to login using my Google or Facebook account, so that I don't need to remember my password.

TestType:HappyPath

Steps and Expected Results:

- **Action:**Navigate to the login page
ExpectedResult:Login page displays options to login with Google and Facebook
- **Action:**Click the "Login with Google" button
ExpectedResult:Google OAuth screen appears
- **Action:**Select a valid Google account and authorize access
ExpectedResult:User is redirected back and logged into their account dashboard

Notes:

Ensure the Google account is already linked or matches an existing user profile. OAuth integration must be correctly configured.

TestCase:TC10–LoginwithDeniedOAuthPermission(Google/Facebook)


UserStory:As a user, I want to login using my Google or Facebook account, so that I don't need to remember my password.

TestType:ErrorPath


Steps and Expected Results:

- **Action:**Navigate to the login page
ExpectedResult:Social login options are visible
- **Action:**Click "Login with Google" or "Login with Facebook"
ExpectedResult:OAuth consent screen appears
- **Action:**Click "Cancel" or deny authorization
ExpectedResult:User is redirected back with error message "Login cancelled or permission denied"

TestCases

 TEST CASE 41

41 Successful Sign Up

 Dinesh S









0 Comments Add Tag

Save Follow Settings Refresh Undo More

State Design Area Fitness tracking app Reason New Iteration Fitness tracking app\Iteration 1 Updated by Dinesh S: Saturday

Steps Summary Associated Automation 0 0

Steps

   |    |   | **B** /

Steps	Action	Expected result
1.	Navigate to the Login page.	The Sign-Up form is displayed
2.	Enter the valid Email and password	All fields accept calud input without any error
3.	click the "Login" Button	User account is created and redirected to the dashboard

Click or type here to add a step

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

Parameter values

 TEST CASE 42

42 Login with wrong password

 Dinesh S









0 Comments Add Tag

Save Follow Settings Refresh Undo More

State Design Area Fitness tracking app Reason New Iteration Fitness tracking app\Iteration 1 Updated by Dinesh S: Saturday

Steps Summary Associated Automation 0 0

Steps

   |    |   | **B** /

Steps	Action	Expected result
1.	Navigate to the login page	Input fields accept the data
2.	Enter a balid Emal and an incorrect Password	Error message appears: "Invalid username or password".
3.	Click the "Login" button	

Click or type here to add a step

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.

Azure DevOps 231001040 / Fitness tracking app / Test Plans / Fitness App Core Features

Search

Fitness tracking app +

- Overview
- Boards
- Repos
- Pipelines
- Test Plans**
- Test plans
- Progress report
- Parameters
- Configurations
- Runs
- Artifacts

Fitness App Core ... Current

May 24 - May 31
100% run, 100% passed. [View report](#)

Test Suites

Filter suites by name

- Fitness App Core Features
 - Anomaly Detection (2)
 - System metrics API (2)
 - View Metrics Dashboard (2)
 - Activity Logging (2)**
 - User Authentications (2)

Activity Logging (ID: 43) [Help](#)

Define Execute Chart

Test Points (2 items)

Run for web application

Title	Outcome	Order	Test Case Id
<input type="checkbox"/> Log new workout session	Passed	1	44
<input checked="" type="checkbox"/> Log Workout with missing fields	Passed	2	45

Azure DevOps 231001040 / Fitness tracking app / Test Plans / Fitness App Core Features

Search

Fitness tracking app +

- Overview
- Boards
- Repos
- Pipelines
- Test Plans**
- Test plans
- Progress report
- Parameters
- Configurations
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Fitness App Core ... Current

May 24 - May 31
100% run, 100% passed. [View report](#)

Test Suites

Filter suites by name

- Fitness App Core Features
 - Anomaly Detection (2)
 - System metrics API (2)
 - View Metrics Dashboard (2)
 - Activity Logging (2)
 - User Authentications (2)**

User Authentications (ID: 40) [Help](#)

Define Execute Chart

Test Points (2 items)

