RAJALAKSHMI ENGINEERING COLLEGE
An AUTONOMOUS Institution
Affiliated to ANNA UNIVERSITY, Chennai

DEPARTMENTOFINFORMATIONTECHNOLOGY LAB MANUAL

CS23432–SoftwareConstruction

(REGULATION2023)

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Semester: IV

AcademicYear: 2024-2025

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9.	25/04/25	LoadTestingandPipelines.
10.	02/05/25	GitHub: Project Structure & Naming Conventions.

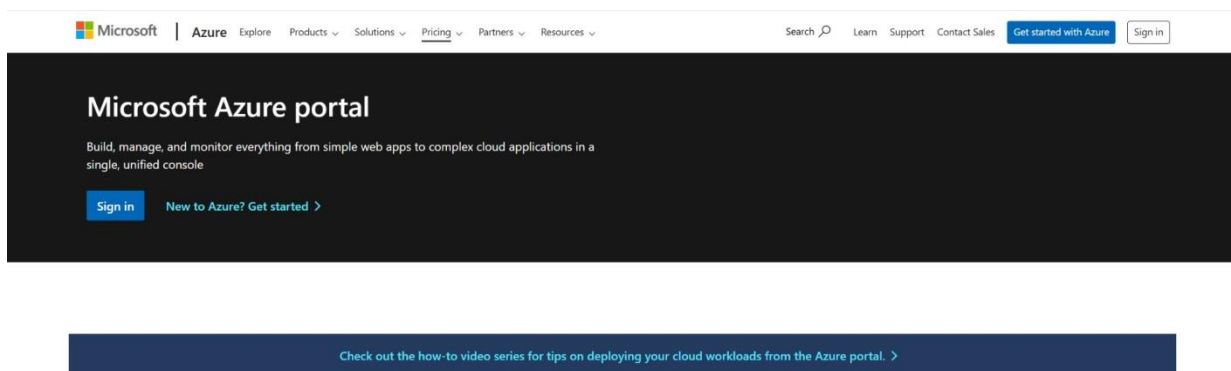| Exp.No:1	**AZUREDEVOPSENVIRONMENTSETUP**
Date:22/01/2025	

AIM: TosetupandaccesstheAzureDevOpsenvironmentbycreatinganorganizationthrough 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.

