

## ISE-2 FOR Practical

### Assignment: Evaluation of JIRA and Testing Tools for Course Scheduling

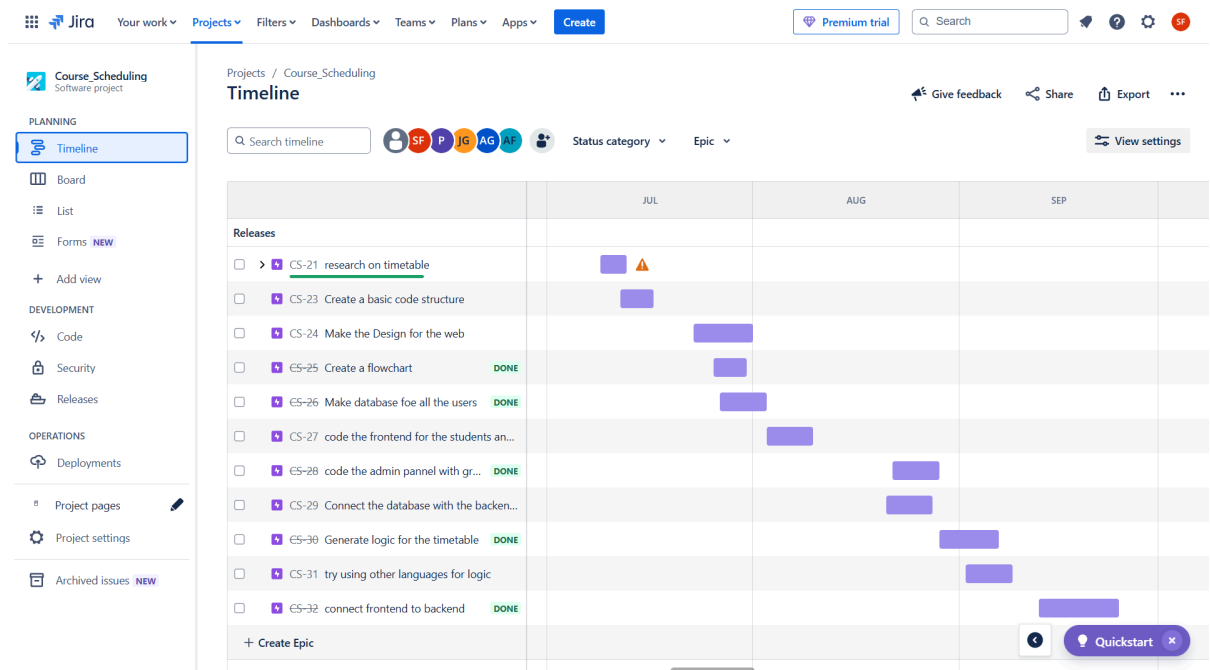
#### System Total Marks: 25

Based on the requirements specification document provided for the course scheduling system, this assignment evaluates your understanding and practical application of JIRA and testing tools. Answer each question in detail, demonstrating your approach and explaining the use of tools where applicable.

#### Project Tracking, Requirement Breakdown, and Defect Management in JIRA (10 Marks – CO: CSC502.5)

- **Requirement Tracking: Describe how you would structure a JIRA project to manage the requirements for the course scheduling system, covering project setup, task breakdown, and the use of epics and stories.**

Create a JIRA project with epics for major features, break tasks into stories, and use sprints for milestone tracking.



- **Defect Tracking:** Identify three types of potential errors (e.g., input file errors, scheduling conflicts) based on the requirements, and explain how you would log and manage these issues in JIRA, focusing on risk identification and change management.

