



American International University-Bangladesh (AIUB)

Department of Computer Science
Faculty of Science & Technology (FST)
Fall 24 - 25

Section: C

Software Quality Assurance and Testing

Study compass

A Report submitted

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Date:

Software Test Plan

for

Study Compass

Version 1.0 approved

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STUDY COMPASS

28 January 2025

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Revision History

Revision	Date	Updated by	Update Comments
0.1	21.01.2025	MD SABBIR SIKDER	First Draft
0.2	23.01.2025	MD TAWFIQUR RAHMAN	Second Draft
0.3	25.01.2025	RIMON PRAMANIK	Final Revision

1.TEST PLAN IDENTIFIER: TP_Study_Compass_1.0**2.REFERENCE:**

Software Requirement Specification (SRS) Document & project:
<https://github.com/TanzilRayhan/StudyCompass>

3. INTRODUCTION**3.1 Background to the Problem**

Many students in Bangladesh want to study abroad but they face several challenges in finding reliable information. They struggle with understanding university admission processes, visa requirements, scholarship opportunities and financial planning. Often, they rely on scattered online sources or expensive consultancy services which may not always be trustworthy.

The root cause of this problem is the lack of a centralized and reliable platform that provides accurate and up-to-date information on studying abroad. Without proper guidance students may miss deadlines, make mistakes in applications or face financial difficulties.

This problem is important because it affects students' future education and career opportunities. A well-structured information platform can help them make better decisions, reduce stress and improve their chances of successfully studying abroad.

3.2 Solution to the Problem**The solutions we are going to propose to deal with the problem:**

The proposed solution is the development of a Study Abroad Assistance Platform. It is an integrated online system that provides all necessary information for students who want to study abroad. The platform includes university details, visa and scholarship guidance, financial planning tools, application assistance, and real student experiences. The user interface ensures an easy and accessible experience for students, while administrators can update and verify the information to keep it accurate and relevant.

The reason for the solution is appropriate to solve the problem:

This solution is appropriate because it eliminates confusion and misinformation by providing a centralized source of study abroad guidance. Instead of searching multiple sources students can find all necessary details in one place. By allowing administrators to update content regularly it ensures accuracy and reliability. The solution is feasible as it is designed to be scalable, allowing new universities, scholarships and resources to be added overtime.

Short description of the software being specified and its purpose:

The Study Abroad Assistance Platform is an online system designed to help students access complete and up-to-date study abroad information. Its purpose is to simplify the study abroad process by offering structured guidance on university selection, visa procedures, scholarship opportunities and financial planning. The key objectives are to increase accessibility, save time and reduce costs for students by providing free and structured resources. The goal is to ensure that students can make informed decisions without relying on costly consultancy services.

Existing studies presented in the problem area:

Existing platforms like IDP, ApplyBoard and StudyPortals provide similar services, but they often focus on specific countries or universities and may have limited free features. These solutions may also be influenced by university partnerships leading to biased recommendations. The Study Abroad Assistance Platform aims to fill this gap by offering an unbiased, broader and more affordable approach ensuring students get neutral and accurate information tailored to their needs.

4. REQUIREMENT SPECIFICATION

4.1 System Feature

4.1.1. User Authentication (Signup & Sign in)

4.1.1.1. User Signup

Functional Requirements

- 1.1. The software shall allow users to sign up by providing their full name, email, password, and user type (User/Miner).
- 1.2. The system shall validate that the email is unique before allowing registration.
- 1.3. The password shall be at least 8 characters long and contain at least one special character.
- 1.4. The system shall require users to re-enter their password for confirmation.

Priority Level: High

Precondition: User must provide valid signup credentials.

4.1.1.2. User Sign in

Functional Requirements:

- 2.1. The system shall allow users to sign in using a registered email and password.
- 2.2. If the email and/or password are incorrect, the system shall display an error message.
- 2.3. If the user enters incorrect login credentials more than 3 times, a verification code shall be required for reattempt.

2.4. If login attempts exceed 5 times, the system shall temporarily block the user for 1 hour.

Priority Level: High

Precondition: User must have a valid email and password for login.