Ifyoudon'thaveaMicrosoftaccount,youcancreateonehere:https://signup.live.com/?lic=1
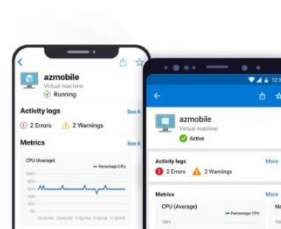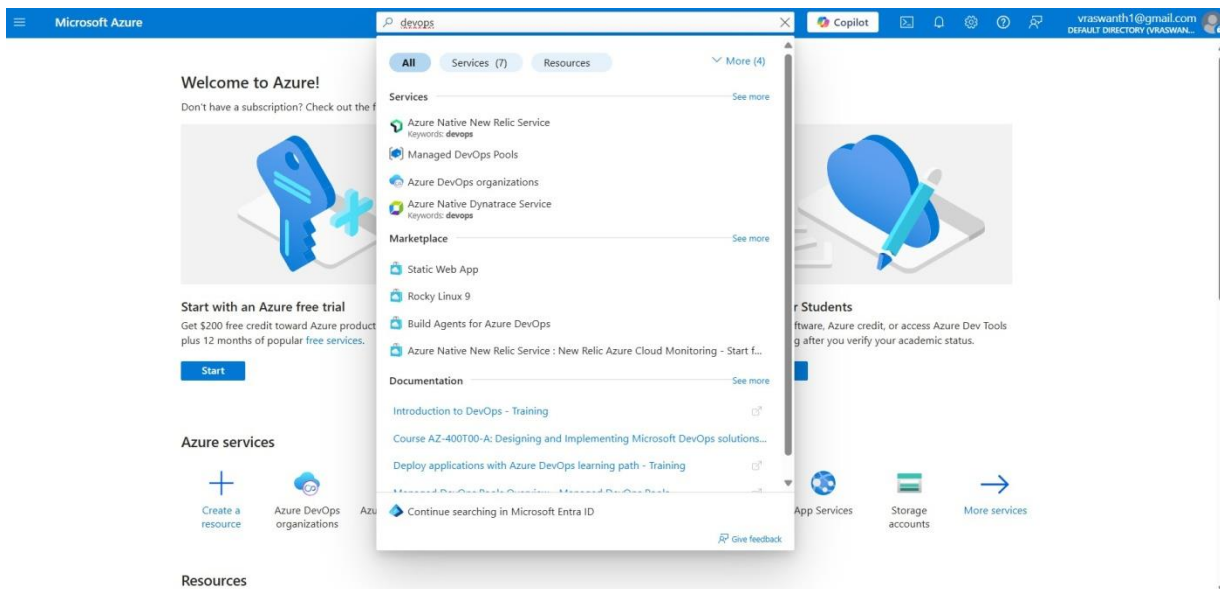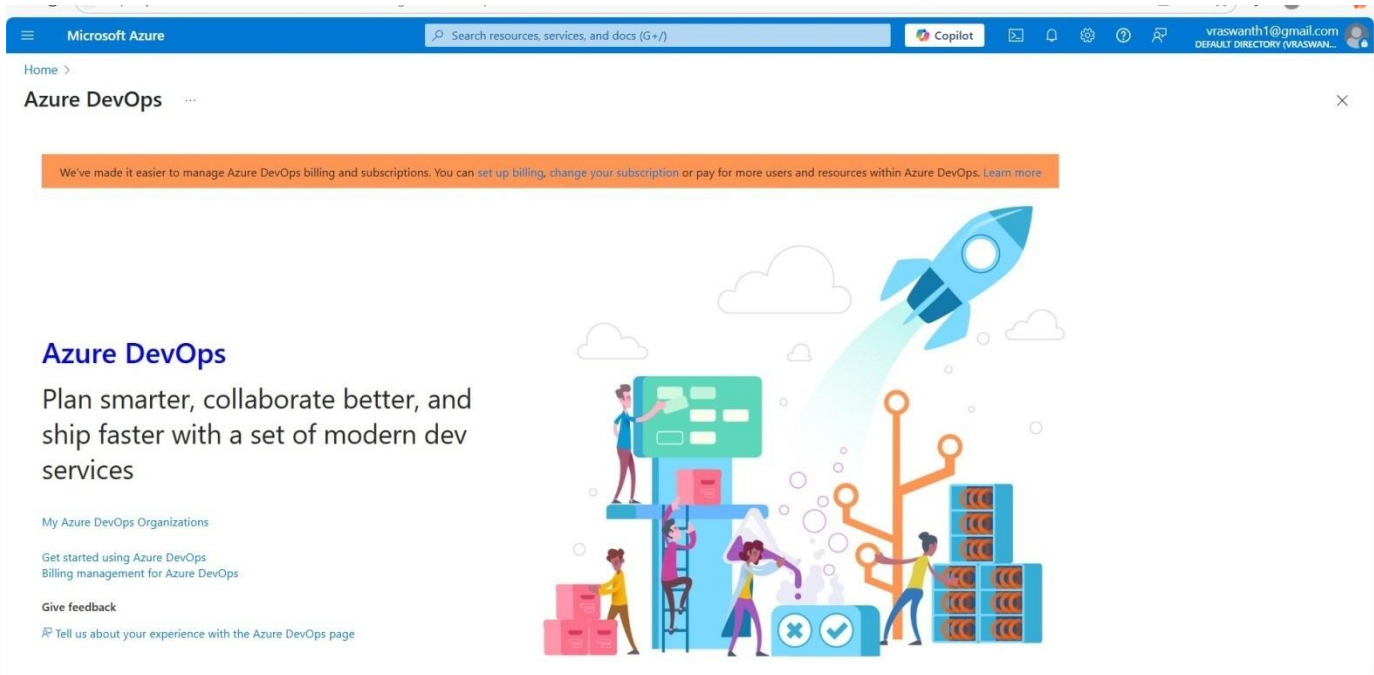
2. Azurehome page
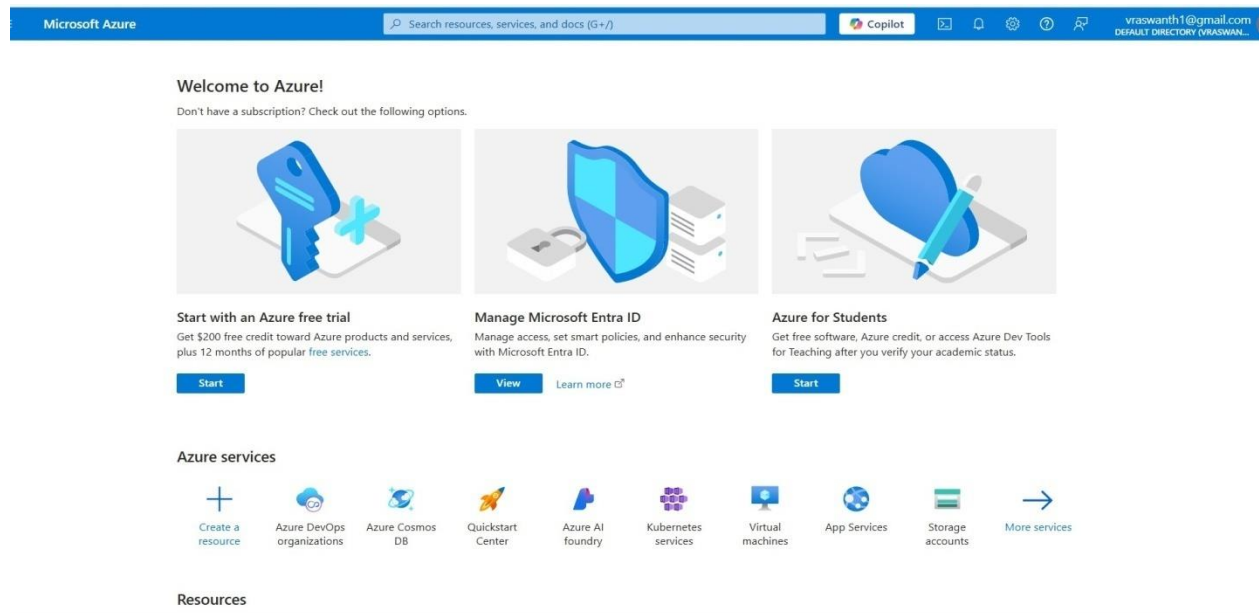
3. Open DevOpsenvironmentintheAzureplatformbytyping***AzureDevOpsOrganizations***inthesearchbar.

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
Date:07/02/2025	MANAGEMENT

AIM: TosetupanAzureDevOpsprojectforefficientcollaborationandagileworkmanagement.

STEPS:

1.CreateAnAzureAccount

2. Create the First Project in Your Organization
   a. After the organization is setup, 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 setup your first project.

Create a project to get started

Project name *

| Fitness tracking app |

Description

Visibility

⊕	◯	🔒	◉
Public		Private	
Anyone on the internet can view the project. Certain features like TFVC are not supported.		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.

4. Project dashboard

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** a 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.

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

Exp.No:3	SETTINGUPEPICSFEATURESANDUSERSTORIESFOR
Date:14/02/2025	PROJECT PLANNING

AIM: Tolearnabouthowtocreateepics,userstory,features,backlogsforyourassignedproject.