Run for web application

Title	Outcome	Order	Test Case Id
<input type="checkbox"/> Successful Sign Up	Passed	1	41
<input checked="" type="checkbox"/> Login with wrong password	Passed	2	42

TEST CASE 42

42 Login with wrong password

Dinesh S 0 Comments Add Tag

Save Follow

State Design Area Fitness tracking app Updated by Dinesh S: Saturday

Reason New Iteration Fitness tracking app/Iteration 1

Steps Summary Associated Automation 0 0

Steps

Steps	Action	Expected result
1.	Navigate to the login page	Input fields accept the data
2.	Enter a valid Email and an incorrect Password	Error message appears: "Invalid username or password".
3.	Click the "Login" button	

Click or type here to add a step

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.

4. Installation of test

Test and feedback

chrome web store

Search extensions and themes


Discover Extensions Themes

Test & Feedback

Featured 4.2★ (175 ratings) Share

Extension Workflow & Planning 200,000 users

Add to Chrome



Overview

Showing it as an extension

FA

Fitness tracking app

+

Overview

Boards

Repos

Pipelines

Test Plans

Test plans

Progress report

Parameters

Configurations

Runs

Artifacts

←

Fitness App Core ...

▼

:

May 24 - May 31

Current

100% run, 100% passed. [View report](#)

Test Suites

Filter suites by name

▼ Fitness App Core Features

Anomaly Detection (2)

System metrics API (2)

View Metrics Dashboard (2)

Activity Logging (2)

User Authentications (2)

Activity Logging (ID: 43)

DefineExecuteChart

Test Points (2 items)

Run for web application

Title	Outcome	Order	Test Case Id
<input type="checkbox"/> Log new workout session	Passed	1	44
<input checked="" type="checkbox"/> Log Workout with missing fields	Passed	2	45

5. Running the test cases

FA

Fitness tracking app

+

Overview

Boards

Repos

Pipelines

Test Plans

Test plans

Progress report

Parameters

Configurations

Runs

Artifacts

←

Fitness App Core ...

▼

:

May 24 - May 31

Current

100% run, 100% passed. [View report](#)

Test Suites

Filter suites by name

▼ Fitness App Core Features

Anomaly Detection (2)

System metrics API (2)

View Metrics Dashboard (2)

Activity Logging (2)

User Authentications (2)

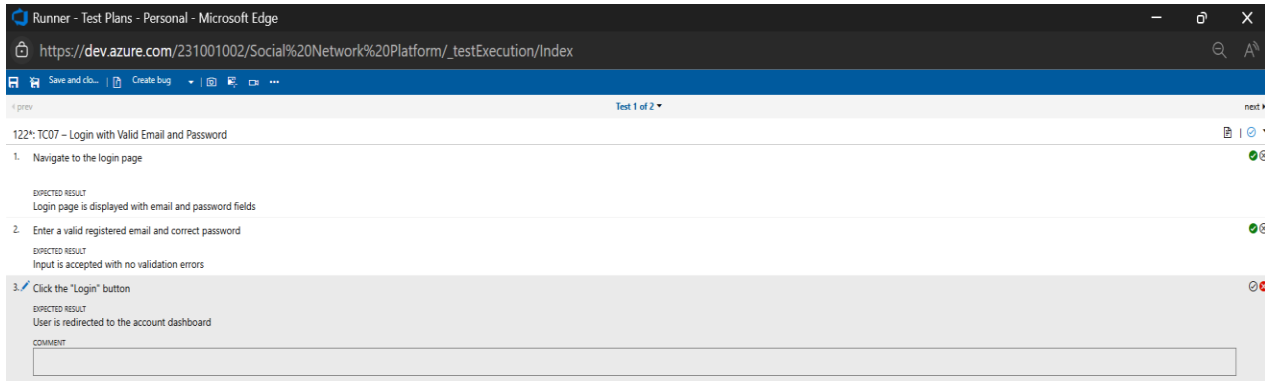
User Authentications (ID: 40)