**Jira** Your work ▾ Projects ▾ Filters ▾ Dashboards ▾ Teams ▾ Plans ▾ Apps ▾ Create Premium trial Q Search 🔔 ? ⚙️ SF

**Course\_Scheduling**  
Software project

PLANNING  
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<input type="checkbox"/>	Type	# Key	Summary	Status	Assignee	Due date	Labels	+
<input type="checkbox"/>	<input checked="" type="checkbox"/>	CS-2	Do research work on timetable of all the branches	DONE	AF aryan figer	Jul 23, 2024	research	
<input type="checkbox"/>	> <input checked="" type="checkbox"/>	CS-3	Create a excel file for Students, Teachers, Classroom	DONE	P Pratyay	Jul 24, 2024		
<input type="checkbox"/>	<input checked="" type="checkbox"/>	CS-4	Create a Students Course input form	DONE	SF Sanyo Fonseca	Jul 30, 2024		
<input type="checkbox"/>	<input checked="" type="checkbox"/>	CS-5	Collect the New syllabus data for all the braches	DONE	JG Jonathan Gomes	Jul 23, 2024	research	
<input type="checkbox"/>	<input checked="" type="checkbox"/>	CS-6	Make a flow chart for entire working of the system	DONE	AG Adarsh Gupta		design	
<input type="checkbox"/>	<input checked="" type="checkbox"/>	CS-7	Making it in Reactjs and Expressjs with MongoDB as the Dat...	DONE	P Pratyay		form	
<input type="checkbox"/>	<input checked="" type="checkbox"/>	CS-8	Generate a logic code for the titmetable	TO DO	JG Jonathan Gomes			
<input type="checkbox"/>	<input checked="" type="checkbox"/>	CS-9	Create a Level 1 diagram for teachers, students, admin	DONE	AF aryan figer	Aug 3, 2024	design	
<input type="checkbox"/>	<input checked="" type="checkbox"/>	CS-10	Create a level 2 diagram for teachers, students, Admin	TO DO	AG Adarsh Gupta	Aug 6, 2024	design	
<input type="checkbox"/>	<input checked="" type="checkbox"/>	CS-11	Create a figma design for the frontend of the system	IN PROGRESS	AG Adarsh Gupta	Aug 7, 2024	design	
<input type="checkbox"/>	<input checked="" type="checkbox"/>	CS-12	Make a landing page for the user	IN PROGRESS	SF Sanyo Fonseca	Aug 6, 2024	design	
<input type="checkbox"/>	<input checked="" type="checkbox"/>	CS-13	create a students frontend page where he can submit the co...	TO DO	SF Sanyo Fonseca			
<input type="checkbox"/>	<input checked="" type="checkbox"/>	CS-15	Create a frontend page of Admin where he can upload the cs...	IN PROGRESS	SF Sanyo Fonseca			

+ Create Quickstart

- **Progress Monitoring:** Explain how JIRA can help in tracking project progress and implementing requirement changes effectively.

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Premium trial Search ? ⚙️ 🔔

Course\_Scheduling Software project

PLANNING

Timeline

Board

List

Forms NEW

+ Add view

DEVELOPMENT

Code

Security

Releases

OPERATIONS

Deployments

Project pages

Project settings

Archived issues NEW

Projects / Course\_Scheduling

CS board

Search

SF JG AG P AG

Epic Label

GROUP BY None Insights View settings

TO DO 5

Generate a logic code for the timetable

CS-8

Create a level 2 diagram for teachers, students, Admin

design 06 AUG

CS-10

create a students frontend page where he can submit the course form

CS-13

write a code such that students upload the data goes into json file

CS-19

write a code for. when the admin upload the csv files the data

IN PROGRESS 4

Create a figma design for the frontend of the system

design 07 AUG

CS-11

Make a landing page for the user

design 06 AUG

CS-12

Create a frontend page of Admin where he can upload the csv files of students, teachers and classrooms

CS-15

Work on the database Schema for each users

CS-18

DONE 11

Do research work on timetable of all the branches

research 23 JUL

ES-2

Create a excel file for Students, Teachers, Classroom

24 JUL

ES-3

Create a Students Course input form

30 JUL

ES-4

Collect the New syllabus data for all the braches

research 23 JUL

ES-5

Quickstart

## 2. Testing Automation and Performance Testing Using Testing Tools (10 Marks – CO: CSC502.4)

- **Test Case Design:** Select three key functional requirements and describe how you would set up automated test cases for these using a testing tool. Include details on validation criteria for inputs, expected outputs, and error handling.