1. Fill in Epics

2. Fill in Features

♕ EPIC 6

6   Nutrition & Health Tracking

👤 No one selected   💬 0 Comments Add Tag   💾 Save and Close ⌄   👁 Follow ⚙ ⟳ ↺ ⋮

| State | ● New | Area | Fitness tracking app | Updated by Dinesh S: 27 Mar |
| Reason | 🔒 New | Iteration | Fitness tracking app\Iteration 1 | 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

Priority
2

Risk

Effort

Business Value

Time Criticality

Start Date
Select a date...   📅

Target Date
Select 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 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

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 selected   💬 0 Comments Add Tag   💾 Save   👁 Follow ⚙ ⟳ ↺ ⋮

| State | ● New | Area | Fitness tracking app | Updated by Dinesh S: 27 Ma |
| 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

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. Fill in Task Details

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

Exp.No:4	
Date:20/03/2025	**SPRINTPLANNING**

AIM: ToassignuserstorytospecificsprintfortheFitness tracking app.

SPRINTPLANNING

Sprint1

Sprint2

Fitness tracking app Team ⌄ ☆ 👥 | + New Work Item | Column Options

Taskboard Backlog Capacity Analytics

Iteration 1 ⌄   Person: All ⌄

No iteration dates ⓘ
Set dates

	New	Active	Resolved	Closed
⌃ Collapse all				
▼ 📖 35 As a user, I want to track my water intake so that I can stay hydrated. ● New Unassigned ⌄				
▼ 📖 34 As a user, I want to log my daily meals so that I can track my calorie intake. ● New Unassigned ⌄				
▼ 📖 33 As a user, I want to share my achievements on social media so that I can inspire others. ● New Unassigned ⌄				

Sprint3

Fitness tracking app Team ⌄ ☆ 👥 | + New Work Item | Column Options

Taskboard Backlog Capacity Analytics

Iteration 1 ⌄   Person: All ⌄

No iteration dates ☾
Set dates

|	New	Active	Resolved	Closed
⌃ Collapse all				
▼ 📖 32 As a user, I want to earn badges for milestones (e.g., 10,000 steps in a day) so that I feel rewarded ● New Unassigned ⌄				
▼ 📖 31 As a user, I want to challenge my friends to fitness competitions so that I can stay engaged. ● New Unassigned ⌄				
▼ 📖 30 As a user, I want to add friends so that I can compare workouts and stay motivated. ● New Unassigned				

Sprint4

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			

State	● New	Area	Fitness tracking app	Updated by Dinesh S: 27 M...
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	DESIGNINGCLASSANDSEQUENCEDIAGRAMSFORPROJECTAR CHITECTURE
Date: 04/04/2025	

AIM: ToDesignaClassDiagramandSequenceDiagramforthegivenProject.

6A.CLASSDIAGRAM
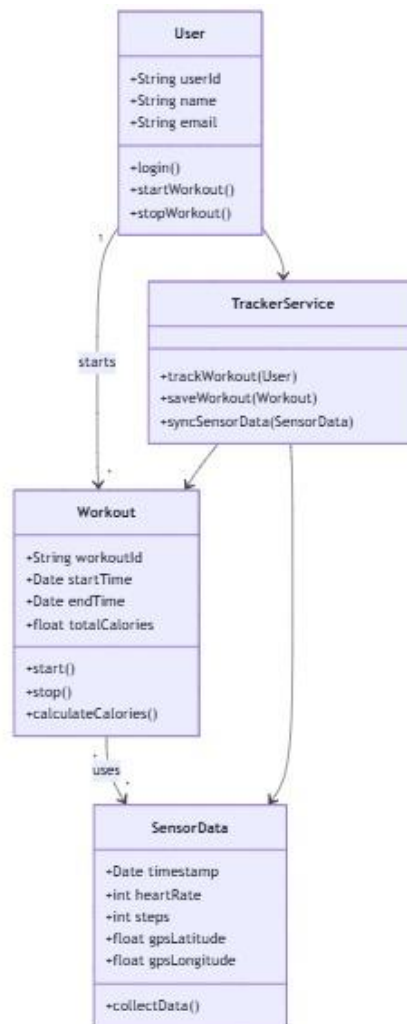
6B.SEQUENCEDIAGRAM
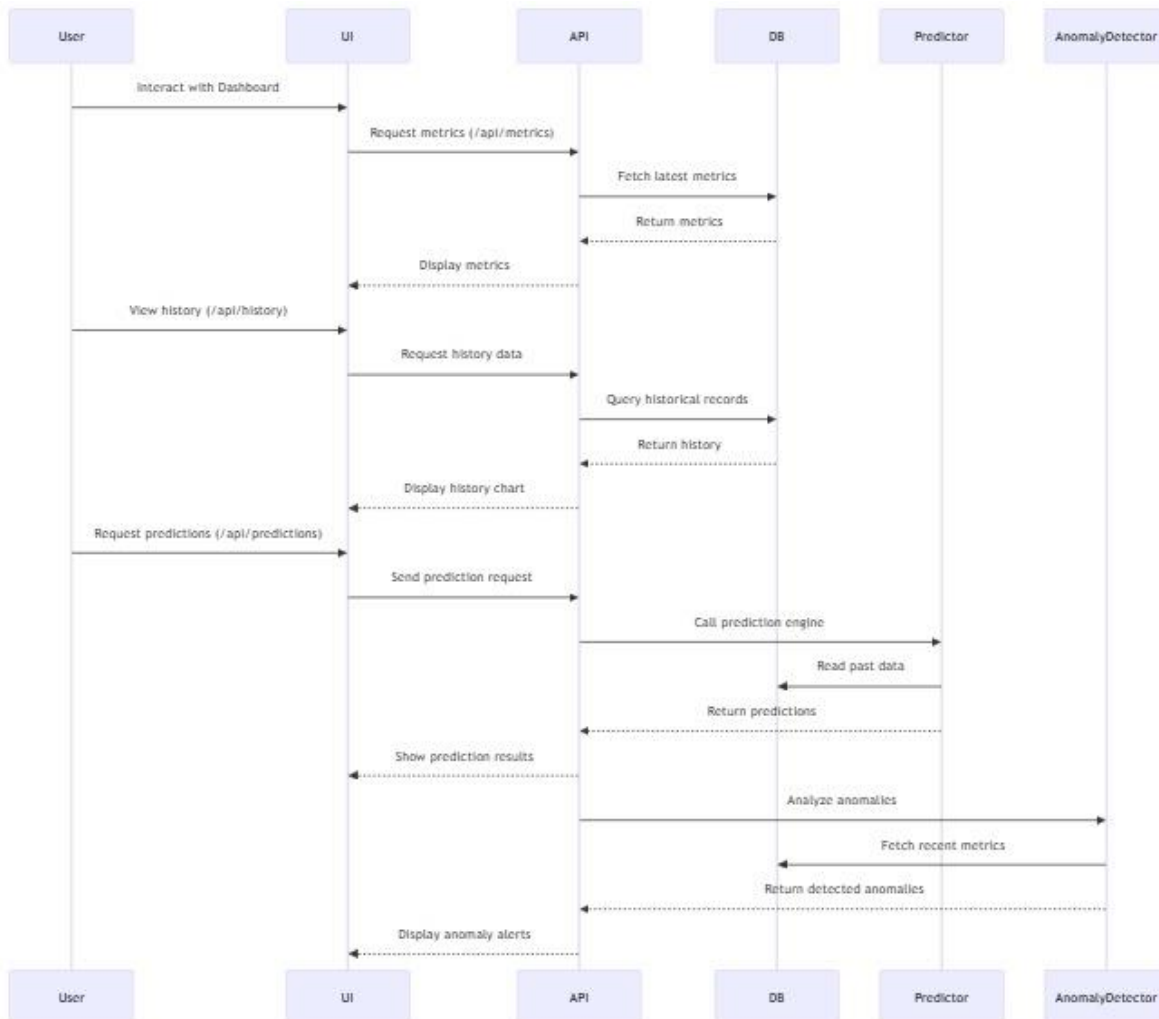
RESULT: TheClassDiagramandSequenceDiagramisdesignedSuccessfullyforthe Fitness tracking app.