DefineExecuteChart

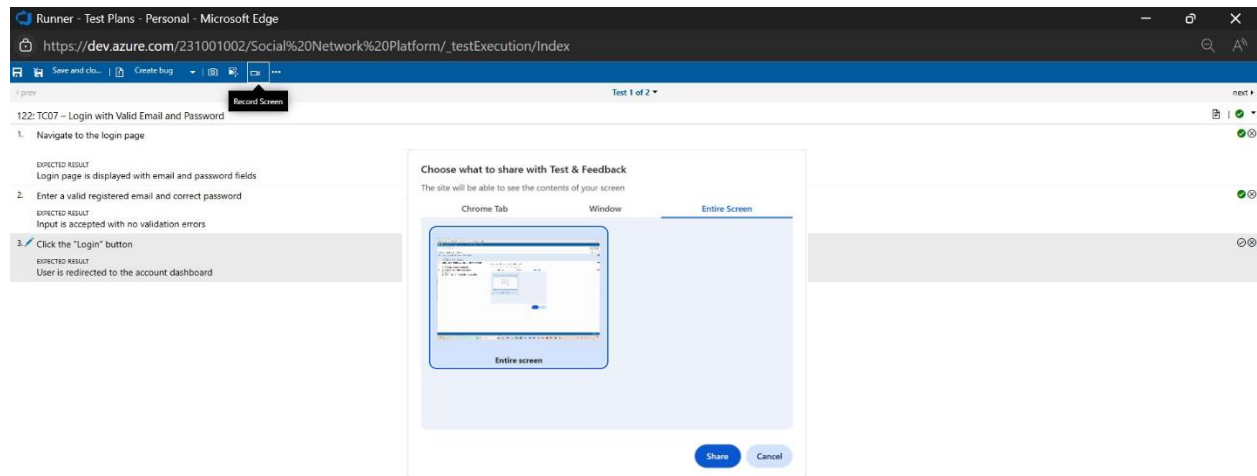
Test Points (2 items)

Run for web application

Title	Outcome	Order	Test Case Id
<input type="checkbox"/> Successful Sign Up	Passed	1	41
<input checked="" type="checkbox"/> Login with wrong password	Passed	2	42



6. Recording the test case



7. Creating the bug

The screenshot shows the Azure DevOps Bug tool interface in a Microsoft Edge browser. The URL is https://dev.azure.com/231001002/Social%20Network%20Platform/_testExecution/Index. The bug title is "126: TC10 - Login with Denied OAuth Permission (Google/Facebook)". The bug is in the "New" state, assigned to "Unassigned", and has a severity of "3 - Medium". The repro steps are as follows:

1. Navigate to the login page
Expected Result: Social login options are visible
2. **Passed** Click "Login with Google" or "Login with Facebook"
Expected Result: OAuth consent screen appears
3. **Failed** Click "Cancel" or deny authorization
Expected Result: User is redirected back with error message "Login cancelled or permission denied"

The test configuration is "Windows 10". The system info shows it was found in the build. The right sidebar contains sections for Planning, Deployment, Development, and Related Work.

The screenshot shows the Azure DevOps Bug tool interface in a Microsoft Edge browser. The URL is https://dev.azure.com/231001002/Social%20Network%20Platform/_testExecution/Index. The bug title is "125: TC09 - Login with Valid Google Account". The bug is in the "New" state, assigned to "Unassigned", and has a severity of "3 - Medium". The repro steps are as follows:

1. **Failed** Navigate to the login page
Expected Result: Login page displays options to log in with Google and Facebook
2. **Failed** Click the "Login with Google" buttons
Expected Result: Google OAuth screen appears
3. **Passed** Select a valid Google account and authorize access
Expected Result: User is redirected back and logged into their account dashboard

The bug was filed on 5/22/2025 at 5:58 PM. The system info shows it was found in the build. The right sidebar contains sections for Planning, Deployment, Development, and Related Work.