Test Case ID	Description	Expected Result	Status
CSV-001	Valid CSV file upload for teachers	Correct parsing, all teacher data added to system	Pass
CSV-002	Invalid CSV structure (missing columns)	Throws error or rejects file, alerts admin	Pass
CSV-003	Validate classroom seating capacities	Accepts only positive integers; rejects any non-integer input	Pass
CSV-004	Handle duplicate entries	Ignores duplicates or throws a warning	Pass
CSV-005	Large file parsing test	Successfully parses large files (1,000+ records) without performance issues	Pass

Test Case ID	Description	Expected Result	Status
ENR-001	Validate branch selection logic	Correct branches populate based on student input	Pass
ENR-002	Verify elective subject availability	Only electives relevant to branch displayed; all electives loaded for common option	Pass
ENR-003	Ensure input field validation	Rejects empty or invalid data entries	Pass
ENR-004	Boundary test on name field length	Accepts name within 1–100 characters; rejects overflows	Pass
ENR-005	Prevent duplicate enrollments	Does not allow re-enrollment for the same student	Pass

Test Case ID	Description	Expected Result	Status
TBL-001	Ensure no schedule conflicts	Classes do not overlap for students and teachers	Pass
TBL-002	Classroom capacity check during allocation	Classroom only assigned if capacity fits student enrollment	Pass
TBL-003	Confirm lunch break enforcement	1 PM - 2 PM slot remains empty for all schedules	Pass
TBL-004	Weekly subject frequency validation	Each subject occurs exactly 4 times per week, on separate days	Pass
TBL-005	Handle schedule for a maximum number of students	Timetable generated efficiently with large datasets	Pass
TBL-006	Test weekend constraints	No classes scheduled on weekends	Pass

Test Case ID	Description	Expected Result	Status
ACL-001	Verify teacher access control for student data	Teachers can view only students relevant to their assigned subjects	Pass
ACL-002	Test personalized timetable view	Teachers only see their own class schedule	Pass
ACL-003	Test unauthorized access for admin resources	Teachers cannot access admin functions or data	Pass
ACL-004	Validate logout and session termination	After logout, teacher cannot access panel until re-authenticated	Pass
ACL-005	Boundary test for maximum data display in panel	Teacher panel handles large amounts of student and schedule data smoothly	Pass

- **Performance Testing:** Given the performance constraint (generating reports within one minute for a dataset of 20 courses), outline a performance test plan and describe how you would use a testing tool to ensure compliance with this requirement.

Course Scheduling

se-cs.vercel.app

The following apply to the entire page:

en

WAVE

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web accessibility evaluation tool

Styles: OFF ON

Summary

Summary

Details

Reference

Order

Structure

Contrast

0

Errors

0

Contrast Errors

2

Alerts

1

Features

4

Structural Elements

0

ARIA

View details

Congratulations! No errors were detected! Manual testing is still necessary to ensure compliance and optimal accessibility.