Exp.No:7	DESIGNINGARCHITECTURALANDERDIAGRAMSFOR
Date:16/04/2025	PROJECT STRUCTURE

AIM: ToDesignanArchitecturalDiagramandERDiagramforthegivenProject.

7A.ARCHITECTURALDIAGRAM

7B.ER DIAGRAM
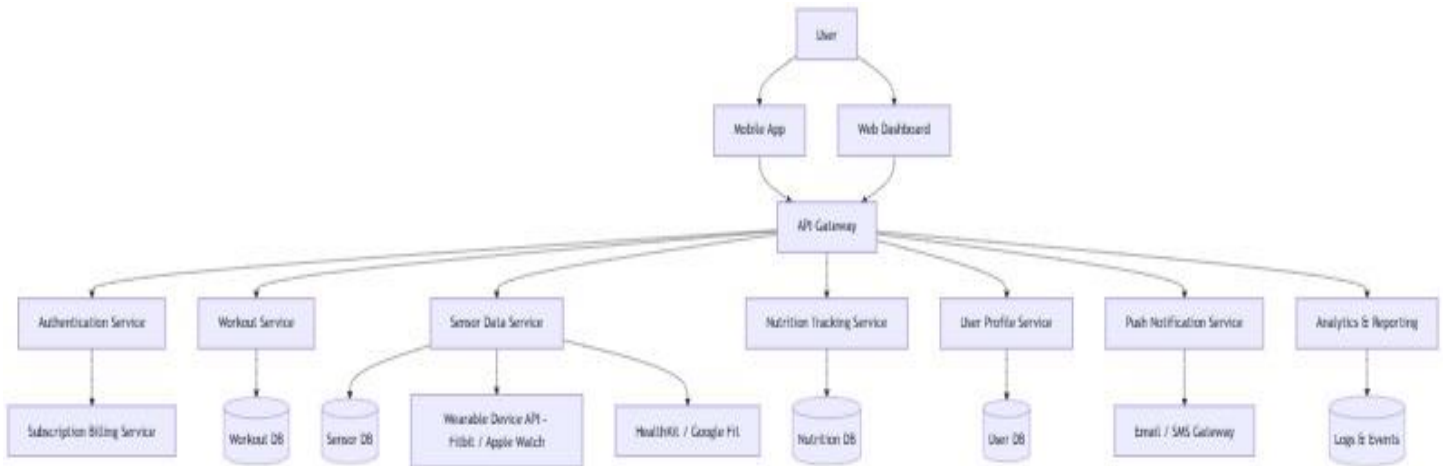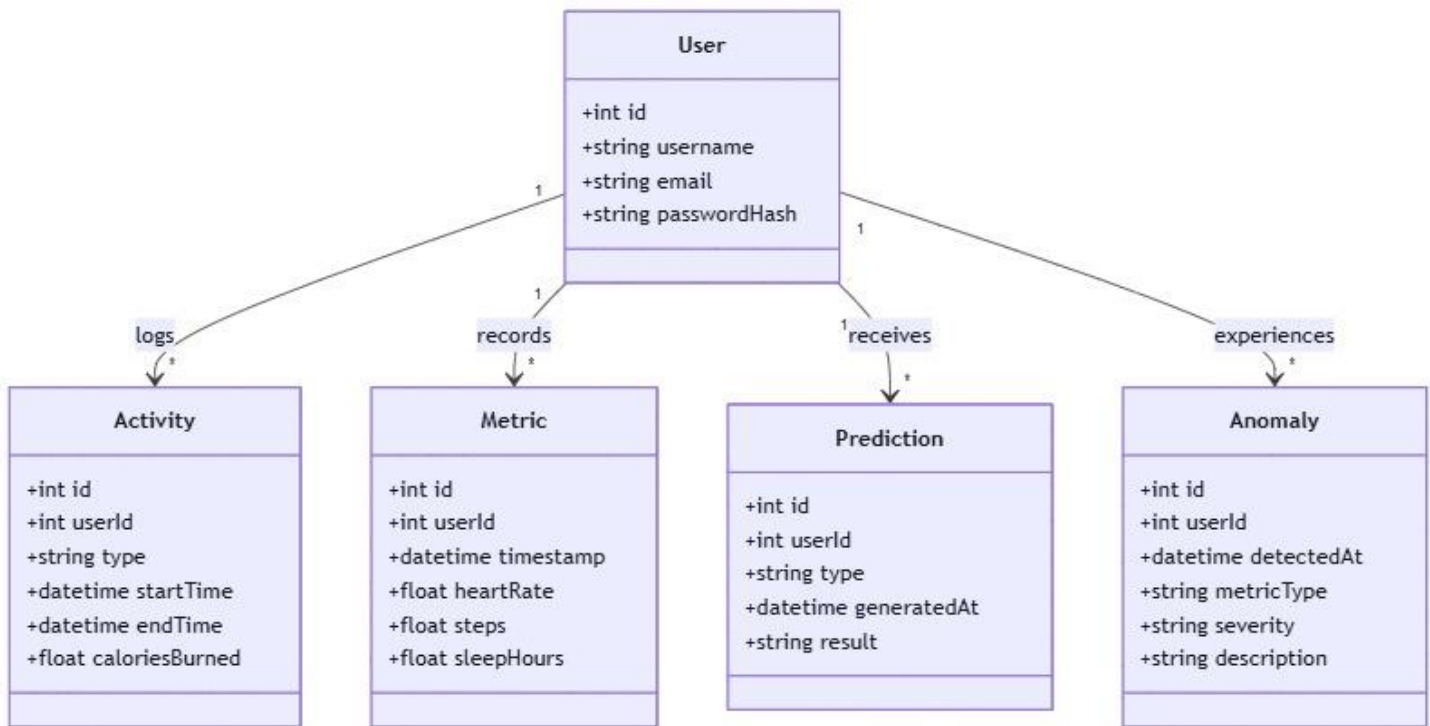

