



American International University-Bangladesh (AIUB)
Department of Computer Science
Faculty of Science & Technology (FST)

Student Skill Bridge

A Software Engineering Project Submitted
By

Semester: Fall_24_25		Section:	Group Number:	
SN	Student Name	Student ID	Contribution (CO3+CO4)	Individual Marks
1	Golam Kibria	22-49507-3	25%	
2	Sadman Sakib Shad	22-49501-3	25%	
3	Showrav Ghosh	23-50666-1	25%	
4	MD. Faysal Khan	22-49312-3	25%	

The project will be evaluated for the following Course Outcomes

CO3: Select appropriate software engineering models, project management roles, and their associated skills for the complex software engineering project and evaluate the sustainability of developed software, taking into consideration the societal and environmental aspects	Total Marks	
	[5 Marks]	
	[5Marks]	
	[5Marks]	
	[5Marks]	
CO4: Develop a project management plan to manage software engineering projects following the principles of engineering management and economic decision process	Total Marks	
	[5Marks]	
Total Marks		

CO5: Perform as an effective team member or leader in diverse team settings and solve multi-disciplinary problems in the computer science and engineering domain		
Taking project responsibility: perform assigned tasks on time independently	[5 Marks]	
Contribution to project group meetings, sharing fruitful ideas	[5Marks]	
Positive attitude towards group work, collaboration, compromise, helping others to understand their project work responsibility	[5Marks]	
Showing respect and value towards other team member's opinion	[5Marks]	

Description of Student's Contribution in the Project work

<p>Student Name: Golam Kibria Student ID: 22-49507-3 Contribution in Percentage (%): 25% <u>Contribution in the Project:</u></p> <ul style="list-style-type: none"> ▪ System Interface Design (UI/UX) ▪ Work Breakdown Structure <p>Kibria</p> <hr/> <p>Signature of the Student</p>
<p>Student Name: Sadman Sakib Shad Student ID: 22-49501-3 Contribution in Percentage (%): 25% <u>Contribution in the Project:</u></p> <ul style="list-style-type: none"> ▪ Risk Management Plan ▪ <p>Shad</p> <hr/> <p>Signature of the Student</p>
<p>Student Name: Showrav Ghosh Student ID: 23-50666-1 Contribution in Percentage (%): 25% <u>Contribution in the Project:</u></p> <ul style="list-style-type: none"> ▪ COCOMO ▪ Gantt Chart <p>Showrav</p> <hr/> <p>Signature of the Student</p>
<p>Student Name: MD. Faysal Khan Student ID: 22-49312-3 Contribution in Percentage (%): 25% <u>Contribution in the Project:</u></p> <ul style="list-style-type: none"> ▪ Test Cases & Test Plan

Faysal

Signature of the Student

1. PROJECT PROPOSAL

Registration Form Fields:

- Full name*
- E-mail*
- Username*
- Phone Number*
- Date of Birth*
- Address*
- Password*
- Confirm Password*

Buttons: Register

Dashboard Statistics:

- 2000 New User
- 500 Deleted User
- 2500 Interview Scheduled
- 3900 Application Approved
- 8000 Verified User

Sections: Top Candidates, Top Employers

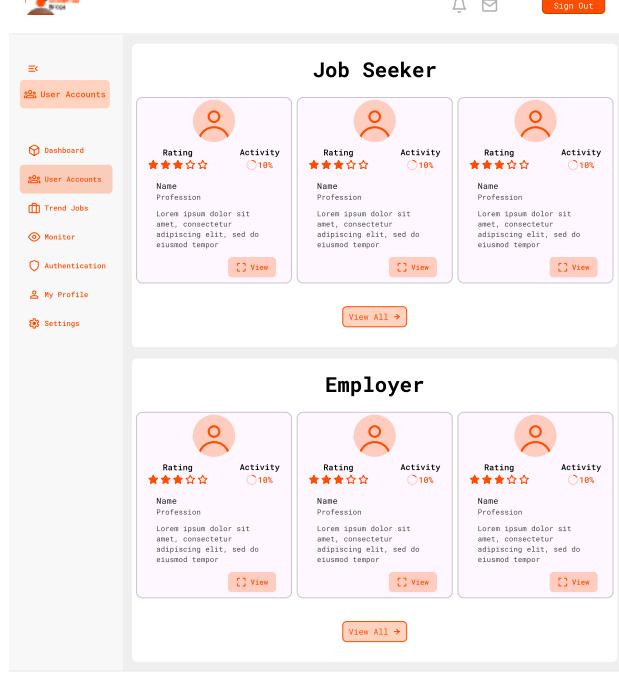
Sign-In Form Fields:

- Email/Username*
- Password

Buttons: Sign In, Forgot password?

Navigation Links:

- Browse
- AI Based
- Student Skill Bridge
- Post Jobs
- Job Interview
- Browse Resumes
- About Us
- Contact Us



Job Seeker

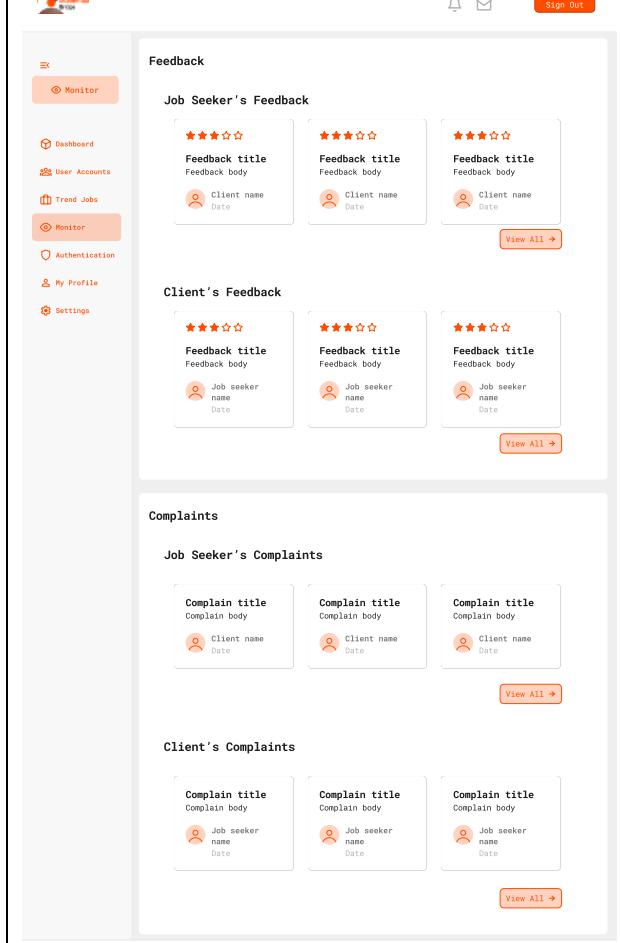
User Accounts

- Dashboard
- User Accounts
- Trend Jobs
- Monitor
- Authentication
- My Profile
- Settings

Employer

User Accounts

- Browse
- AI Based
- Student Skill Bridge
- Post Jobs
- Browse Resumes
- Job Interview
- About Us
- Contact Us



Feedback

Job Seeker's Feedback

Client's Feedback

Complaints

Job Seeker's Complaints

Client's Complaints

Post Approval

Authentication

Dashboard

User Accounts

Trend Jobs

Monitor

My Profile

Settings

Browse

AI Based

Student Skill Bridge

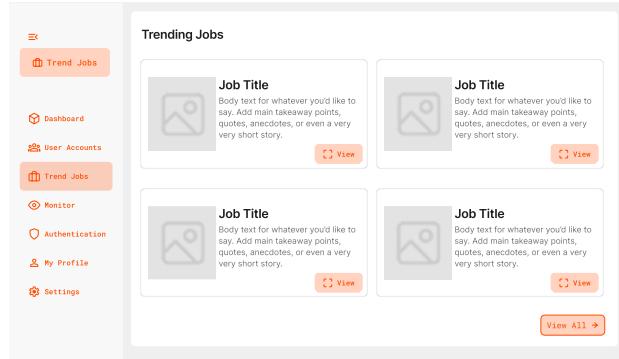
Post Jobs

Browse Resumes

Job Interview

About Us

Contact Us



Trending Jobs

Job Title

Body text for whatever you'd like to say. Add main takeaway points, quotes, anecdotes, or even a very very short story.

Job Title

Body text for whatever you'd like to say. Add main takeaway points, quotes, anecdotes, or even a very very short story.

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Job Title

Body text for whatever you'd like to say. Add main takeaway points, quotes, anecdotes, or even a very very short story.