h1

Select User Type

Choose your role to access specific features

h2

Student User

Access student features and resources

h2

Admin User

Manage system and user accounts

h2

Teacher User

Access teacher features and resources

</>

Code

Course Scheduling

se-cs.vercel.app/studentPage

WAVE

powered by WebAIM

web accessibility evaluation tool

Styles: OFF ON

Summary

Summary

Details

Reference

Order

Structure

Contrast

1

Errors

0

Contrast Errors

6

Alerts

1

Features

1

Structural Elements

0

ARIA

View details

h2

Student Enrollment

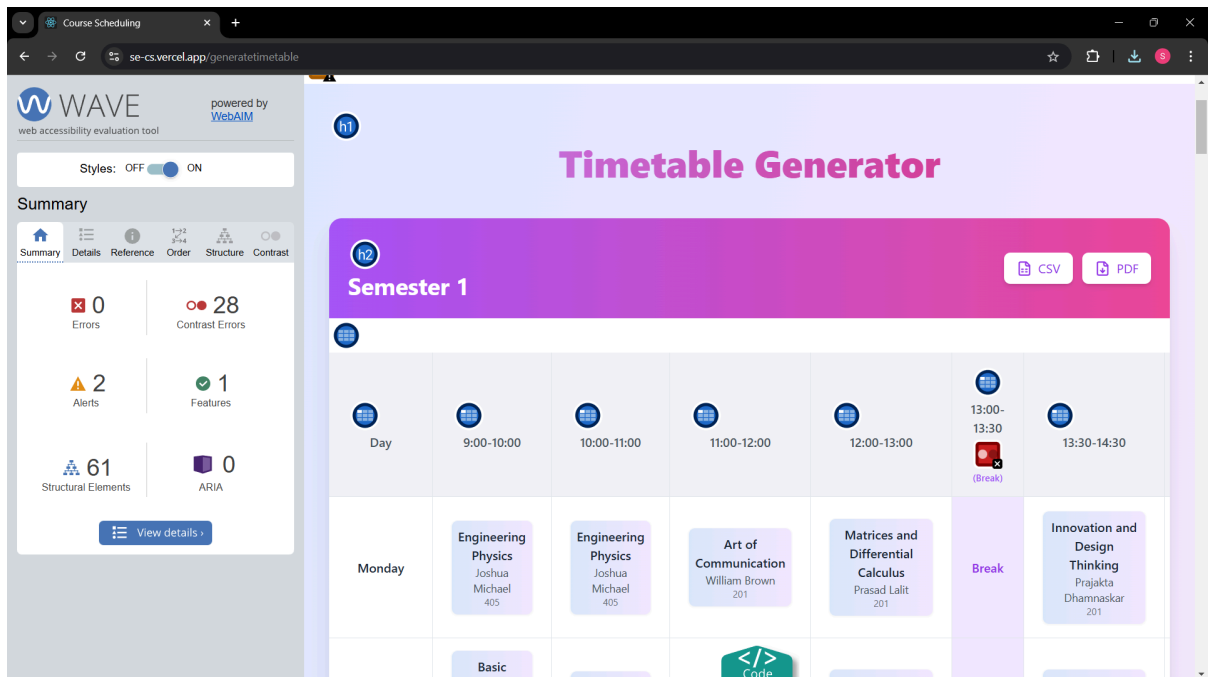
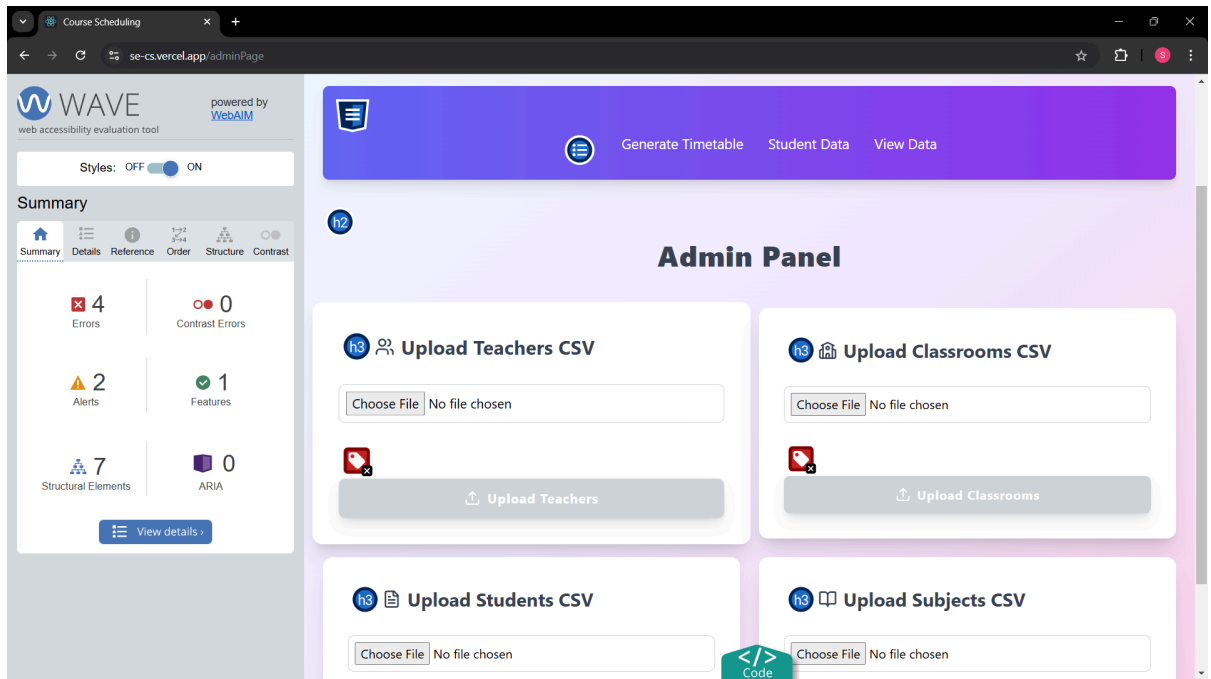
Name