User

+int id
+string username
+string email
+string passwordHash

Activity

+int id
+int userId
+string type
+datetime startTime
+datetime endTime
+float caloriesBurned

Metric

+int id
+int userId
+datetime timestamp
+float heartRate
+float steps
+float sleepHours

Prediction

+int id
+int userId
+string type
+datetime generatedAt
+string result

Anomaly

+int id
+int userId
+datetime detectedAt
+string metricType
+string severity
+string description

logs   records   receives   experiences

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

- Focusedonsuccessfulflowswhereinputsarevalidandsystems behaveasexpected.
- Examples:
    - Usersignsupsuccessfully
    - Createanewpost
    - Sendsmessagetoanotheruser
    - Viewsnotif I cationsfornewcomments

4. DesignErrorPathTestCases

- Focusedonhandlinginvalid,missing,orunexpectedinputs.
- Examples:
    - Registrationfailsduetoexistingemail
    - Postcreationdeniedduetoemptycontent
    - Messagenotsentwhenuserisblocked
    - Unauthorizedaccesstoanotheruser'sprofile

5. BreakDownStepsandExpectedResults

Each test case includes:

- Step-by-stepactions
- Inputvalues
- Expectedresults

Thisensuresreproducibilityandeasyautomationlater.

6. UseClearNamingandIDs

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

7. SeparateTestSuites

Organizetestcasesbasedonfunctionalmodules:

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

1. Newtestplan

🗐 New Test Plan

Name *

Social Network Platform - Functional validation platform

Area Path *

Social Network Platform ⌄

Iteration *

Social Network Platform\Sprint 1   2/1/2025 - 5/31/2025 ⌄

Create   Cancel

2. Testsuite

3. Testcase

Give two test cases for at least five userstories showcasing the happy path and errors cenarios in azure DevOps platform.

Social Network Platform – Test Plans

UserStories – 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:Asauser,Iwanttosignupusingmyemailandpassword,sothatIcancreateanaccount securely.

TestType: HappyPath

StepsandExpectedResults:

- **Action:**Navigatetotheregistrationpage

  ExpectedResult: Registrationpagewithemailandpasswordfieldsisdisplayed

- **Action:**Enteravalidemailandstrongpassword

  ExpectedResult: Inputisacceptedwithnovalidationerrors

- **Action:**Clickonthe"Register"button

  ExpectedResult: Useristakentotheemailverificationscreen

Notes:

Ensuretheemailisnotalreadyregistered.Simulatessuccessfulemail/passwordregistration.

TestCase:TC02–RegisterwithAlreadyRegisteredEmail

UserStory: Asauser,Iwanttosignupusingmyemailandpassword,sothatIcancreateanaccount securely.

TestType: ErrorPath

StepsandExpectedResults:

- **Action:**Navigatetotheregistrationpage

  ExpectedResult: Registrationformisdisplayed

- **Action:**Enteranemailthatisalreadyregistered

  ExpectedResult: Emailfieldishighlightedorflagged

- **Action:**Clickonthe"Register"button

  ExpectedResult: Errormessage"Emailalreadyregistered"isshown

Notes:

Ensuresthesystempreventsduplicateaccounts.

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

TestCase:TC03–RegisterwithValidGoogleAccount

UserStory: Asauser,IwanttosignupusingmyGoogleorFacebookaccount,sothatIcancreatean account quickly.

TestType: HappyPath

StepsandExpectedResults:

- **Action:**Navigatetotheregistrationpage

  ExpectedResult: RegistrationoptionsforGoogleandFacebookaredisplayed
- **Action:**Clickon"SignupwithGoogle"

  ExpectedResult: GoogleOAuthloginscreenappears
- **Action:**ChooseavalidGoogleaccountandgrantpermission

  ExpectedResult: Userisredirectedbackandaccountiscreated
- **Action:**Confirmsuccessfulregistration

  ExpectedResult: Useristakentothewelcomescreenoremailverificationpage(ifrequired)

Notes:

EnsureOAuthcredentialsareproperlyconfigured.Testaccountmustnotalreadyexistinthesystem.

TestCase:TC04–RegisterwithDeniedOAuthPermission(Google/Facebook)

UserStory: Asauser,IwanttosignupusingmyGoogleorFacebookaccount,sothatIcancreatean account quickly.