4.1.2. User Dashboard

Functional Requirements:

2.1. The system shall display the user's profile information, including name, email, and academic details.

2.2. The system shall allow users to update their academic details.

2.3. The system shall display saved universities, scholarships, and articles under a bookmarks section.

2.4. The system shall list recent notifications in chronological order.

Priority Level: High

Precondition: User must be logged in.

4.1.3. Admin Dashboard

Functional Requirements:

3.1. The system shall allow admins to log in using valid credentials.

3.2. The system shall allow admins to view user activity and system analytics.

3.3. The system shall allow admins to add, update, or delete universities, scholarships, and articles.

3.4. The system shall allow admins to view, update, or delete user accounts.

Priority Level: High

Precondition: Admin must be logged in.

4.1.4. University Search Tool

Functional Requirements:

4.1. The system shall allow users to search for universities by country, budget range, and courses offered.

4.2. The system shall display university details, including tuition fees, application deadlines, and admission requirements.

4.3. The system shall dynamically update search results based on filters.

4.4. The system shall provide pagination for large search results.

4.5. Clicking on a university shall open a detailed information page.

Priority Level: High

Precondition: User must have access to the search feature.

4.1.5. Scholarship Finder

Functional Requirements:

5.1. The system shall allow users to search scholarships based on eligibility criteria, budget, and other filters.

5.2. The system shall display scholarships tailored for Bangladeshi students.

5.3. Scholarships must be filterable by key attributes such as GPA requirements, deadlines, and location.

5.4. Clicking on a scholarship shall display detailed information, including application instructions.

Priority Level: High

Precondition: User must have access to the scholarship search feature.

4.1.6. Exam Preparation Resources

Functional Requirements:

- 6.1. The system shall provide categorized study materials for different exams such as IELTS, GRE, etc.
- 6.2. The system shall offer dynamic resources like practice tests.
- 6.3. The system shall provide instant feedback and scores for practice tests.

Priority Level: Medium

Precondition: User must have access to the exam resources section.

4.1.7. Budget Estimator

Functional Requirements:

- 7.1. The system shall allow users to calculate tuition and living costs for different countries.
- 7.2. The system shall integrate with a currency converter API for real-time conversions.
- 7.3. Users shall provide inputs such as tuition fees, living expenses, and duration of stay.
- 7.4. The system shall update currency conversion dynamically.

Priority Level: Medium

Precondition: User must provide valid cost input values.

4.1.8. News and Articles

Functional Requirements:

- 8.1. The system shall allow users to view curated articles and news updates related to studying abroad.
- 8.2. Articles shall be categorized by topic (e.g., visas, scholarships, university rankings).
- 8.3. Clicking on a news/article headline shall redirect the user to a detailed view page.

Priority Level: Medium

Precondition: User must have access to the news and articles section.

4.1.9. Notifications

Functional Requirements:

- 9.1. The system shall display notifications related to user activity, updates, and new opportunities.
- 9.2. Notifications shall be shown in chronological order.
- 9.3. Admins shall receive notifications about important user queries.
- 9.4. Admins shall be able to respond to user queries via email.

Priority Level: High

Precondition: User/Admin must have notification access.

4.1.10. Contact Us

Functional Requirements:

- 10.1. The system shall provide a contact form for users to enter their name, email, and message.
- 10.2. Users shall be able to submit inquiries or request assistance.
- 10.3. The system shall display customer support contact details, including email and phone number.

Priority Level: Medium

Precondition: User must access the contact page.

4.1.11. Events

Functional Requirements

Events (User)

11.1. The system shall allow users to browse upcoming events such as university fairs, webinars, and workshops.

11.2. Users shall be able to filter events by date, location (online or offline), and topic.

11.3. The system shall display event details, including date, time, location, and registration link.

Events (Admin)

11.4. The system shall allow admins to add new events by providing an event name, date, time, venue, organizer, and admin ID.

11.5. The system shall allow admins to update or delete existing events.

11.6. The system shall allow admins to search for specific events.

Priority Level: High

Precondition: Users must have access to the event module. Admins must have appropriate permissions to manage events.