Semester

Enter your name

Select Semester

Enroll



WAVE

web accessibility evaluation tool

powered by

WebAIM

Styles: OFF ON

Summary

Summary

Details

Reference

Order

Structure

Contrast

3

Errors

8

Contrast Errors

3

Alerts

1

Features

9

Structural Elements

0

ARIA

View details

h2

Student Data

Search students or subjects..

Download Excel

h3

Name

Sem

Subjects

Elective 1

Elective 2

Open Elective

LLC

Aarav Sharma

5

Operating System, Computer Network, Machine learning, Honors/Double Minor Course, Cryptography and Computer Security, Health Wellness and Psychology, Public relation and Corporate Communication, Program Elective lab

ai

arvr

Riya Patel

3

Discrete Maths and Statistics, Computer Organization and Architecture, Data Structures, Object Oriented Programming with JAVA, Law for engineers, Financial Planning Taxation and Investment, Human Values and Professional Ethics, Community Engagement Project, Honors/Double Minor Course

cloud

ml

german

Vihaan Verma

6

Honors/Double Minor Course, Theoretical Computer Science, data Warehousing and mining, cloud Computing, Emotional and spiritual intelligence, Artificial intelligence, Program Elective Lab A,

cybersec

blockchain

Code

WAVE

web accessibility evaluation tool

powered by

WebAIM

Styles: OFF ON

Summary

Summary

Details

Reference

Order

Structure

Contrast

0

Errors

0

Contrast Errors

3

Alerts

1

Features

6

Structural Elements

5

ARIA

View details

Congratulations! No errors were detected! Manual testing is still necessary to ensure compliance and optimal accessibility.

The following apply to the entire page:

en

h2

Admin Dashboard

h3

Student Enrollment by Semester

Student Distribution

Students Enrolled

Sem1

Sem2

Sem3

Sem4

Sem5

Sem6

h3

Teacher Distribution by Subject

Teacher Distribution

Number of Teachers

Matrices and Differential Calculus

Integral Calculus and Probability Theory

Introduction to Emerging Technologies

Community Engagement Project

Technology Entrepreneurship

Programming Elective Lab B

english

blockchain

Code



W WAVE

web accessibility evaluation tool

powered by WebAIM

Styles: OFF ON

Summary

Summary

Details

Reference

Order

Structure

Contrast

0

Errors

0

Contrast Errors

2

Alerts

2

Features

3

Structural Elements

0

ARIA

View details

Congratulations! No errors were detected! Manual testing is still necessary to ensure compliance and optimal accessibility.

h1

Teacher Dashboard

Select Teacher:

-- Choose a Teacher --

h2

View Timetable

Check your class schedule and timings for better planning.

View Timetable

h2

Student Details

Access comprehensive information about your students.

View Students

Code

W WAVE

web accessibility evaluation tool

powered by WebAIM

Styles: OFF ON

Summary

Summary

Details

Reference

Order

Structure

Contrast

0

Errors

0

Contrast Errors

2

Alerts

2

Features

10

Structural Elements

5

ARIA

View details

Congratulations! No errors were detected! Manual testing is still necessary to ensure compliance and optimal accessibility.

h1

Teacher Dashboard

Select Teacher:

Prasad Lalit

h2

View Timetable

Check your class schedule and timings for better planning.

View Timetable

h2

Student Details


Access comprehensive information about your students.