View All →

Browse

AI Based

Student Skill Bridge

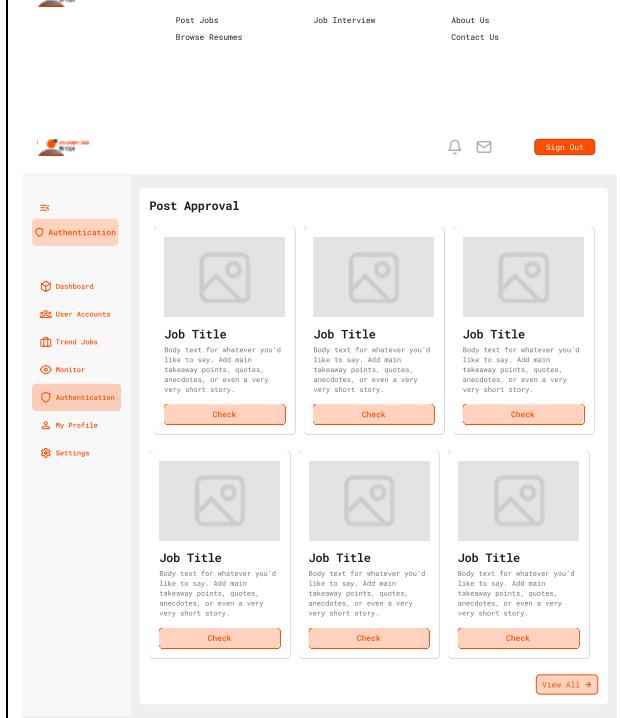
Post Jobs

Browse Resumes

Job Interview

About Us

Contact Us



Post Approval

Job Title

Body text for whatever you'd like to say. Add main takeaway points, quotes, anecdotes, or even a very very short story.

Check

Job Title

Body text for whatever you'd like to say. Add main takeaway points, quotes, anecdotes, or even a very very short story.

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Check

View All →

Browse

AI Based

Student Skill Bridge

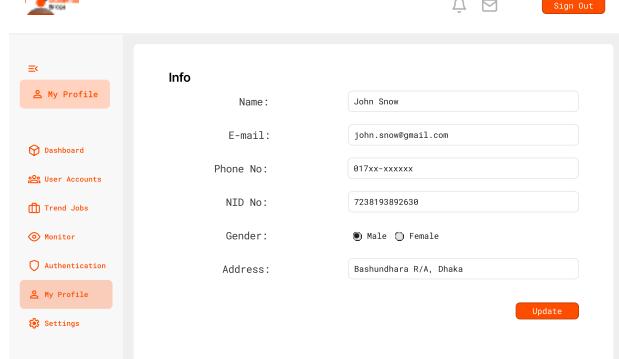
Post Jobs

Browse Resumes

Job Interview

About Us

Contact Us

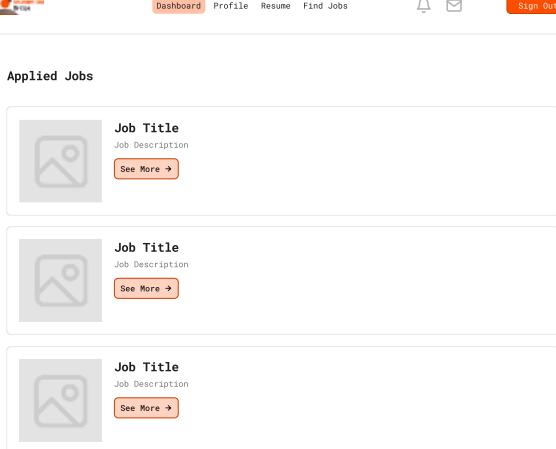


Info

Name: John Snow
E-mail: john.snow@gmail.com
Phone No: 017xx-xxxxxx
NID No: 7238193892630
Gender: ♂ Male ♀ Female
Address: Bashundhara R/A, Dhaka

Browse **AI Based** **Student Skill Bridge**

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Browse Resumes Contact Us

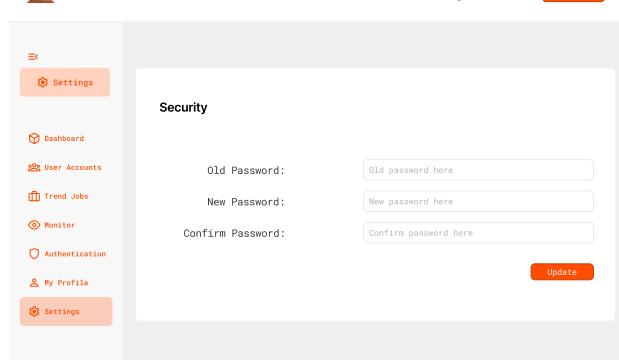


Applied Jobs

- Job Title** Job Description See More →
- Job Title** Job Description See More →
- Job Title** Job Description See More →

Browse **AI Based** **Student Skill Bridge**

Browse Jobs Job Recommendation About Us
Browse Companies Profile Analysis Contact Us

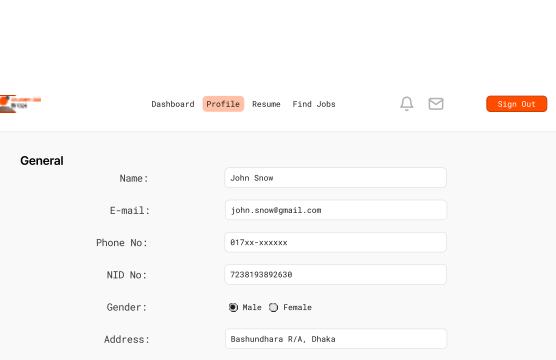


Security

Old Password: Old password here
New Password: New password here
Confirm Password: Confirm password here

Browse **AI Based** **Student Skill Bridge**

Post Jobs Job Interview About Us
Browse Resumes Contact Us

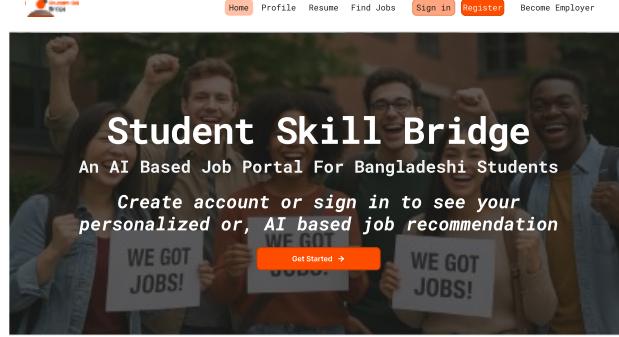


General

Name: John Snow
E-mail: john.snow@gmail.com
Phone No: 017xx-xxxxxx
NID No: 7238193892630
Gender: ♂ Male ♀ Female
Address: Bashundhara R/A, Dhaka

Browse **AI Based** **Student Skill Bridge**

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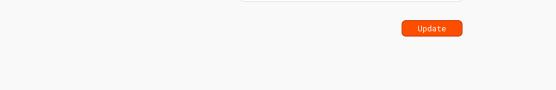


Student Skill Bridge
An AI Based Job Portal For Bangladeshi Students
Create account or sign in to see your personalized or, AI based job recommendation
WE GOT JOBS!

Get Started →

Browse **AI Based** **Student Skill Bridge**

Browse Jobs Job Recommendation About Us
Browse Companies Profile Analysis Contact Us



Security

Old Password: Old password here
New Password: New password here
Confirm Password: Confirm password here

Browse **AI Based** **Student Skill Bridge**

Browse Jobs Job Recommendation About Us
Browse Companies Profile Analysis Contact Us

The image displays a composite of several screenshots from the Student Skill Bridge job portal, illustrating its user interface and features.

- Profile Page:** Shows a user profile for "John Snow". It includes a placeholder profile picture, basic information like location ("Dhaka, Bangladesh") and language ("Speaks English"), and sections for "About", "Project Portfolio", "Video Resume", "Experience", "Education", and "Certifications". Each section has an "Edit Details" button.
- Job Listings:** A grid of six job cards, each featuring a placeholder image, a job title ("Job Name"), a brief description ("Job Description"), and a "View More" button.
- Footer Navigation:** A horizontal navigation bar at the bottom of the portal pages, containing links for "Browse", "AI Based", "Student Skill Bridge", "Post Jobs", "Job Recommendation", "Profile Analysis", "About Us", and "Contact Us".
- Home Page:** Features a banner with four diverse individuals holding up papers labeled "JOB". The text reads "Student Skill Bridge" and "An AI Based Job Portal For Bangladeshi Students". Below the banner is a call-to-action button "Get Started →".
- Job Interview Page:** Similar to the home page, but specifically for job interviews, featuring a banner with four diverse individuals holding up papers labeled "JOB". The text reads "Student Skill Bridge" and "Job Interview".
- Logout Screen:** A simple screen with the "Sign Out" button.
- Posted Jobs:** A section showing three job listings, each with a placeholder image, a job title, a brief description, and a "See More →" button.
- Footer Navigation (Bottom):** A horizontal navigation bar at the very bottom of the page, containing links for "Dashboard", "Profile", "Find Jobs", "Sign In", "Register", and "Become Job Seeker".

The image displays two side-by-side screenshots of a web-based application interface. The left screenshot shows the 'Profile' section, which includes fields for Name (Heisenberg), E-mail (heisenberg@gmail.com), Phone No. (013xx-xxxxxx), NID No. (8238143822630), Gender (Male selected), and Address (Bashundhara R/A, Dhaka). There is an 'Update' button at the bottom. The right screenshot shows the 'Post Jobs' section, which includes fields for Job Title, Company Name, Job Position, Salary, Required Skills (Optional), Experience (Optional), Location, and Job Description. There is a 'Post' button at the bottom. Both screenshots have a header with 'Dashboard', 'Profile', 'Post Jobs', and 'Sign Out' buttons, and a footer with links like 'Browse', 'AI Based', 'Student Skill Bridge', 'Post Jobs', 'Job Interview', 'About Us', and 'Contact Us'.