TestType: ErrorPath

StepsandExpectedResults:

- **Action:**Navigatetotheregistrationpage

  ExpectedResult: Socialmediasign-upoptionsareshown
- **Action:**Clickon"SignupwithGoogle"or"SignupwithFacebook"

  ExpectedResult:OAuthpermissionscreenisdisplayed
- **Action:**Click"Cancel"ordenypermission

  ExpectedResult: Registrationprocessishalted

Notes:

SystemshouldhandleOAuthdenialgracefullyandallowusertoretryorchooseanothermethod.

TESTSUITE:TS03-VerifyEmailafterRegistration(ID:118) Test

Case: TC05 – Verify Email After Successful Registration

UserStory: Asauser,Iwanttoverifymyemailafterregistration,sothatIcanactivatemyaccount.

TestType: HappyPath

StepsandExpectedResults:

- **Action:**Completetheregistrationprocessusingemailandpassword

  ExpectedResult: Registrationissuccessful,andaverificationemailissent

- **Action:**Opentheemailinboxandclicktheverificationlink

  ExpectedResult: Userisredirectedtotheverificationconfirmationpage

- **Action:**Attempttologinafterverification

  ExpectedResult: Loginissuccessful,anduserisredirectedtothedashboard

Notes:

Ensuretheverificationlinkisuniqueandonlyusableonce.Simulatesatypicalsuccessfulverification flow.

TestCase:TC06–EmailVerificationwithExpiredorInvalidLink

UserStory: Asauser,Iwanttoverifymyemailafterregistration,sothatIcanactivatemyaccount.

TestType: ErrorPath

StepsandExpectedResults:

- **Action:**Completetheregistrationandreceivetheverificationemail

  ExpectedResult: Emailwithverificationlinkisreceived

- **Action:**Waitforthelinktoexpireormodifythelinkmanually

  ExpectedResult: Theverificationlinkbecomesinvalid

- **Action:**Clicktheexpiredorinvalidverificationlink

  ExpectedResult: Errormessage"Verificationlinkisinvalidorexpired"isshown

Notes:

Systemshouldpromptheusertorequestanewverificationlinkandnotactivatetheaccountuntil successful verification.

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

Case: TC07 – Login with Valid Email and Password

UserStory: Asauser,Iwanttologinusingmyregisteredemailandpassword,sothatIcanaccessmy account.

TestType:HappyPath

StepsandExpectedResults:

- **Action**:Navigatetotheloginpage

  ExpectedResult: Loginpageisdisplayedwithemailandpasswordfields

- **Action:**Enteravalidregisteredemailandcorrectpassword

  ExpectedResult: Inputisacceptedwithnovalidationerrors

- **Action**:Clickthe"Login"button

  ExpectedResult: Userisredirectedtotheaccountdashboard

Notes:

Ensurethetestaccountisverifiedandactivebeforetesting.Thissimulatesasuccessfullogin.

TestCase:TC08–LoginwithInvalidPassword

UserStory: Asauser,Iwanttologinusingmyregisteredemailandpassword,sothatIcanaccessmy account.

TestType: ErrorPath

StepsandExpectedResults:

- **Action:**Navigatetotheloginpage

  ExpectedResult: Loginpageisdisplayed

- **Action:**Enteravalidregisteredemailandincorrectpassword

  ExpectedResult: Passwordisflaggedasincorrect

- **Action:**Clickthe"Login"button

  ExpectedResult: Errormessage"Incorrectpassword"isdisplayed,anduserremainsonlogin page

Notes:

SystemshouldlimitrepeatedfailedattemptsandmaypromptCAPTCHAorlockoutmechanismsafter multiple failures.

TESTSUITE:TS05-LoginwithSocialMedia(ID:124) Test

Case: TC09 – Login with Valid Google Account

UserStory: Asauser,IwanttologinusingmyGoogleorFacebookaccount,sothatIdon'tneedto remember my password.

TestType: HappyPath

StepsandExpectedResults:

- **Action:**Navigatetotheloginpage

  ExpectedResult: LoginpagedisplaysoptionstologinwithGoogleandFacebook

- **Action:**Clickthe"LoginwithGoogle"button

  ExpectedResult: GoogleOAuthscreenappears

- **Action:**SelectavalidGoogleaccountandauthorizeaccess

  ExpectedResult: Userisredirectedbackandloggedintotheiraccountdashboard

Notes:

EnsuretheGoogleaccountisalreadylinkedormatchesanexistinguserprofile.OAuthintegrationmust be correctly configured.

TestCase:TC10–LoginwithDeniedOAuthPermission(Google/Facebook)

UserStory: Asauser,IwanttologinusingmyGoogleorFacebookaccount,sothatIdon'tneedto remember my password.

TestType: ErrorPath

StepsandExpectedResults:

- **Action:**Navigatetotheloginpage

  ExpectedResult: Socialloginoptionsarevisible

- **Action:**Click"LoginwithGoogle"or"LoginwithFacebook"

  ExpectedResult:OAuthconsentscreenappears

- **Action:**Click"Cancel"ordenyauthorization

  ExpectedResult: Userisredirectedbackwitherrormessage"Logincancelledorpermission denied"

TestCases

TEST CASE 41

41   Successful Sign Up

👤 DS Dinesh S   💬 0 Comments Add Tag   💾 Save   👁 Follow   ⚙   ↻   ↶   ⋮

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** *I* U̲

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

⌄ **Parameter values**

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

TEST CASE 42

42   Login with wrong password

👤 DS Dinesh S   💬 0 Comments Add Tag   💾 Save   👁 Follow   ⚙   C   ↶   ⋮

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** *I* U̲

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.