View Students

h2

Your Timetable

Code




powered by WebAIM


web accessibility evaluation tool


Styles: OFF ON


Summary


Home Details Reference Order Structure Contrast


 3  
Errors

 8  
Contrast Errors

 3  
Alerts

 1  
Features

 9  
Structural Elements

 0  
ARIA

View details

## Students Under Prasad Lalit

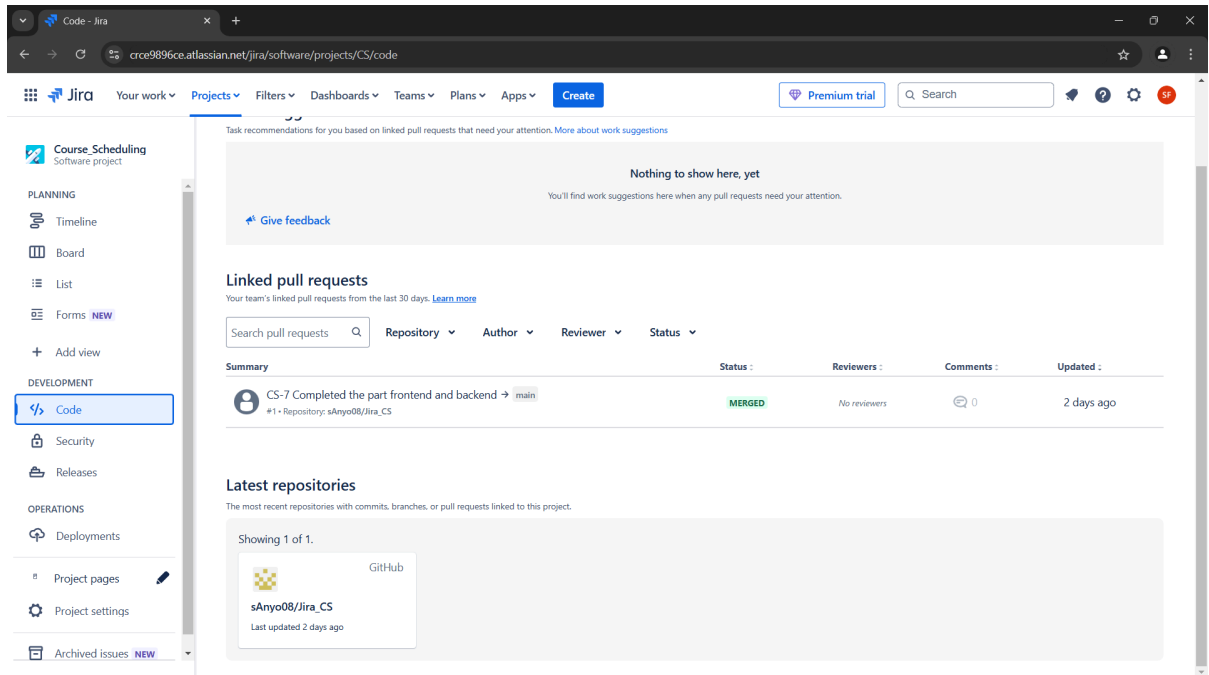
Search students or subjects.