2. Test Cases & Test Plan

1.1. The system shall allow students to register by providing their full name, email, username, gender, NID no, phone number, address, date of birth, user type (student), and password (must be 8 characters with a combination of letters, numbers, and special symbols).

Project Name: Student Skill Bridge	Test Designed by: Md. Faysal Khan			
Test Case ID: FR_1 Test Priority (Low, Medium, High): Medium	Test Designed date: 01-06-2025 Test Executed by: Md. Faysal Khan			
Module Name: Student Registration Test Title: Verify student registration with required fields and password validation	Test Execution date: 01-06-2025			
Description: Ensure the system allows student users to register using a valid form with all required details and enforces password complexity				
Precondition (If any): ➤ User must not already be registered ➤ Registration form must be accessible				
Test Steps	Test Data	Expected Results	Actual Results	Status (Pass/Fail)
1. Navigate to the registration page		Registration form should be displayed	As expected	Pass

2. Enter full name	Faysal Khan	Name should be accepted	As expected	Pass
3. Enter email	Faysaal70@gmail.com	Email should be validated and accepted	As expected	Pass
4. Enter username	Faysaal70	Username should be unique and accepted	As expected	Pass
5. Select gender	Male	Gender should be selected successfully	As expected	Pass
6. Enter NID number	56733234	NID should be numeric and accepted	As expected	Pass
7. Enter phone number	01836452333	Phone number should be validated and accepted	As expected	Pass
8. Enter address	Dhaka	Address should be accepted and stored	As expected	Pass
9. Enter date of birth	02/11/2001	Date of birth should be valid and stored	As expected	Pass
10. Select user type	Student	User type should be selected as "Student"	As expected	Pass
11. Enter password	12345678	Password should be minimum 8 characters and meet complexity requirements	As expected	Pass
12. Confirm password	12345678	Confirmed password should be matched with the entered password	As expected	Pass
13. Click on Submit		Registration should be successful and confirmation message should be displayed or user redirected	As expected	Pass
Post Condition:				
<ul style="list-style-type: none"> ➤ Student is registered in the database ➤ User credentials are securely stored (e.g., hashed password) ➤ Student can now log in using registered credentials 				

1.2. The system shall allow students to login using their registered email, username, or phone number along with their password.

Project Name: Student Skill Bridge		Test Designed by: Md. Faysal Khan					
Test Case ID: FR_2 Test Priority (Low, Medium, High): Medium		Test Designed date: 01-06-2025 Test Executed by: Md. Faysal Khan					
Module Name: Student Login Test Title: Verify student login with email, username, or phone number		Test Execution date: 01-06-2025					
Description: Ensure students can log in using any of the registered identifiers (email, username, or phone number) with a valid password							
Precondition (If any): <ul style="list-style-type: none"> ➤ Student must already be registered ➤ Credentials must exist in the database 							
Test Steps	Test Data	Expected Results	Actual Results	Status (Pass/Fail)			
1. Navigate to the login page		Login form should be displayed	As expected	Pass			
2. Enter registered username and correct password	Username: faysaal70 Password:12345678	User should be logged in and redirected to dashboard	As expected	Pass			
3. Enter incorrect password	Username: faysaal70 Password:12345687	There should be error message	As expected	Pass			
4. Enter unregistered username	Username: faysal70 Password:12345687	There should be error message	As expected	Pass			
Post Condition: User is validated with database and successfully login to account. The account session details are logged in the database.							

1.3. The system shall allow students to create and update profiles containing academic information, skills, and achievements.

Project Name: Student Skill Bridge		Test Designed by: Md. Faysal Khan	
Test Case ID: FR_3 Test Priority (Low, Medium, High): Medium		Test Designed date: 01-06-2025 Test Executed by: Md. Faysal Khan	
Module Name: Login Session Test Title: verify login with valid username and password		Test Execution date: 01-06-2025	

Description: Test website login page				
Precondition (If any): User must have valid username and password				
Test Steps	Test Data	Expected Results	Actual Results	Status (Pass/Fail)
1. Navigate to the user profile page		Profile page should be displayed	As expected	Pass
2. Click on “Edit Profile” or “Create Profile”		Editable form should appear	As expected	Pass
3. Enter academic information	Degree: B.Sc in CSE Institute: ABC University CGPA: 3.75	Academic info should be accepted and stored	As expected	Pass
4. Enter skills	Skills: Java, Python, HTML	Skills should be accepted and stored	As expected	Pass
5. Enter achievements	Achievements: Hackathon 2023 Winner	Achievements should be accepted and stored	As expected	Pass
6. Click on “Save”		Profile data should be saved successfully, success message should appear	As expected	Pass
7. Re-navigate to profile page		Previously saved data should be visible	As expected	Pass
8. Update academic info	CGPA: 3.85	Updated academic info should replace previous entry	As expected	Pass
9. Add additional skill	Skill: React.js	New skill should be added without affecting existing ones	As expected	Pass
10. Update achievement	Achievement: Added “Internship at XYZ Ltd”	New achievement should be added	As expected	Pass
Post Condition: Profile data is saved and synced with the user database. Student can view and modify profile information at any time.				

1.4. The system shall allow students to upload video resumes and written resumes in supported formats.

Project Name: Student Skill Bridge		Test Designed by: Md Faysal Khan					
Test Case ID: FR_4 Test Priority (Low, Medium, High): Medium		Test Designed date: 01-06-2025 Test Executed by: Md. Faysal Khan					
Module Name: Resume Upload Test Title: Verify upload of video and written resumes		Test Execution date: 01-06-2025					
Description: Ensure students can upload both video and written resumes using supported file formats (e.g., .pdf, .docx, .mp4, .mov)							
Precondition (If any): ➤ Student must be logged in ➤ Resume upload page must be accessible							
Test Steps	Test Data	Expected Results	Actual Results	Status (Pass/Fail)			
1. Navigate to Resume Upload page		Upload page should be displayed	As expected	Pass			
2. Click on “Upload Written Resume”		File browser should open	As expected	Pass			
3. Upload written resume in supported format	File: resume.pdf	File should be uploaded successfully	As expected	Pass			
4. Upload written resume in unsupported format	File: resume.txt	System should show error: "Unsupported file format"	As expected	Pass			
5. Click on “Upload Video Resume”		File browser should open	As expected	Pass			
6. Upload video resume in supported format	File: resume.mp4	File should be uploaded successfully	As expected	Pass			
7. Upload video resume in unsupported format	File: resume.mkv	System should show error: "Unsupported video format"	As expected	Pass			
8. Attempt to upload a file exceeding allowed size	File: 300MB video	System should show error: "File size exceeds limit"	As expected	Pass			
9. Verify uploaded resumes are listed/viewable		Uploaded files should appear on user profile or resume list	As expected	Pass			

10. Replace an existing uploaded file	Upload new resume.pdf	New file should overwrite the old one	As expected	Pass
Post Condition: Valid video and written resumes are stored in the user profile and linked to the user account in the database. User can re-upload or update resumes anytime				

1.5. The system shall allow students to browse and apply for part-time jobs or internships listed on the platform.

Project Name: Student Skill Bridge		Test Designed by: Md. Faysal Khan					
Test Case ID: FR_5 Test Priority (Low, Medium, High): Medium		Test Designed date: 01-06-2025 Test Executed by: Md. Faysal Khan					
Module Name: Job/Internship Application Test Title: Verify student can browse and apply for part-time jobs or internships		Test Execution date: 01-06-2025					
Description: Validate functionality that allows students to browse available opportunities and apply to relevant jobs/internships							
Precondition (If any): User must be logged in as a registered student							
Test Steps	Test Data	Expected Results	Actual Results	Status (Pass/Fail)			
1. Login as a student	Username: faysaal70 Password: 12345678	Student should be logged in and redirected to the dashboard	As expected	Pass			
2. Navigate to “Job Opportunities” or “Internships” section		List of available part-time jobs/internships should be displayed	As expected	Pass			
3. Browse the list of jobs/internships		Job titles, descriptions, and application buttons should be visible	As expected	Pass			
4. Click on a job/internship post	Selected Job ID: PTJ001	Detailed job/internship information should be displayed	As expected	Pass			
5. Click on “Apply” button	Job ID: PTJ001	Application form or	As expected	Pass			

		confirmation should appear		
6. Submit application	Resume: resume.pdf Cover Letter: optional	Success message or notification should confirm application submission	As expected	Pass
7. Verify application appears in "My Applications" section		The job/internship should be listed in the student's applications	As expected	Pass
Post Condition: The student's job/internship application is stored in the database and visible in their profile/application history.				