8. Testcaseresults

The screenshot displays the Azure DevOps interface for a project named 'Social Network Platform'. The left sidebar shows the navigation menu with 'Test Plans' selected. The main area shows the 'Test Suites' list, with 'TS04 - Log in with Email & Password (ID: 121)' selected. The 'Test Points (2 items)' list shows 'TC07 - Login with Valid Email and Password' selected. The 'Test Case Results' table shows the following data:

Outcome	TimeSta...	Configuration	Run by	Tester	Test
Failed	5m ago	Windows 10	Aadithya B	AmeenBasith.K	Soc
Passed	5m ago	Windows 10	Aadithya B	AmeenBasith.K	Soc
Passed	32m ago	Windows 10	Aadithya B	AmeenBasith.K	Soc
Passed	36m ago	Windows 10	Aadithya B	AmeenBasith.K	Soc

9. Testreportsummary

The screenshot displays the Azure DevOps interface for a project named 'Social Network Platform'. The left sidebar shows the navigation menu with 'Work Items' selected. The main area shows the 'Recently created' list, with '128 Bug-2' selected. The 'Repro Steps' section shows the following steps:

Step no.	Result	Title
1.	Failed	Navigate to the login page
2.	Failed	Click the "Login with Google" buttons
3.	Passed	Select a valid Google account and authorize access

- Assigning bug to the developer and changing state

Azure DevOps 231001002 / Social Network Platform / Boards / Work items

128 Bug-2

0 Comments Add Tag

Save Follow

Updated by Aadithya B 14m ago

Details

Repro Steps

5/22/2025 5:58 PM Bug filed on "TC09 - Login with Valid Google Account"

Step no.	Result	Title
1.	Failed	Navigate to the login page
		Expected Result Login page displays options to log in with Google and Facebook
2.	Failed	Click the "Login with Google" buttons
		Expected Result Google OAuth screen appears
3.	Passed	Select a valid Google account and authorize access
		Expected Result User is redirected back and logged into their account dashboard

System Info

Planning

Resolved Reason

Story Points

Priority 2

Severity 3 - Medium

Activity

Effort (Hours)