Download Excel

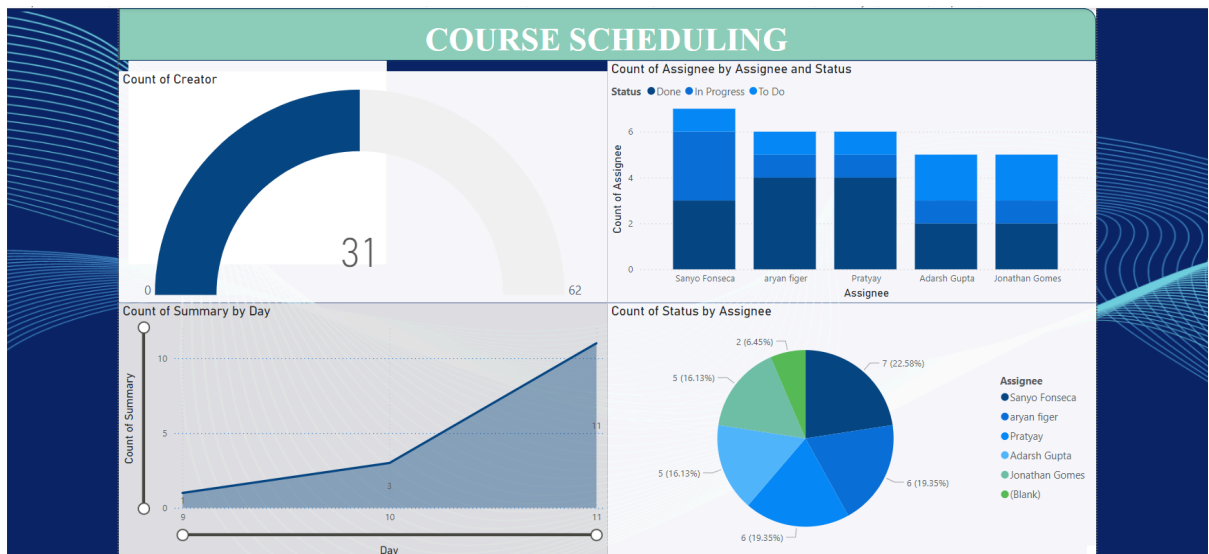
Name	Sem	Subjects	Elective 1	Elective 2	Open Elective	LLC
Aarav Sharma	5	Operating System, Computer Network, Machine learning, Honors/Double Minor Course, Cryptography and Computer Security, Health Wellness and Psychology, Public relation and Corporate Communication, Program Elective lab	ai		arvr	
Riya Patel	3	Discrete Maths and Statistics, Computer Organization and Architecture, Data Structures, Object Oriented Programming with JAVA, Law for engineers, Financial Planning Taxation and Investment, Human Values and Professional Ethics, Community Engagement Project, Honors/Double Minor Course	cloud	ml		german
Vihaan Verma	6	Honors/Double Minor Course, Theoretical Computer Science, data Warehousing and mining, cloud Computing, Emotional and spiritual intelligence, Artificial intelligence, Programming Elective Lab A, Programming Elective Lab B, Deep Learning	cybersec	blockchain		
		Linear Algebra and Business Statistics, Ana				