Search

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)
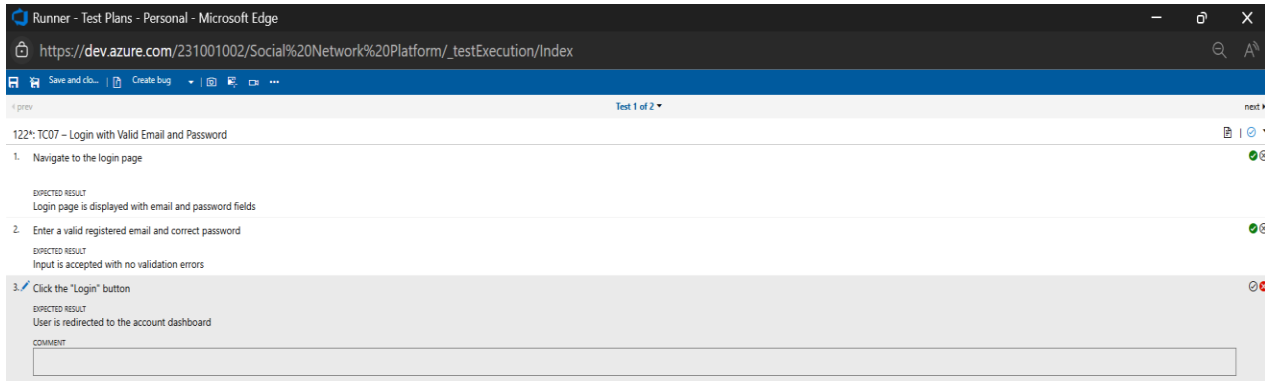 - 🗀 Activity Logging (2)
  - 🗀 User Authentications (2)

Activity Logging (ID: 43) ⓘ Help

Define **Execute** Chart

Test Points (2 items) ✅ ∨ | Run for web application ∨ |

☑ Title	Outcome	Order	Test Case Id
☐ Log new workout session	✅ Passed	1	44
☑ Log Workout with missing fields	✅ Passed	2	45

Search

Fitness tracking app

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

← Fitness App Core ...

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Test Suites

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∨ Fitness App Core Features
  - 🗀 Anomaly Detection (2)
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  - 🗀 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
☐ Successful Sign Up	✅ Passed	1	41
☑ Login with wrong password	✅ Passed	2	42

TEST CASE 42

42   Login with wrong password

DS   Dinesh S   💬 0 Comments   **Add Tag**   🖫 Save   👁 Follow   ⚙   C   ↺   ⋮

| 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

🖼 🖼 🖼   ↑ ↓ ✕   [@] 📎   **B** *I* U̲

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.

4. Installation of test

Test and feedback

Overview

Showingitasanextension

5. Runningthetestcases

6. Recording the test case

7. Creating the bug

8. Testcaseresults

9. Testreportsummary

• Assigningbugtothedeveloperandchangingstate

10. Progressreport

11. Changing the test template

12. View the new test case template

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: TocreateanAzureLoadTestingresourceandrunaloadtesttoevaluatetheperformanceof a target endpoint.

LOADTESTING

StepstoCreateanAzureLoadTestingResource:

Beforeyourunyourfirsttest,youneedtocreatetheAzureLoadTestingresource:

1. SignintoAzurePortal

   Gotohttps://portal.azure.comandlogin.

2. CreatetheResourceoGoto*Createaresource*→Searchfor"AzureLoadTesting".

   o SelectAzureLoadTestingandclickCreate.

3. FillintheConfigurationDetails

   o Subscriptio*n:*ChooseyourAzuresubscription

   o *ResourceGroup:*Createneworselectanexistingone.

   o *Name:*Provideauniquename(nospecialcharacters).

   o *Location:*Choosetheregionforhostingtheresource.

4. (Optional)Configuretagsforcategorizationandbilling.
5. ClickReview+Create,thenCreate.
6. Oncedeploymentiscomplete,clickGotoresource.

StepstoCreateandRunaLoadTest:

Onceyourresourceisready:

1. GotoyourAzureLoadTestingresourceandclickAddHTTPrequests>Create.

2. BasicsTabo   *TestName:*Provide a uniquename.

   o   *Description:*(Optional)Addtestpurpose.

   o   *RunAfterCreation:*Keepchecked.

3. LoadSettingso*TestURL:*Enterthetargetendpoint(e.g.,https://yourapi.com/products).

4. ClickReview+Create→Createtostartthetest.

LoadTesting

TestRun_4/18/2025_2:15:44 PM ···

Last updated by: 23180107@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)
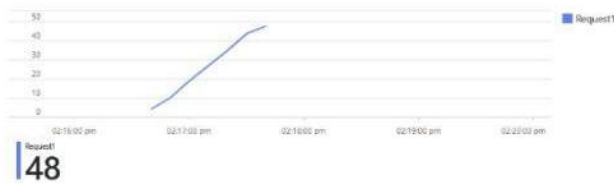
Test run details

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

Load test results   Engine health
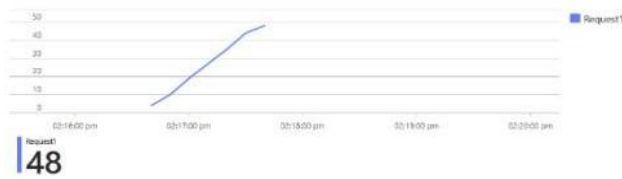
Client-side metrics

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)