Original Estimate

Remaining

Completed

Gleek

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

14 1.2.2: Log in with Social Media
Updated 13h ago @ New

Tested By

125 TC09 - Login with Valid Google Account
Updated 2h ago @ Design

10. Progress report

Azure DevOps 231001002 / Social Network Platform / Test Plans / Progress report

Progress report

Social Network Platform - Functional Validation Plan

Test Suites Outcome Configuration Tester Priority Assigned To

Summary

1 Test plan 10 Test points

10 / 10 Test points run 100% Run

60% (6 / 10) Pass rate

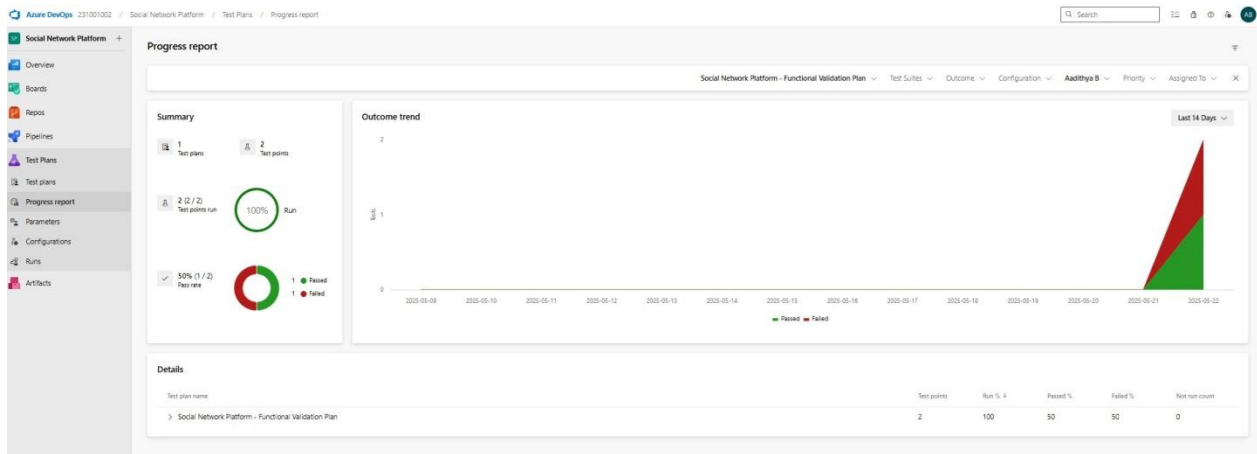
6 Passed 3 Failed 1 Blocked

Outcome trend

Last 14 Days

Test plan name

Test plan name	Test points	Run %	Passed %	Failed %	Not run count
Social Network Platform - Functional Validation Plan	10	100	60	30	0



11. Changingthetesttemplate

Azure DevOps 231001002 / Settings / Process

Search

Organization Setti... 231001002

Search 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 Fields

Help Filter by process name

Name	Description	Team projects
Basic (default)	This template is flexible for any process and great for teams getting started with 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 of decisions.	0

12. View the new test case template

Add a field to Test Case ×

Definition
Options
Layout

Add a field to store custom, queryable data about your work items.

☐ Use an existing field

Field

☒ Create a field

Name

Type

Description

[Learn more](#)

Azure DevOps 231001005 / Settings / Process

Organization Settings
231001005

Search Settings

General

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

Security

- Security overview
- Policies
- Permissions

Boards

- Process

All processes > 231001005 Agile > Test Case

Layout States Rules

New field New group New page Get extensions

Steps Summary Associated Aut...

Steps
Text (multiple lines)

Custom

- Test Type
Text (single line)
- Recent test results
Recent test case results
- Deployment
Deployments
- Development
Links
- Related Work
Links

Add a field ...

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	LOADTESTINGANDPERFORMANCETESTING
Date:25/04/2025	

AIM: To create an Azure Load Testing resource and run a load test to evaluate the performance of a target endpoint.

LOADTESTING

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

Steps to Create and Run a Load Test:

Once your resource is ready:

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

LoadTesting

TestRun_4/18/2025_2:15:44 PM

Last updated by: 231801079@rajalakshmi.edu.in | Initiated on: 4/18/2025, 2:15 PM

View all test runs Stop Refresh Rerun Compare App components Configure metrics Download Copy artifacts Share Delete test run Mark as baseline Auto refresh on (5s)

Test run details

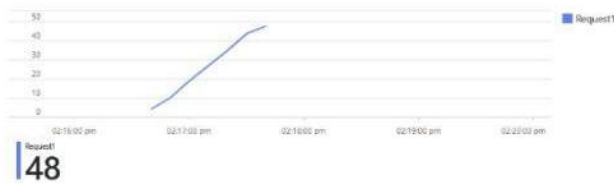
Start time	End time	Test run ID	Test type	Engine instances	Debug mode	Test result	Status
4/18/2025, 2:15:47 PM		7d2a0241-4948-4f6c-a7cc-6...	URL	1	Disabled		Executing

Load test results Engine health

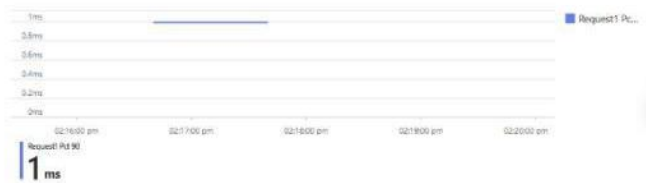
Client-side metrics

Requests: 4 selected Region: 0 Aggregation: P90 Error type: 5 selected Time range: 4/18/2025, 2:15:47 PM - 4/18/2025, 2:16:55 PM Group by: 5s

Virtual Users (Max)



Response time (successful responses)



Requests/sec (Avg)

Errors (total)