1.6. The system shall display AI-based job recommendations to students based on their profile data and preferences.

Project Name: Student Skill Bridge	Test Designed by: Md. Faysal Khan						
Test Case ID: FR_6 Test Priority (Low, Medium, High): High	Test Designed date: 01-06-2025 Test Executed by: Md. Faysal Khan						
Module Name: AI-Based Job Recommendations Test Title: Verify AI-based job recommendations for students	Test Execution date: 01-06-2025						
Description: To ensure the system displays personalized job/internship recommendations							
Precondition (If any): ➤ Student must be logged in ➤ Profile must be completed with relevant academic and skill information							
Test Steps	Test Data	Expected Results	Actual Results	Status (Pass/Fail)			
1. Login as a student	Username: faysaal70 Password: 12345678	Student should be logged in and redirected to dashboard	As expected	Pass			
2. Ensure student profile is filled with academic background, skills, and preferences	e.g. Skill: Python Interest: Data Science Location: Dhaka	Profile should be saved and preferences stored	As expected	Pass			
3. Navigate to "Recommended Jobs" section		Recommended job list based on student profile	As expected	Pass			

		should be displayed		
4. Verify relevance of recommended jobs	Profile: Python, Data Science Job Title: Data Analyst Intern	Jobs shown should match student's skills and preferences	As expected	Pass
5. Click on a recommended job	Job ID: AIJ001	Job detail page should open with complete job information	As expected	Pass
6. Apply for the recommended job	Job ID: AIJ001 Resume uploaded	Application should be submitted successfully	As expected	Pass
Post Condition: <ul style="list-style-type: none"> ➤ Recommended job list is updated in real-time based on profile changes. ➤ Application appears in the “My Applications” section. ➤ AI module logs feedback for future recommendation improvements. 				

1.7. The system shall allow students to schedule or attend online/physical interviews with employers.

Project Name: Student Skill Bridge	Test Designed by: Md. Faysal Khan						
Test Case ID: FR_7 Test Priority (Low, Medium, High): High	Test Designed date: 01-06-2025 Test Executed by: Md. Faysal Khan						
Module Name: Interview Scheduling Test Title: Verify student can schedule and attend online/physical interviews	Test Execution date: 01-06-2025						
Description: Validate that students are able to schedule and join interviews (online or physical) as per employer's availability							
Precondition (If any): <ul style="list-style-type: none"> ➤ Student must be logged in ➤ Student must have applied to at least one job/internship ➤ Employer must have sent an interview invitation 							
Test Steps	Test Data	Expected Results	Actual Results	Status (Pass/Fail)			
1. Login as a student	Username: faysaal70 Password: 12345678	Student should be redirected to dashboard	As expected	Pass			
2. Navigate to “Interview Invitations” section		List of interview	As expected	Pass			

		requests should be displayed		
3. View interview details	Interview ID: INT001 Type: Online Date: 2025-06-03 Time: 11:00 AM	Interview details should be shown clearly	As expected	Pass
4. Choose interview slot (if scheduling is allowed)	Slot: 2025-06-03 at 11:00 AM	Interview should be confirmed and added to student's schedule	As expected	Pass
5. Click "Join" for online interview at scheduled time	Platform: Zoom/Integrated video Join link provided	Video call interface should open and allow interview session	As expected	Pass
6. Attend physical interview	Location: Dhaka Office, 4th Floor Time: 3:00 PM	Physical interview details should be displayed with a map/directions	As expected	Pass
7. Check interview status post-attendance	Status: Completed / Pending Feedback	Interview should be marked as attended or pending review	As expected	Pass
<p>Post Condition:</p> <ul style="list-style-type: none"> ➤ Interview participation is logged in the database. ➤ Employer can provide feedback or change interview status. ➤ Student receives notifications/reminders before interviews. 				

1.8. The system shall enable students to view the status of their applications and feedback provided by employers.

Project Name: Student Skill Bridge	Test Designed by: Md. Faysal Khan
Test Case ID: FR_8 Test Priority (Low, Medium, High): High	Test Designed date: 01-06-2025 Test Executed by: Md. Faysal Khan
Module Name: Application Tracking & Feedback Test Title: Verify student can view application status and employer feedback	Test Execution date: 01-06-2025

<p>Description: Ensure that students can track the progress of their applications and view any feedback left by employers</p>				
<p>Precondition (If any):</p> <ul style="list-style-type: none"> ➤ Student must be logged in ➤ Student must have applied for at least one job/internship ➤ Employer must have updated the status or left feedback 				
Test Steps	Test Data	Expected Results	Actual Results	Status (Pass/Fail)
1. Login as a student	Username: faysaal70 Password: 12345678	Student dashboard should be displayed	As expected	Pass
2. Navigate to “My Applications” section		List of applied jobs/internships should be shown	As expected	Pass
3. Select an application to view details	Application ID: APP123	Application details (job title, company, applied date) should be visible	As expected	Pass
4. Check current application status	Status: Under Review / Shortlisted / Rejected / Hired	System should show updated application status	As expected	Pass
5. Check for employer feedback	Feedback: “Strong portfolio, but need more team project experience.”	Feedback section should display message left by employer	As expected	Pass
6. Return to dashboard or browse other applications		Navigation should be smooth and persistent login maintained	As expected	Pass
<p>Post Condition:</p> <ul style="list-style-type: none"> ➤ Students are informed of application progress and employer comments. ➤ Data is stored and visible until the application process concludes. ➤ Students can use feedback to improve future applications. 				

1.9. The system shall provide secure in-app messaging functionality for students to communicate with employers.

Project Name: Student Skill Bridge		Test Designed by: Md. Faysal Khan					
Test Case ID: FR_9 Test Priority (Low, Medium, High): High		Test Designed date: 01-06-2025 Test Executed by: Md. Faysal Khan					
Module Name: In-App Messaging Test Title: Verify secure messaging between student and employer		Test Execution date: 01-06-2025					
Description: Ensure students can securely send and receive messages to/from employers within the platform							
Precondition (If any): <ul style="list-style-type: none"> ➤ Student and employer must both be registered users ➤ Student must have applied to at least one job or have an ongoing interview/application ➤ Both users must be logged in 							
Test Steps	Test Data	Expected Results	Actual Results	Status (Pass/Fail)			
1. Login as a student	Username: faysaal70 Password: 12345678	Student dashboard is displayed	As expected	Pass			
2. Navigate to “Messages” or “Inbox” section		Messaging interface should load	As expected	Pass			
3. Open conversation with employer	Employer ID: EMP1002	Chat history should load securely with timestamps	As expected	Pass			
4. Type and send a message	“Hello, I’m excited about the opportunity!”	Message should be sent and appear instantly in chat	As expected	Pass			
5. Receive response from employer	Message: “Thanks for your interest. Let’s schedule a call.”	Employer message should appear in real-time	As expected	Pass			
6. Attempt to send a message to an unauthorized employer	Employer not linked to student application	Error message or restriction should be shown	As expected	Pass			
7. Refresh or log out and log back in		All previous messages should persist securely	As expected	Pass			

Post Condition:

- Messages are encrypted during transmission
- Only involved users can view the conversation
- No messages are accessible from outside the app or by unauthorized users

1.10. The system shall allow user to recover their password by providing their username/email.

Project Name: Student Skill Bridge		Test Designed by: Md. Faysal Khan					
Test Case ID: FR_10 Test Priority (Low, Medium, High): High		Test Designed date: 01-06-2025 Test Executed by: Md. Faysal Khan					
Module Name: Password Recovery Test Title: Verify password recovery via username or email		Test Execution date: 01-06-2025					
Description: Ensure users can securely recover their account by initiating a password reset using their registered email or username							
Precondition (If any): ➤ User must be registered on the platform ➤ User must have access to the registered email address							
Test Steps	Test Data	Expected Results	Actual Results	Status (Pass/Fail)			
1. Navigate to the login page		Login form should be displayed	As expected	Pass			
2. Click “Forgot Password” link		Password recovery page should appear	As expected	Pass			
3. Enter registered email	Email: Faysaal70@gmail.com	System should validate email and send recovery instructions	As expected	Pass			
4. Enter registered username (alternative test)	Username: faysaal70	System should validate username and send recovery instructions to	As expected	Pass			

		associated email		
5. Check email inbox for recovery link	Email received from: support@studentskillbridge.com	Email with password reset link/code should be received	As expected	Pass
6. Click reset link and enter new password	New Password: P@ssw0rd9	Password should meet security rules and be updated	As expected	Pass
7. Login with new password	Username: faysaal70 Password: P@ssw0rd9	Login should succeed with the new password	As expected	Pass
8. Attempt with invalid email/username	Email: fakeuser@mail.com	System should show error: "User not found"	As expected	Pass
Post Condition: User is validated with database and successfully login to account. The account session details are logged in the database.				

2.1. The system shall allow employers to register by providing their company name, email, username, gender, nid no, phone number, address, date of birth, user type (employer/client), and password (must be 8 characters with a combination of letters, numbers, and special symbols).