Request1
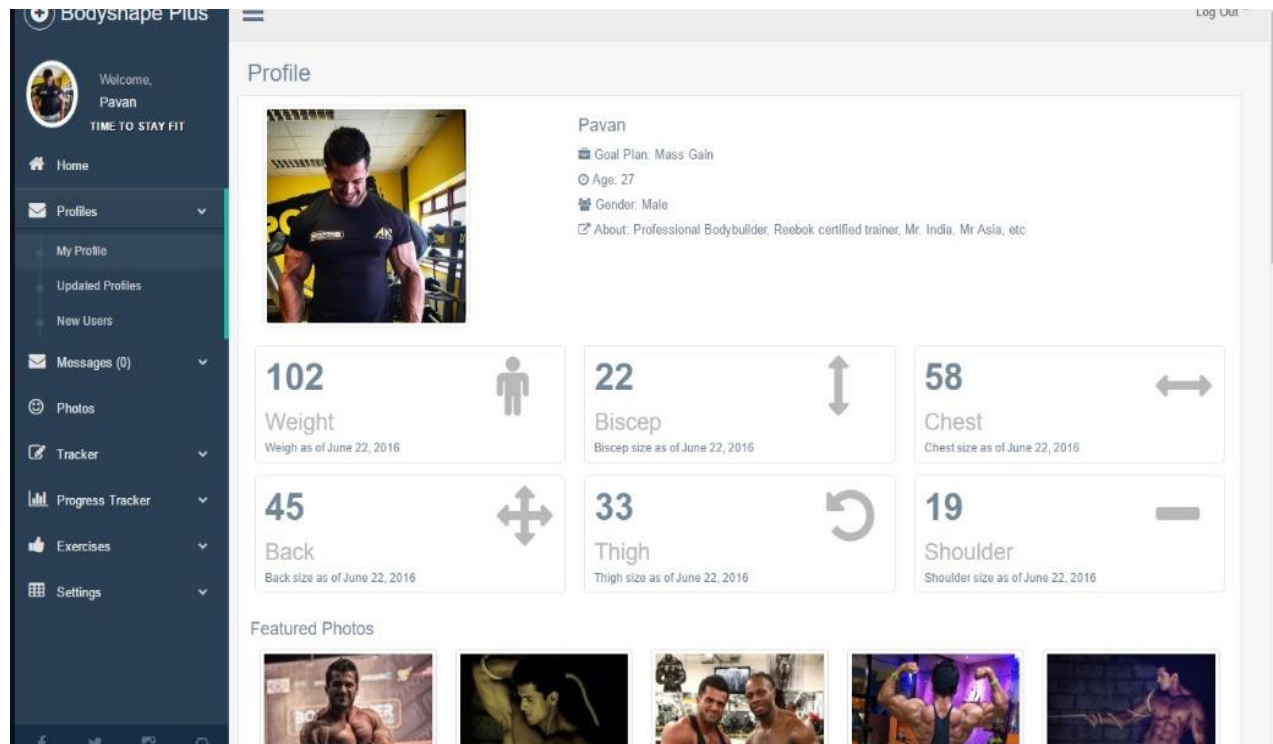48

Request1 Pct 90
1 ms

Requests/sec (Avg)

Errors (total)

Requests/sec (Avg)

Request1
14.09 K/s

Errors (total)

Request1 N...
Request1 N...
Aggregate

Request1 Non HTTP respo...
493.11 K

Request1 Non HTTP respo...
2

Aggregate
493.11 K

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

Exp.No:10	GITHUBPROJECTSTRUCTURE&NAMINGCONVEN TIONS
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
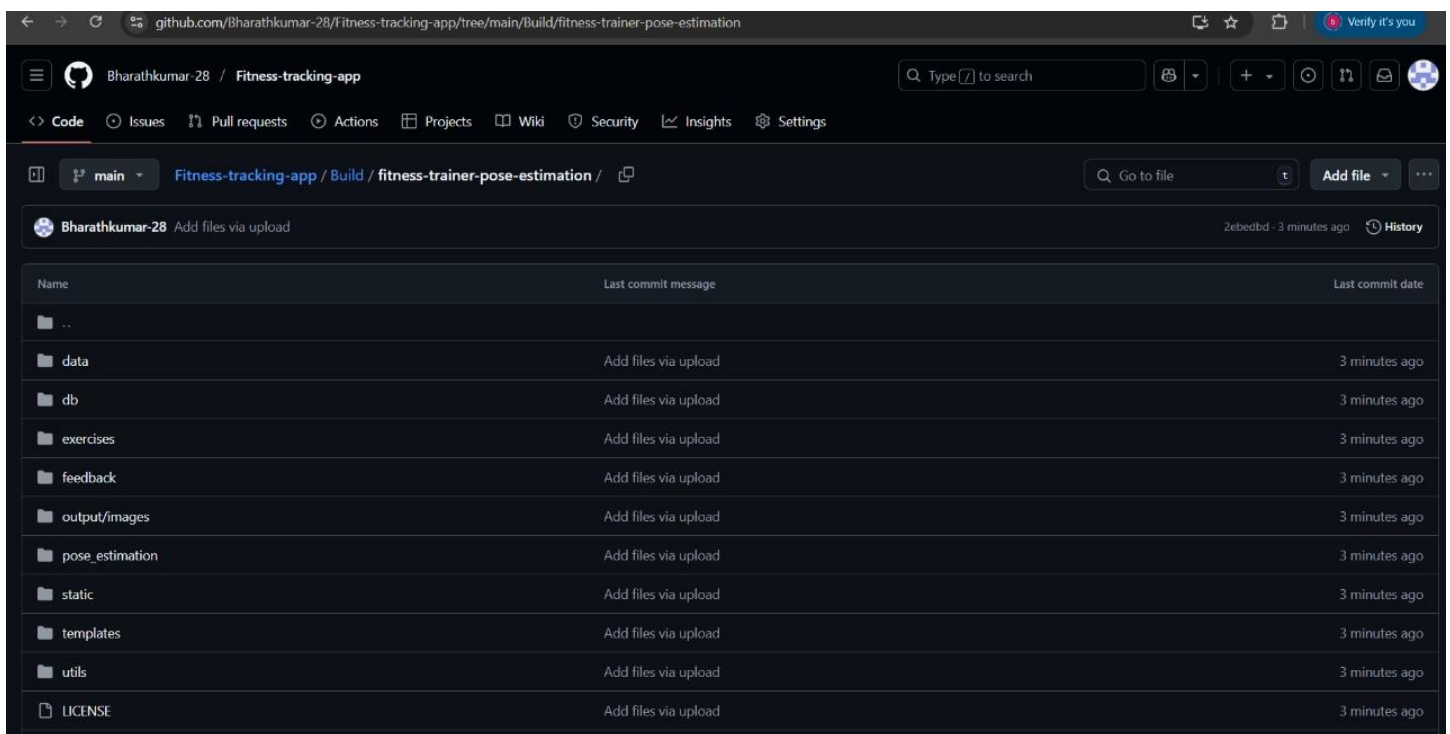
RESULT: TheGitHubrepositoryclearlydisplaystheorganizedprojectstructureandconsistent naming conventions, making it easy for users and contributors to understand and navigate the codebase.