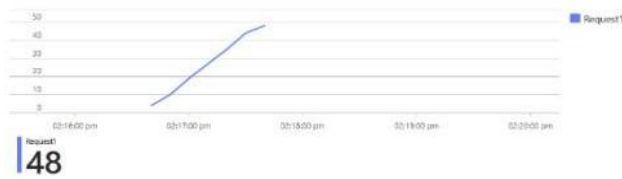
TestRun_4/18/2025_2:15:44 PM

Last updated by: 231801079@rajalakshmi.edu.in | Initiated on: 4/18/2025, 2:15 PM

View all test runs Stop Refresh Rerun Compare App components Configure metrics Download Copy artifacts Share Delete test run Mark as baseline Auto refresh on (5s)

Requests: 4 selected Region: 0 Aggregation: P90 Error type: 5 selected Time range: 4/18/2025, 2:15:47 PM - 4/18/2025, 2:16:55 PM Group by: 5s

Virtual Users (Max)



Response time (successful responses)

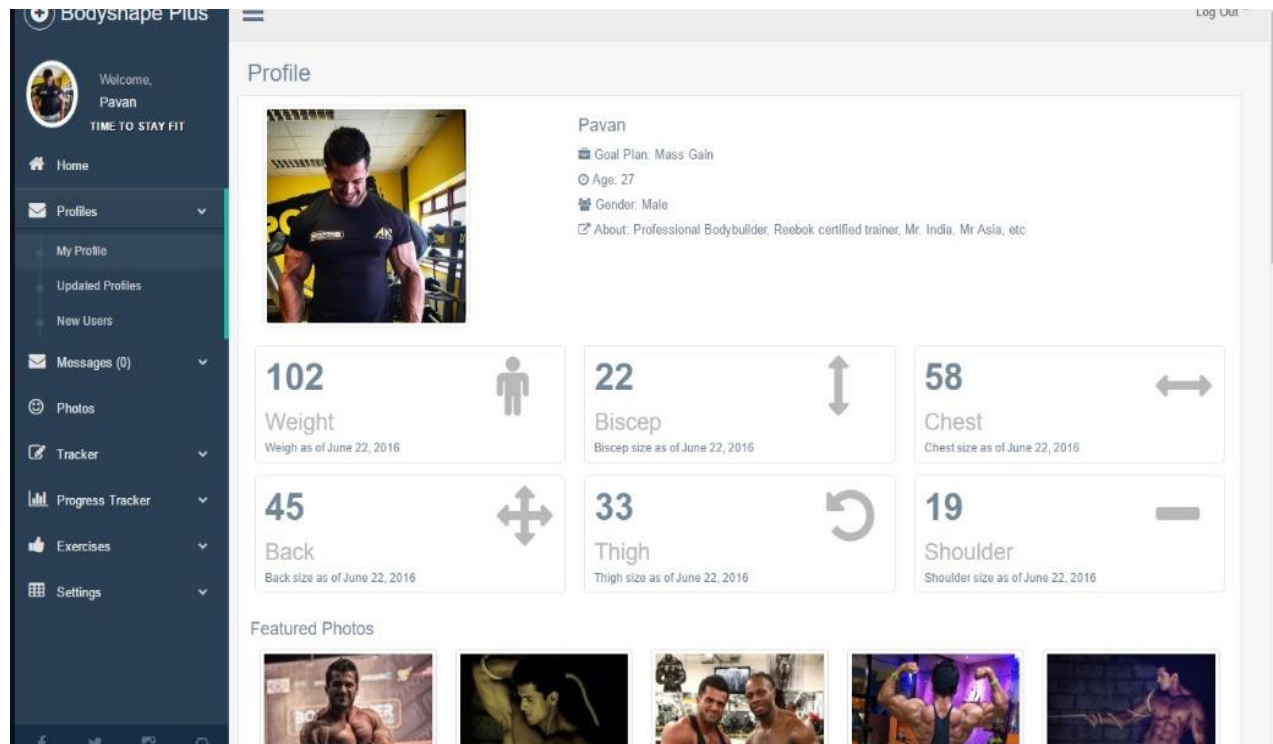


Requests/sec (Avg)