4.2 System Quality Attributes

Usability: The system should provide an intuitive interface, allowing users to browse and register for events within an average of three and a maximum of five minutes.

Performance: The system should display event listings and search results within two seconds of user input.

Scalability: The system should support up to 10,000 concurrent users browsing and registering for events without performance degradation.

Security: Only authorized admins should be able to add, update, or delete events, ensuring data integrity.

Availability: The event module should be accessible 24/7 with a maximum downtime of 0.1% per month.

Maintainability: The system should allow event updates without requiring downtime or service interruptions

4.3 System Interface



StudyCompass Home Universities News & Articles Events

Search Universities

ID	NAME	LOCATION	MAJOR	WEBSITE
2	Oxford University	UK	Medicine	Visit Website
3	University of Tokyo	Japan	Science	Visit Website
4	Stanford University	USA	Business	Visit Website
5	University of Cambridge	UK	Arts	Visit Website
6	Australian National University	Australia	EEE	Visit Website
7	National University of Singapore	Singapore	Technology	Visit Website

StudyCompass Home Universities News & Articles Events

News and Articles

Total Articles: 5

Global Scholarship Opportunities for 2025

[Scholarships](#)

As 2025 approaches, numerous universities and organizations are rolling out new scholarship opportunities for international students. These scholarships cover a wide range of disciplines, allowing students from different academic backgrounds to apply. Some notable programs include full-ride scholarships, partial funding, and specialized grants for research and innovation. Students are encouraged to start their application process early and prepare strong personal statements and recommendation letters to maximize their chances of success. Here is a detailed breakdown of the top 10 scholarships currently available and how to apply for them.

Upcoming Changes to Visa Policies in 2024

[Visa Updates](#)

The new year will bring significant changes to the visa policies affecting international students. Countries like the United States, Canada, and Australia

StudyCompass

Home Universities News & Articles Events

Search Events

Search Events...

Events List

EVENT NAME	EVENT VENUE	EVENT DATE	EVENT TIME	EVENT ORGANIZER
59th Bangladesh International Education Expo 2025	ICC	2025-01-23	22:00:00	PFEC Global
event1	venue1	2025-01-23	20:58:00	organizer1
test4	International Convention City Bashundhara (ICCB),	2025-01-24	20:59:00	organizer2

StudyCompass

Home Universities News & Articles Events

Contact US

Name:

Email:

Message

Submit

Frequently Asked Questions (FAQ) - Study Abroad

- 1. What are the best countries for studying abroad?**
Some of the best countries for studying abroad include the USA, UK, Canada, Australia, Germany, and Japan. Each offers unique opportunities depending on your major and career goals.
- 2. Are scholarships available for international students?**
Yes, many universities and organizations offer scholarships for international students, including merit-based, need-based, and specific field-related scholarships. Examples include Fulbright, Chevening, and Erasmus Mundus.
- 3. How can I apply for scholarships?**
Start by researching scholarships related to your chosen country or major. Prepare your application documents, such as a personal statement, transcripts, and recommendation letters. Be sure to meet deadlines and follow the application guidelines.
- 4. What majors are most in demand internationally?**
Popular majors include Computer Science, Engineering, Business Administration, Medicine, and Data Science. These fields offer strong career prospects and global job opportunities.
- 5. What are the language requirements for studying abroad?**
Language requirements vary by country and institution. Most English-speaking countries require IELTS or TOEFL scores. Some non-English-speaking countries may require proficiency in their native language (e.g., German, French, Japanese).

Terms and Conditions

Introduction

Welcome to our website! By using our site, you agree to comply with and be bound by the following terms and conditions. Please read them carefully.

Acceptance of Terms

By accessing or using the services provided on this site, you agree to abide by these terms and conditions. If you do not agree to these terms, please do not use our website.

Use of Website

You agree to use this website only for lawful purposes and in accordance with these terms. You may not use this site for any illegal activities or activities that violate these terms.