Project Name: Student Skill Bridge		Test Designed by: Md. Faysal Khan		
Test Case ID: FR_21 Test Priority (Low, Medium, High): High		Test Designed date: 02-06-2025 Test Executed by: Md. Faysal Khan		
Module Name: Employer Registration Test Title: Verify employer registration with required information		Test Execution date: 02-06-2025		
Description: Ensure the system allows employer registration using all required fields with validation and secure password rules				
Precondition (If any): Employer is not yet registered in the system				
Test Steps	Test Data	Expected Results	Actual Results	Status (Pass/Fail)

1. Navigate to registration page		Employer registration form should be displayed	As expected	Pass
2. Enter company name	CodeTech Ltd.	Company name should be accepted	As expected	Pass
3. Enter email	codetech.hr@gmail.com	Valid and unique email should be accepted	As expected	Pass
4. Enter username	codetech2025	Unique username should be accepted	As expected	Pass
5. Select gender	Male	Gender should be recorded	As expected	Pass
6. Enter NID number	78945612	Numeric NID should be accepted	As expected	Pass
7. Enter phone number	01912345678	Valid phone number format should be accepted	As expected	Pass
8. Enter address	Gulshan, Dhaka	Address should be saved	As expected	Pass
9. Enter date of birth	01/01/1985	Date should be valid	As expected	Pass
10. Select user type	Employer	“Employer” user type should be selected successfully	As expected	Pass
11. Enter password	Codetech@2025	Password should meet complexity rules (min 8 characters, mix of letters, numbers, symbols)	As expected	Pass
12. Confirm password	Codetech@2025	Passwords should match	As expected	Pass
13. Submit the registration form		Employer should be registered successfully and receive a confirmation message or redirection	As expected	Pass

Post Condition:

- Employer account is created and stored in the database
- Employer can now log in and access employer-specific dashboard
- System ensures secure handling of password (e.g., hashing)

2.2. The system shall allow employers to login using their registered email, username, or phone number along with their password.

Project Name: Student Skill Bridge		Test Designed by: Md. Faysal Khan					
Test Case ID: FR_22 Test Priority (Low, Medium, High): High		Test Designed date:02-06-2025 Test Executed by: Md. Faysal Khan					
Module Name: Login Session Test Title: Verify employer login using email, username, or phone number		Test Execution date:02-06-2025					
Description: Validate that registered employers can log in using their email, username, or phone number with the correct password							
Precondition (If any): <ul style="list-style-type: none"> ➤ Employer must be registered ➤ Correct login credentials must exist in the database 							
Test Steps	Test Data	Expected Results	Actual Results	Status (Pass/Fail)			
1. Navigate to login page		Login form should be displayed	As expected	Pass			
2. Login with email and password	Email: codetech.hr@gmail.com Password: Codetech@2025	Employer should be logged in and redirected to dashboard	As expected	Pass			
3. Login with username and password	Username: codetech2025 Password: Codetech@2025	Employer should be logged in successfully	As expected	Pass			
4. Login with phone number and password	Phone: 01912345678 Password: Codetech@2025	Employer should be logged in successfully	As expected	Pass			
5. Attempt login with incorrect password	Email: codetech.hr@gmail.com Password: WrongPass123	System should display an error message:	As expected	Pass			

		"Invalid credentials"		
6. Attempt login with unregistered email	Email: fake@unknown.com Password: Any	System should show error: "User not found" or "Invalid credentials"	As expected	Pass
7. Attempt login with blank fields		System should prompt user to enter required login fields	As expected	Pass
			As expected	Pass
Post Condition:				<ul style="list-style-type: none"> ➤ On successful login, employer session is created and user is redirected to the employer dashboard ➤ On failed login, access is denied with appropriate error feedback

2.3. The system shall allow employers to post job/internship circulars with details such as title, description, requirements, and deadlines.

Project Name: Student Skill Bridge	Test Designed by: Md. Faysal Khan						
Test Case ID: FR_23 Test Priority (Low, Medium, High): High	Test Designed date:02-06-2025 Test Executed by: Md. Faysal Khan						
Module Name: Job Posting Test Title: Verify job/internship circular posting by employer	Test Execution date:02-06-2025						
Description: Ensure the employer can post a job/internship circular with all required information (title, description, requirements, deadline)							
Precondition (If any):							
<ul style="list-style-type: none"> ➤ Employer must be logged into the system ➤ Employer must have access to job posting functionality 							
Test Steps	Test Data	Expected Results	Actual Results	Status (Pass/Fail)			
1. Login as employer	Username: codetech2025 Password: Codetech@2025	Employer dashboard should be displayed	As expected	Pass			
2. Navigate to “Post Job/Internship” section		Job posting form should be displayed	As expected	Pass			

3. Enter job/internship title	Software Intern	Title field should accept and store the text	As expected	Pass
4. Enter job description	Knowledge of Python, Git, problem solving skills	Requirements should be accepted and listed clearly	As expected	Pass
6. Set application deadline	30/06/2025	Deadline should be valid future date and stored	As expected	Pass
7. Submit job post		System should validate input and post the job successfully	As expected	Pass
8. View posted job		Job should appear under employer's "My Posts" section and be visible to students	As expected	Pass
<p>Post Condition:</p> <ul style="list-style-type: none"> ➤ Job/internship circular is saved in the database ➤ It is published on the platform and visible to students ➤ Employer can edit or delete the post later if needed 				

2.4. The system shall enable employers to review student applications, including resumes and profiles.

Project Name: Student Skill Bridge	Test Designed by: Md. Faysal Khan
Test Case ID: FR_24 Test Priority (Low, Medium, High): High	Test Designed date:02-06-2025 Test Executed by: Md. Faysal Khan
Module Name: Application Review Test Title: Verify employer can review student applications	Test Execution date:02-06-2025
Description: Ensure the system allows employers to access and review student-submitted applications, resumes, and profile details	
<p>Precondition (If any):</p> <ul style="list-style-type: none"> ➤ Employer must be logged in 	

<ul style="list-style-type: none"> ➤ Students must have applied to at least one of the employer's posted jobs 				
Test Steps	Test Data	Expected Results	Actual Results	Status (Pass/Fail)
1. Login as employer	Username: codetech2025 Password: Codetech@2025	Employer dashboard should be displayed	As expected	Pass
2. Navigate to "Applications" or "Received Applications" section		List of student applications for posted jobs should be displayed	As expected	Pass
3. Select a job posting to view applications	Job ID: JOB321	All applicants for the selected job should be listed	As expected	Pass
4. Click on a student's name to view profile	Student: Faysal Khan	Full profile with educational info, skills, and experience should load	As expected	Pass
5. Open attached resume	Resume file: Faysal_CV.pdf	Resume should open or download for review	As expected	Pass
6. View application date and message (if any)	Application Date: 01/06/2025	Application details should be clearly shown	As expected	Pass
7. Mark or rate application (optional)	Status: Reviewed / Shortlisted	Employer can update status or leave internal notes	As expected	Pass
Post Condition: <ul style="list-style-type: none"> ➤ Employer has reviewed student applications and can filter or act on them ➤ System logs employer views and actions for tracking 				

2.5. The system shall allow employers to schedule interviews (live video or physical) with applicants.

Project Name: Student Skill Bridge	Test Designed by: Md. Faysal Khan
Test Case ID: FR_25 Test Priority (Low, Medium, High):High	Test Designed date:02-06-2025 Test Executed by: Md. Faysal Khan
Module Name: Interview Scheduling Test Title: Verify employer can schedule interviews with applicants	Test Execution date:02-06-2025
Description: Ensure the system allows employers to schedule online or physical interviews with student applicants	

Precondition (If any): <ul style="list-style-type: none"> ➤ Employer and student must be registered ➤ Student must have applied to the employer's job/internship 				
Test Steps	Test Data	Expected Results	Actual Results	Status (Pass/Fail)
1. Login as employer	Username: codetech2025 Password: Codetech@2025	Employer dashboard should be displayed	As expected	Pass
2. Navigate to “Applications” section		List of received applications should be shown	As expected	Pass
3. Select a student application	Applicant: Faysal Khan	Application details should be displayed	As expected	Pass
4. Click “Schedule Interview”		Interview scheduling form should appear	As expected	Pass
5. Select interview type	Type: Live Video / Physical	Options should be selectable and properly recorded	As expected	Pass
6. Set date, time, and (if applicable) location or video link	Date: 05/06/2025 Time: 11:00 AM Location: Banani Office Link: Zoom/Google Meet	Interview details should be validated and saved	As expected	Pass
7. Submit interview invite		Student should receive notification and interview should be logged	As expected	Pass
8. View scheduled interviews in dashboard		Employer can see upcoming scheduled interviews with status	As expected	Pass
Post Condition: <ul style="list-style-type: none"> ➤ Interview is scheduled and stored in database ➤ Student is notified via the system (and possibly email) 				

- | |
|--|
| <ul style="list-style-type: none"> ➤ Employer can reschedule or cancel if necessary |
|--|