Errors (total)



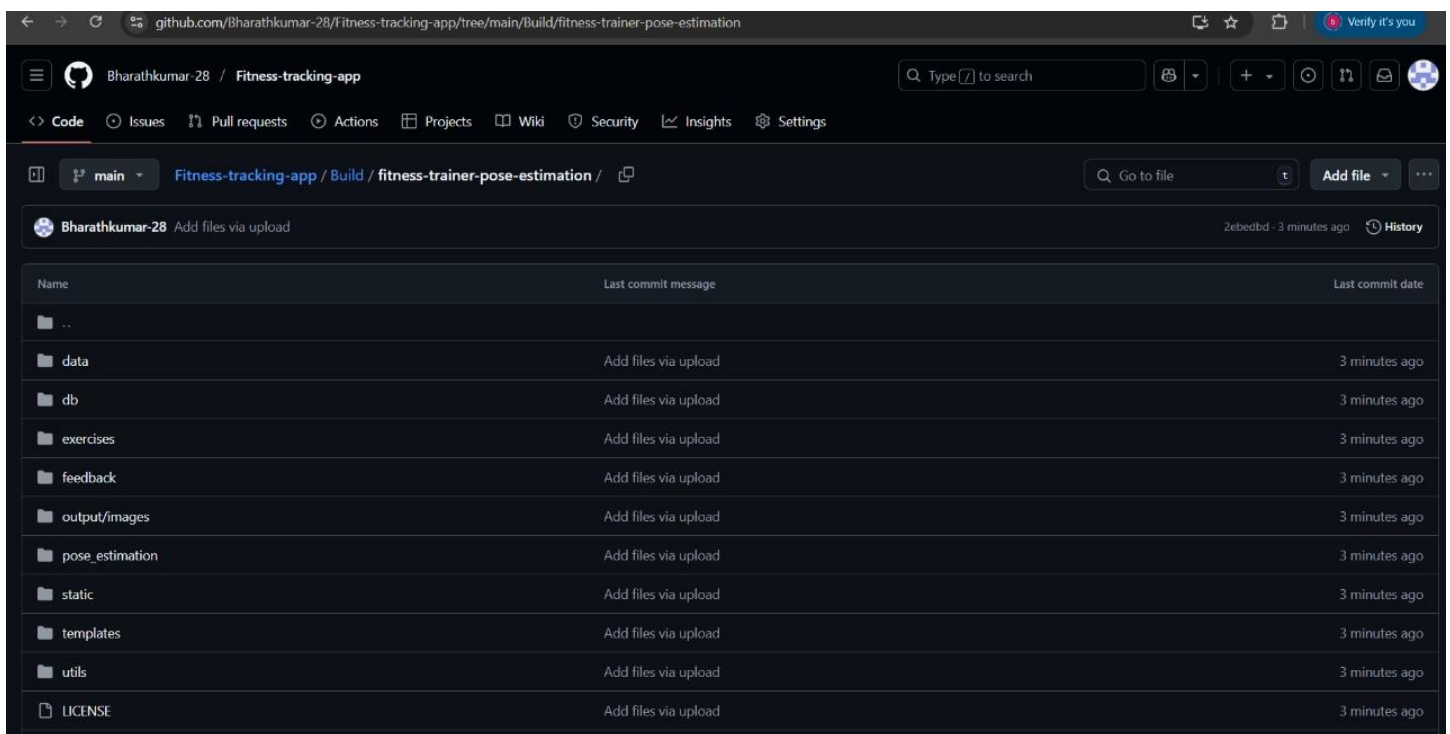


RESULT:Successfully created AzureLoadTestingresourceandexecutedaloadtestto assess the performance of the specified endpoint.

Exp.No:10	GITHUBPROJECTSTRUCTURE&NAMINGCONVENTIONS
Date:02/05/2025	

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 Social Network Platform project.

GITHUBPROJECTSTRUCTURE



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.