Intellectual Property

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The screenshot shows a web browser window with the URL 127.0.0.1/StudyCompass-main/view/createPost.php. The page title is "Create Post". It features a "Your Username" input field, a "Title" input field, a "Content" text area, a "Submit" button, and a "Back" button. The browser's address bar also displays "StudyCompass". The taskbar at the bottom shows various application icons.

The screenshot shows a web browser window with the URL 127.0.0.1/StudyCompass-main/view/login.php. The page title is "StudyCompass". It features a "Login" form with fields for "Username" (containing "admin") and "Password" (containing "....."). Below the form is a "Login" button and a link "Don't have an account? [Register here](#)". The browser's address bar also displays "StudyCompass". The taskbar at the bottom shows various application icons.

Welcome, Admin

Total Users	Active Universities	Scholarships	Articles
3	13	6	5

Recent Admin Activity

SL.	FULL NAME	EMAIL	USERNAME	ACTIONS
1	admin	admin@email.com	admin	Delete Update
2	Tanzil Rayhan	tanzil@email.com	tanzil	Delete Update
3	Ariful Islam	arif@email.com	arif	Delete Update
4	Sabbir Sikder	sabbir@email.com	sabbir	Delete Update
5	Mofakkar Hossain Mahim	mahim@email.com	mahim	Delete Update

Manage Scholarships

NAME	UNIVERSITY	COUNTRY	BUDGET	COURSE	DEADLINE	WEBSITE	ACTIONS
Global Excellence Award	University of Sydney	Australia	5000.00	Engineering	2025-03-31	Visit	Edit Delete
Chevening Scholarship	University of Cambridge	UK	20000.00	Social Sciences	2025-05-15	Visit	Edit Delete
ASEAN Scholarship	NUS	Singapore	10000.00	Any	2025-06-30	Visit	Edit Delete
Fulbright Scholarship	Harvard University	USA	25000.00	Any	2025-07-15	Visit	Edit Delete
Eiffel Excellence Scholarship	University of Paris	France	15000.00	Engineering	2025-05-30	Visit	Edit Delete
DAAD Scholarship	Technical University of Munich	Germany	18000.00	STEM	2025-05-31	Visit	Edit Delete

[Add New Scholarship](#)

[Back](#)

The screenshot shows a web browser window with the URL 127.0.0.1/StudyCompass-main/view/universitiesAdmin.php. The page title is "StudyCompass". The main content is a table listing universities with columns: ID, NAME, LOCATION, MAJOR, WEBSITE, and ACTIONS. The table has 9 rows. The last row is partially visible. The browser's taskbar at the bottom shows various pinned icons and the date/time: 1:50 AM 1/31/2025.

ID	NAME	LOCATION	MAJOR	WEBSITE	ACTIONS
2	Oxford University	UK	Medicine	Visit Website	Edit Delete
3	University of Tokyo	Japan	Science	Visit Website	Edit Delete
4	Stanford University	USA	Business	Visit Website	Edit Delete
5	University of Cambridge	UK	Arts	Visit Website	Edit Delete
6	Australian National University	Australia	EEE	Visit Website	Edit Delete
7	National University of Singapore	Singapore	Technology	Visit Website	Edit Delete
8	ETH Zurich	Switzerland	Architecture	Visit Website	Edit Delete
9	Peking University	China	Economics	Visit Website	Edit Delete

Search Events

Search Events... [Add New Event!](#)

Events List

ADMIN ID	EVENT NAME	EVENT VENUE	EVENT DATE	EVENT TIME	EVENT ORGANIZER	ACTIONS
1	59th Bangladesh International Education Expo 2025	ICC	2025-01-23	22:00:00	PFEC Global	Edit Delete
1	event1	venue1	2025-01-23	20:58:00	organizer1	Edit Delete
1	test4	International Convention City Bashundhara (ICCB),	2025-01-24	20:59:00	organizer2	Edit Delete

Admin Dashboard - Manage News

[View Articles](#) [Create Articles](#)

Global Scholarship Opportunities for 2025

[Scholarships](#)

As 2025 approaches, numerous universities and organizations are rolling out new scholarship opportunities for international students. These scholarships cover a wide range of disciplines, allowing students from different academic backgrounds to apply. Some notable programs include full-ride scholarships, partial funding, and specialized grants for research and innovation. Students are encouraged to start their application process early and prepare strong personal statements and recommendation letters to maximize their chances of success. Here is a detailed breakdown of the top 10 scholarships currently available and how to apply for them.