2.6. The system shall allow employers to send feedback and communicate with applicants via secure in-app messaging.

Project Name: Student Skill Bridge		Test Designed by: Md. Faysal Khan		
Test Case ID: FR_26 Test Priority (Low, Medium, High): High		Test Designed date:02-06-2025 Test Executed by: Md. Faysal Khan		
Module Name: In-App Messaging & Feedback Test Title: Verify employer can send feedback and communicate with applicants securely		Test Execution date:02-06-2025		
Description: Ensure that employers can send messages and feedback to student applicants through a secure messaging system				
Precondition (If any): <ul style="list-style-type: none"> ➤ Employer and student must both be registered ➤ Student must have applied to a job posted by the employer 				
Test Steps	Test Data	Expected Results	Actual Results	Status (Pass/Fail)
1. Login as employee	Username: codetech2025 Password: Codetech@2025	Employer dashboard should load	As expected	Pass
2. Navigate to “Applications” section		List of student applications should be displayed	As expected	Pass
3. Select a student from the list	Applicant: Faysal Khan	Application details and contact options should appear	As expected	Pass
4. Click on “Message” or “Send Feedback”		Secure messaging window should open	As expected	Pass
5. Type and send message/feedback	Message: "Your resume looks good. Let's discuss further."	Message should be sent and logged in system	As expected	Pass
6. Student responds to message		Employer receives message in real-time within platform	As expected	Pass

7. View message history		Full conversation should be visible and secure	As expected	Pass
8. Attempt to message unrelated student	Student not applied to employer job	System should restrict access and show error	As expected	Pass
Post Condition: <ul style="list-style-type: none"> ➤ Messages are encrypted and securely stored ➤ Only employer and relevant applicant can access the conversation ➤ Feedback and message logs are maintained for audit and reference 				

2.7. The system shall allow user to recover their password by providing their username/email

Project Name: Student Skill Bridge	Test Designed by: Md. Faysal Khan						
Test Case ID: FR_27 Test Priority (Low, Medium, High): High	Test Designed date:02-06-2025 Test Executed by: Md. Faysal Khan						
Module Name: Password Recovery Test Title: Verify employer password recovery via username/email	Test Execution date:02-06-2025						
Description: Ensure employers can securely recover their password using registered username or email							
Precondition (If any): <ul style="list-style-type: none"> ➤ Employer account must exist ➤ Email must be accessible by the employer 							
Test Steps	Test Data	Expected Results	Actual Results	Status (Pass/Fail)			
1. Navigate to login page		Login form should be displayed	As expected	Pass			
2. Click on “Forgot Password”		Password recovery page should appear	As expected	Pass			
3. Enter registered email	Email: codetech.hr@gmail.com	System should validate and send reset link	As expected	Pass			
4. Alternatively, enter registered username	Username: codetech2025	Reset link should be sent to	As expected	Pass			

		associated email		
5. Check email for recovery link	Email received: subject "Reset Your Password"	Link should direct to password reset page	As expected	Pass
6. Enter and confirm new password	New Password: Codetech@2026	Password should meet complexity rules and be updated	As expected	Pass
7. Login with new password	Username: codetech2025 Password: Codetech@2026	Login should be successful with new credentials	As expected	Pass
8. Try reset with invalid username/email	Email: wrong@mail.com	Error: "User not found" or similar message	As expected	Pass
Post Condition: <ul style="list-style-type: none"> ➤ Password is securely updated ➤ Employer can log in using the new password ➤ Old reset links expire automatically for security 				

3.1. The system shall allow administrators to manage user accounts (students/employers), including activation, suspension, or deletion.

Project Name: Student Skill Bridge	Test Designed by: Md. Faysal Khan						
Test Case ID: FR_31 Test Priority (Low, Medium, High): High	Test Designed date:03-06-2025 Test Executed by: Md. Faysal Khan						
Module Name: User Account Management (Admin) Test Title: Verify administrator can manage user accounts	Test Execution date:03-06-2025						
Description: Ensure administrators can view, activate, suspend, or delete student and employer accounts							
Precondition (If any): <ul style="list-style-type: none"> ➤ Administrator must be logged in ➤ User accounts must exist in the system 							
Test Steps	Test Data	Expected Results	Actual Results	Status (Pass/Fail)			
1. Login as administrator	Username: admin Password: Admin@123	Admin dashboard should load	As expected	Pass			

2. Navigate to “User Management” section		List of all registered users should be displayed	As expected	Pass
3. Search for a user account	Username: faysaal70 (student)	Matching user profile should be shown	As expected	Pass
4. Select action: Suspend user	Action: Suspend	User account should be marked as suspended and access disabled	As expected	Pass
5. Select action: Activate user	Action: Activate	Suspended account should be re-enabled	As expected	Pass
6. Select action: Delete user	Action: Delete	Account should be permanently removed or archived (based on system rules)	As expected	Pass
7. Attempt action on already deleted user	User previously deleted	System should show error or warning message	As expected	Pass
8. Verify logs or audit trail		All actions should be logged with timestamp and admin info	As expected	Pass
Post Condition:				
<ul style="list-style-type: none"> ➤ User account states are updated in the database ➤ Suspended users cannot log in ➤ Deleted users are permanently removed or marked inactive ➤ Admin actions are logged for audit purposes 				

3.2. The system shall enable administrators to monitor and verify job/internship postings for compliance with platform policies.

Project Name: Student Skill Bridge	Test Designed by: Md. Faysal Khan
Test Case ID: FR_32 Test Priority (Low, Medium, High): High	Test Designed date:03-06-2025

		Test Executed by: Md. Faysal Khan		
Module Name: Job/Internship Compliance Monitoring Test Title: Verify admin can monitor and verify job/internship posts		Test Execution date:03-06-2025		
Description: Ensure that administrators can view, verify, and take action on job/internship postings for policy compliance				
Precondition (If any): <ul style="list-style-type: none"> ➤ Admin must be logged in ➤ Employers must have posted job/internship circulars 				
Test Steps	Test Data	Expected Results	Actual Results	Status (Pass/Fail)
1. Login as administrator	Username: admin Password: Admin@123	Admin dashboard should be displayed	As expected	Pass
2. Navigate to “Job/Internship Posts” section		List of all employer-posted jobs/internships should be shown	As expected	Pass
3. Select a job post for review	Job ID: JOB654	Job post details should be displayed	As expected	Pass
4. Check for compliance flags (e.g. missing info, inappropriate content)	Description contains promotional links	System should highlight content that may violate policy	As expected	Pass
5. Approve compliant post	Status: Approve	Job is marked as active and visible to students	As expected	Pass
6. Reject or flag non-compliant post	Status: Rejected Reason: "Contains promotional content"	Post should be hidden or marked as non-compliant	As expected	Pass
7. View audit logs of review actions		Action taken by admin should be recorded with timestamp	As expected	Pass
Post Condition: <ul style="list-style-type: none"> ➤ Job posts are filtered and moderated for quality and policy compliance ➤ Admin decisions are logged 				

- | |
|---|
| <ul style="list-style-type: none"> ➤ Students only see verified/compliant listings |
|---|

3.3. The system shall provide administrators with analytics and reports on system usage, user activity, and job application trends.

Project Name: Student Skill Bridge		Test Designed by: Md. Faysal Khan					
Test Case ID: FR_33 Test Priority (Low, Medium, High): Medium		Test Designed date:03-06-2025 Test Executed by: Md. Faysal Khan					
Module Name: Admin Analytics & Reporting Test Title: Verify administrator access to system analytics and reports		Test Execution date:03-06-2025					
Description: Ensure administrators can access reports and dashboards showing usage metrics, user activity, and job application trends							
Precondition (If any): ➤ Administrator must be logged in ➤ Platform must have user activity and job application data available							
Test Steps	Test Data	Expected Results	Actual Results	Status (Pass/Fail)			
1. Login as administrator	Username: admin Password: Admin@123	Admin dashboard should be accessible	As expected	Pass			
2. Navigate to “Analytics” or “Reports” section		Analytics dashboard should load	As expected	Pass			
3. Select “System Usage” report	Filter: Last 30 days	Report should show number of logins, registrations, and sessions	As expected	Pass			
4. Select “User Activity” report	Filter: User type = Student	Data on student logins, applications, and messages should be displayed	As expected	Pass			
5. Select “Job Application Trends” report	Filter: Internships, Region = Dhaka	System should display number of applications over time, per job, and per location	As expected	Pass			

6. Export report as PDF or CSV	Format: CSV	File should be generated and downloaded	As expected	Pass
7. View chart visualizations	Report: Application Trends	Interactive charts/graphs should be correctly displayed	As expected	Pass
Post Condition:				
<ul style="list-style-type: none"> ➤ Admin has access to accurate, real-time system metrics ➤ Reports can be exported for record-keeping or presentation ➤ Visual insights support platform decision-making 				