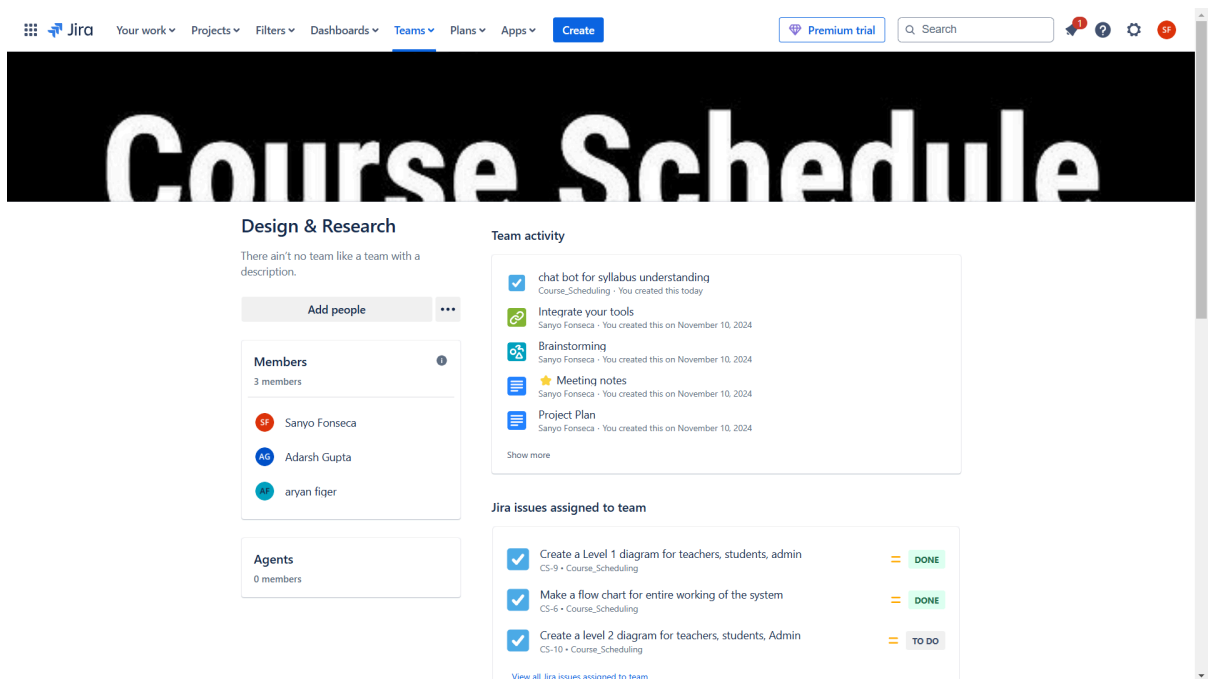
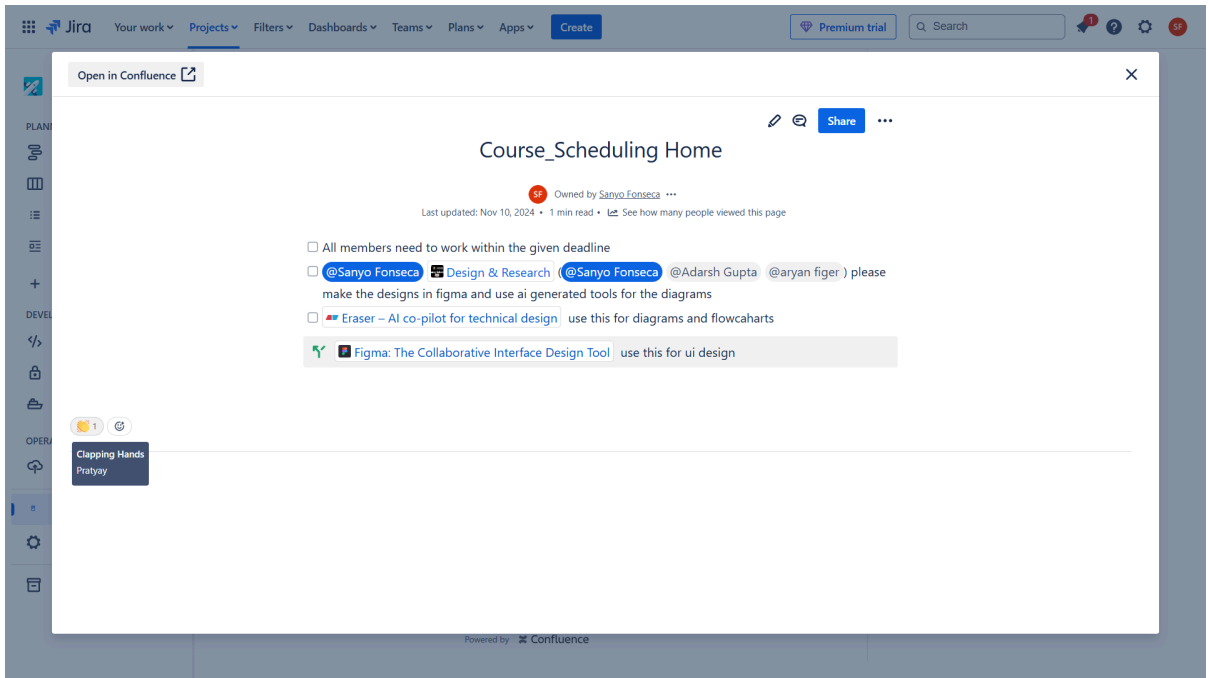
### 3. Acceptance Criteria Management and Quality Assurance in JIRA (5 Marks – CO: CSC502.5)

- Explain how you would define, manage, and document acceptance criteria in JIRA based on the requirements and acceptance criteria provided.



- Describe your approach to using JIRA for quality assurance, focusing on tracking acceptance criteria and organizing test cases to ensure alignment with the system





requirements and project quality.

Rubrics :

COs Criteria		Needs		
Excellent (6/3)		Improvement (4/2)		
(10/5) Good (8/4) Satisfactory		Minimal (2/1)		
CSC502. 5	Management in JIRA	on		
	Clear, well organized structure, issues logged with detail	Adequate design, basic performance testing	Limited setup, lacks organization and detail	Lacks alignment and documentation
CSC502. 4	Well-defined test cases, comprehensive performance plan	Mostly aligned, adequate documentation	Minimal test case design, lacking key details	
CSC502. 5	Project Setup and Defect Management in JIRA	Basic structure, limited customization, basic issue tracking	Minimal alignment, lacks organization	
Test Case Design and Performance Testing	Mostly clear setup, some customization, issues logged	Unclear	Basic design, some test cases missing	Issues managed
		Partially aligned, missing some documentation	Minimal or missing test cases	
Acceptance Criteria				