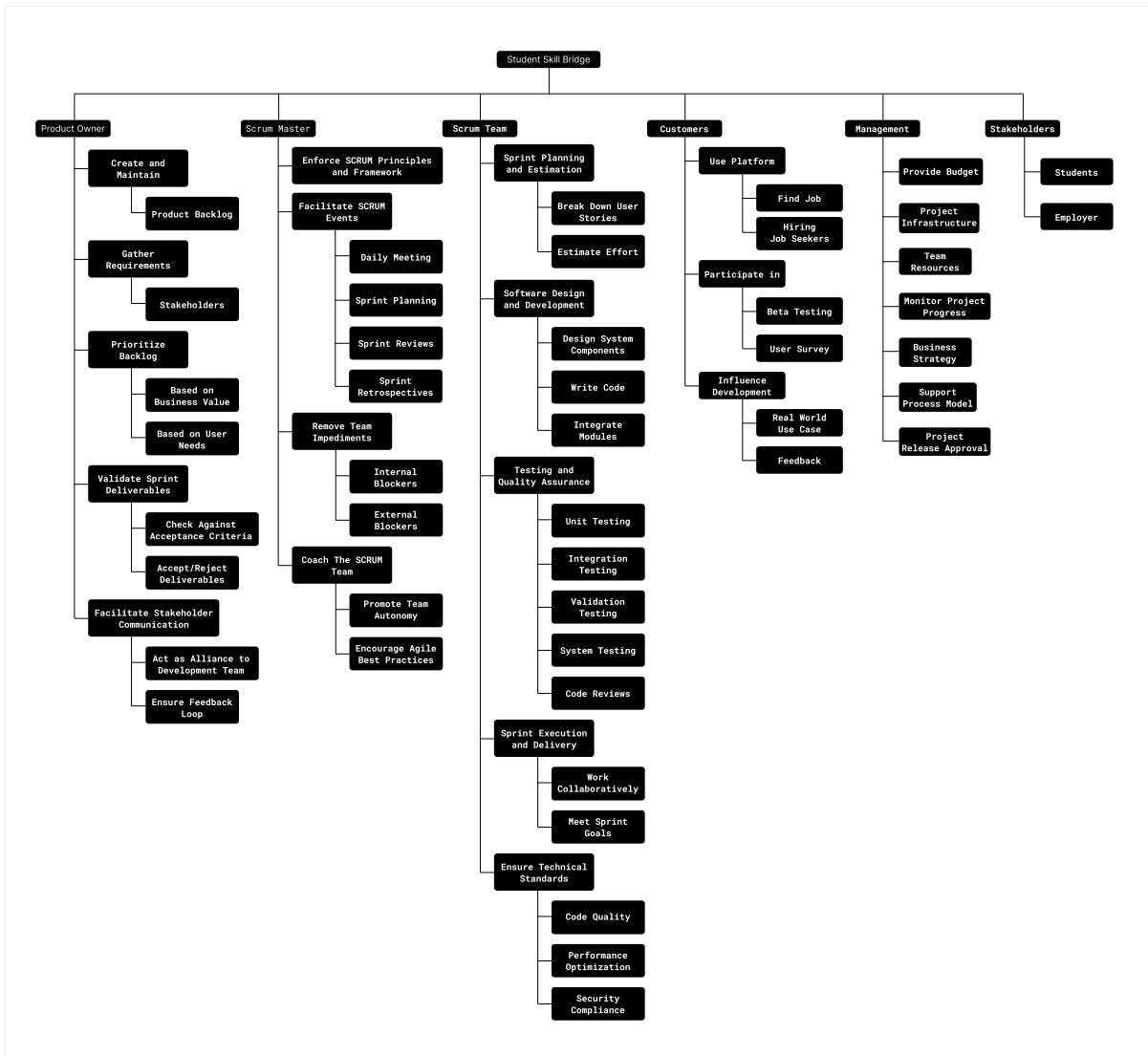
3.4. The system shall allow administrators to address user complaints or issues through a dedicated support interface.

Project Name: Student Skill Bridge		Test Designed by: Md. Faysal Khan					
Test Case ID: FR_34 Test Priority (Low, Medium, High): High		Test Designed date:03-06-2025 Test Executed by: Md. Faysal Khan					
Module Name: Admin Support & Complaint Handling Test Title: Verify administrator can manage user complaints via support interface		Test Execution date:03-06-2025					
Description: Ensure administrators can view, respond to, and resolve user-submitted complaints or issues via the platform's support system							
Precondition (If any): <ul style="list-style-type: none"> ➤ Admin is logged in ➤ One or more complaints have been submitted by users (students or employers) 							
Test Steps	Test Data	Expected Results	Actual Results	Status (Pass/Fail)			
1. Login as administrator	Username: admin Password: Admin@123	Admin dashboard should be displayed	As expected	Pass			
2. Navigate to “Support” or “Complaints” section		List of submitted complaints/issues should be displayed	As expected	Pass			
3. Click on a complaint to view details	Complaint ID: CMP102 User: Faysal Khan	Full complaint message and user contact info should be shown	As expected	Pass			
4. Assign complaint to admin/staff	Assigned to: support agent01	Complaint status updated to “In	As expected	Pass			

		Progress" and assigned user recorded		
5. Respond to complaint via messaging or notes	Message: "We are reviewing your issue. You'll get an update soon."	Message is logged and visible to the user via their support inbox	As expected	Pass
6. Change complaint status	Status: Resolved Close Date: 06/06/2025	Complaint should be marked as resolved and moved to history/archive	As expected	Pass
7. View complaint resolution history		Admin should see timeline/log of all actions taken on the complaint	As expected	Pass
Post Condition: <ul style="list-style-type: none"> ➤ The selected complaint is marked as resolved and no longer appears in the active complaints list. ➤ All actions taken by the administrator (viewing, assigning, responding, updating status) are logged in the system's complaint timeline. ➤ The user who submitted the complaint receives a notification or update with the resolution status and admin response in their support inbox. 				

3. Project Schedule and Effort Estimation

3.1 Work Breakdown Structure (WBS)



3.2 COCOMO

Software Project Type=Organic

SLOC=14000

P=1.05

T=0.38

Coefficient<effort factor>=2.4

$$\begin{aligned}
 \text{Effort} &= \text{PM} = \text{Coefficient}_{\text{effort factor}} * (\text{SLOC}/1000)^{\text{P}} \\
 &= 2.4 * (14000/1000)^{1.05} \\
 &= 38.34
 \end{aligned}$$

$$\text{Development time} = \text{DM} = 2.50 * (\text{PM})^{\text{T}}$$

$$=2.50*(38.34)^{0.38}$$

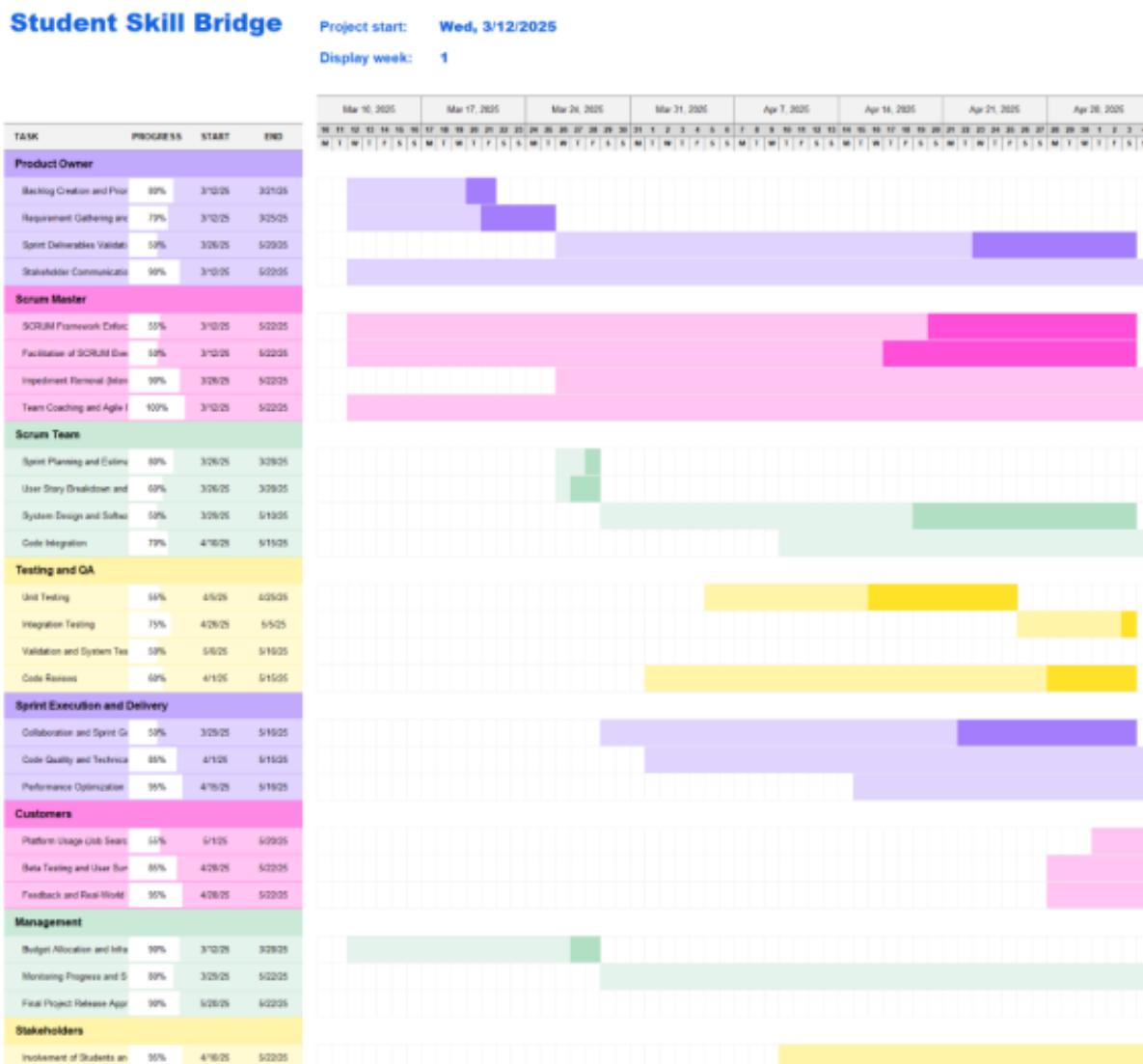
$$=9.48 \approx 10$$

Required number of people = ST = PM/DM

$$=38.34/9.48$$

$$=4.04 \approx 4$$

3.3 Gantt Chart



4. Risk Management Plan

ID	Description	Impact	Response	Level	Owner	Notes
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R-001	Delay in MERN stack development due to technical complexity	Timeline overrun; failure to meet 9-week delivery goal	Set weekly sprint reviews and have backup devs familiar with MERN	High	Scrum Team	Backend integration and auth complexity expected
R-002	TensorFlow.js model gives poor job recommendations	Reduces system trust among users	Use historical job-skill data for training and test thoroughly	High	Product Owner	Model accuracy must be validated with real-like data
R-003	Student video uploads exceed storage or bandwidth limits	System slows down or crashes under load	Use cloud storage (e.g., AWS S3), limit file size	Medium	Management	Important during job application peaks
R-004	Concurrent user traffic above 500 crashes the system	Major outage, reputational risk	Load testing + use horizontal scaling	High	Scrum Master	Performance testing needed
R-005	Client posts spam or offensive job content	Legal and reputational issues	Admin moderation queue and job approval	Medium	Scrum Team	Use NLP for keyword flagging
R-006	Frequent password recovery requests	Increased support load	Implement secure and easy password reset system	Low	Scrum Team	Function already specified

R-007	Data breach or unauthorized access	Legal liability and user distrust	Implement AES encryption, secure authentication	High	Management	Regular security audits needed
R-008	Stakeholders request late-stage features	Scope creep and delivery delay	Lock scope early, postpone requests to Phase 2	Medium	Product Owner	Feature freeze after week 2
R-009	Misuse of messaging system by users	Harassment, platform abuse	Add abuse report, flagging system, and moderation options	Medium	Customer	Involves both students and employers
R-010	Poor mobile responsiveness on older devices	Student access issues, poor UX	Use responsive frameworks (e.g., Bootstrap, Tailwind)	Medium	Scrum Team	Mobile-first design required
R-011	Ambiguous job requirements from employers	Student confusion, mismatched applications	Provide job-posting templates with required fields	Low	Customer	Client onboarding can include posting guidelines
R-012	Employer drops out after posting jobs	Disruption in student applications	Use reminder emails and soft contract terms	Medium	Stakeholder	Incentivize employer retention
R-013	Students create fake profiles or upload false data	Platform credibility issue	Implement profile verification	Medium	Product Owner	Require verification before

			and AI flagging			applying for jobs
R-014	Interview no-shows by students or employers	Scheduling failure and wasted effort	Add calendar sync and automatic reminders	Medium	Scrum Master	Attendance tracking also useful
R-015	Time zone mismatch during live interviews	Missed interviews and miscommunication	Show time zone conversion during scheduling	Low	Scrum Team	Especially for international clients
R-016	System not meeting accessibility standards	Excludes users with disabilities	Follow WCAG guidelines, use screen reader-friendly design	Medium	Management	Part of non-functional requirement
R-017	Low engagement after first month post-launch	User dropout, poor retention	Set up notification system and engagement emails	Medium	Management	Could include push/email reminders
R-018	Admin panel too complex for support staff	Slower user issue resolution	Design simple UI/UX for admin dashboard	Low	Scrum Team	Include FAQs and tooltips in UI
R-019	Inaccurate analytics/reporting on usage	Wrong decisions by management	Validate data models and analytics engine	Medium	Product Owner	Cross-check metrics with backend logs
R-020	Server downtime due to unplanned maintenance	Loss of access for users	Deploy in cloud with automated failover	High	Management	Must ensure 24/7 availability

R-02-1	Legal compliance issues (e.g., GDPR/data retention)	Fines, data handling restrictions	Ensure compliance in data storage and deletion policies	High	Management	Especially due to personal data from students
R-02-2	Team burnout due to tight 9-week deadline	Reduced quality, missed goals	Break work into sprints with buffers, monitor workload	High	Scrum Master	Consider rotating responsibilities
R-02-3	Stakeholders not attending review meetings	Feedback delay, missed improvements	Set recurring fixed-time demo meetings	Medium	Stakeholder	Involve both students and employers early on
R-02-4	Git merge conflicts during collaborative development	Code loss, bugs, delays	Enforce version control rules and conduct regular code reviews	Medium	Scrum Team	Setup CI/CD pipeline for integration
R-02-5	Integration failure between MERN and TensorFlow.js components	Broken recommendation engine	Define clear API interfaces and test early integration	High	Scrum Team	Start AI model integration by week 4

Rubric for Project Assessment (CO3)

Criteria	Marks distribution (Max 3X5= 15)				Acquired Marks
	Inadequate (1-2)	Satisfactory (3)	Good (4)	Excellent (5)	
Selection of Software Engineering Models	Does not articulate a position or argument of choosing appropriate model. Does not present any evidence to support the arguments for the choice of the model	Articulates a position or argument for choosing models that is unfocused or ambiguous. Presents incomplete/vague evidence to support argument for model choice	Articulates a position or argument of choosing models that is limited in scope. Does not present enough evidence to support the argument for the choice of the model	Clearly articulates a position or argument for the choosing software engineering models. Presents sufficient amount of evidence to support argument for the model selection	
Role identification and Responsibility Allocation	The project has poor project management plans for identifying roles and assigning the responsibilities	Identify few roles in the project management where some of the roles are left alone with any project responsibilities	Identify most of the roles in the project management and assign their responsibilities	Well planned project with proper role identification and responsibility allocation in the project management activities	
Impact identification					

Formatting and Submission	Project report is not complete and Several errors in spelling and grammar. Present a Confusing organization of concepts, supporting arguments, and real-life example. Sentences rambling, and details are repeated.	Some errors in spelling and grammar. Some problems of organizing the answer in a logical order of defining, elaborating, and providing real-life examples.	Few errors in spelling and grammar. Presents most of the details in a logical flow of organization in definition, details, and example.	Project report is complete and No errors in spelling and grammar. Consistently presents a logical and effective organization of definition, details, and real-life example of the topic.	
Acquired marks:					
CO Pass / Fail:					

Rubric for Project Assessment (CO4)

Marking Criteria	Marks Distribution (Maximum 3X5=15)				Acquired Marks
	Inadequate (1-2)	Satisfactory (3)	Good (4)	Excellent (5)	
Project Planning	No background information regarding the project is given; project goals and benefits are missing.	Insufficient background information is given; project goals and benefits are poorly stated	Sufficient background information is given; the purpose and goals of the project are explained.	Thorough and relevant background information is given; project goals are clear and easy to identify.	
Effort Estimation and Scheduling	Student vaguely discuss the impact of societal, health, safety, legal and cultural	Student provided with partial relevance to the impact of societal, health, safety, legal and cultural	Student fairly provided the analysis to the impact of societal, health, safety,	Student comprehensively provided the analysis to the impact of societal, health, safety, legal and cultural issues in their project	

	issues in their project	issues in their project	legal and cultural issues in their project		
Risk Management	Ambiguous representative example.	Partially identify / indicate towards real-life example.	Real-life example is fairly connected towards the definition.	Comprehensively defend with real life example.	
Acquired Marks:					
CO Pass / Fail:					

CO5 [PO-i-2]: Perform as an effective team member or leader in diverse team settings and solve multi-disciplinary problems in computer science and engineering domain.

Assessment Attribute/Criteria	Missing/ Incorrect (0)	Inadequate (1)	Satisfactory (2)	Excellent (3)
Taking responsibility	Does not perform assigned tasks; often misses meetings and, when present, does not have anything constructive to say; relies on others to do the work;	Partially performs all assigned tasks; attends meetings irregularly and occasionally participates and hence not reliable;	Performs all assigned tasks; attends meetings regularly and usually participates effectively. generally reliable;	Performs all tasks very effectively; attends all meetings and participates enthusiastically; very reliable.
Contributions	Never provides useful ideas when participating in a group discussion	Rarely provides useful ideas when participating in a group discussion	Sometimes provides useful ideas when participating in a group discussion	Routinely provides useful ideas when participating in a group discussion
Collaboration and Ability to Compromise	Not cooperative, unable to compromise	Sometimes cooperative, and rarely displays a	Usually cooperative, able to compromise and generally display	Always cooperative. Willingness to compromise.

	and disrupts the team process.	positive attitude.	positive attitude.	Always display positive attitude.
Valuing other team members (Working with others)	Often argues with teammates; doesn't let anyone else talk; occasional personal attacks and "put-downs"; wants to have things done his way and does not listen to alternate approaches.	Seldom listens to others' points of view; occasionally behaves in an oppressive manner; tries to force their own ideologies on others.	Generally, listens to others' points of view; always uses appropriate and respectful language; tries to make a definite effort to understand others' ideas.	Always listens to others and their ideas; helps them develop their ideas while giving them full credit; always helps the team reach a fair decision.