[Edit](#) [Delete](#)

Upcoming Changes to Visa Policies in 2024

[Visa Updates](#)

StudyCompass Home Universities News & Articles Events News & Articles Dashboard

Admin - View Applications

APPLICATION NUMBER	USERNAME	STATUS	RESPONSE	ACTION
No applications found.				

[Back](#)

StudyCompass Home Universities News & Articles Events News & Articles Dashboard

USERNAME	EMAIL	MESSAGE	ACTIONS
sabbir	mdsabbirh083@gmail.com	You should add more information about	Delete Reply

The screenshot shows a web browser window with the URL 127.0.0.1/StudyCompass-main/view/replyContract.php?id=20. The page title is "StudyCompass". The main content area is titled "Contract Response". It contains two text input fields: "Username: sabbir" and "Email: mdsabbirh083@gmail.com". Below these is a "Message" section with the text "You should add more information about univerties courses.". Another section titled "Response" contains the text "thanks for your kind information. In future we will try our best.". At the bottom left is a "Send" button, and at the bottom right is a "Dashboard" link.



The screenshot shows a web browser window with the URL 127.0.0.1/StudyCompass-main/view/adminRegister.php. The page title is "StudyCompass". The main content area has a header "StudyCompass" and a navigation menu with links to "Home", "Universities", "News & Articles", "Events", "News & Articles", and "Dashboard". A modal dialog box is centered on the page, titled "Admin Register". It contains four input fields: "Full Name" (with a placeholder box), "Email" (with a placeholder box), "Username" (with a placeholder box), and "Password" (with a placeholder box). Below these fields is a large blue "Create" button.

The screenshot shows a web browser window for the StudyCompass application. The URL is 127.0.0.1/StudyCompass-main/view/userDashboard.php. The page displays a welcome message "Welcome, john" and a sidebar titled "Dashboard" with links for Profile Information, Scholarships, Universities, Documents, Application Tracker, Bookmarks, and Budget Estimator. The main content area shows "Profile Information" with details: Name: John Don, Email: john@email.com, Age: 30, Date of Birth: 1993-05-15, and a "Edit Profile" button. Below this is a "Bookmarks" section with a list: Harvard University, AI and Machine Learning Scholarship, and 10 Tips for Effective Study, along with a "Manage Bookmarks" button. The browser's address bar shows multiple tabs and icons.

The screenshot shows a web browser window for the StudyCompass application. The URL is 127.0.0.1/StudyCompass-main/view/profile.php. The page displays a "Profile Information" section with a table showing the following details:

FULL NAME	John Don
EMAIL	john@email.com
USERNAME	john
AGE	30
DATE OF BIRTH	1993-05-15
GENDER	male
ADDRESS	123 Main St, New York, NY

The browser's address bar shows multiple tabs and icons.

Scholarships

NAME	UNIVERSITY	COUNTRY	BUDGET	COURSE	DEADLINE	WEBSITE	ACTION
Global Excellence Award	University of Sydney	Australia	5000.00	Engineering	2025-03-31	Visit	Bookmark
Chevening Scholarship	University of Cambridge	UK	20000.00	Social Sciences	2025-05-15	Visit	Bookmark
ASEAN Scholarship	NUS	Singapore	10000.00	Any	2025-06-30	Visit	Bookmark
Fulbright Scholarship	Harvard University	USA	25000.00	Any	2025-07-15	Visit	Bookmark
Eiffel Excellence Scholarship	University of Paris	France	15000.00	Engineering	2025-05-30	Visit	Bookmark
DAAD Scholarship	Technical University of Munich	Germany	18000.00	STEM	2025-05-31	Visit	Bookmark

Search Universities

ID	NAME	LOCATION	MAJOR	WEBSITE
2	Oxford University	UK	Medicine	Visit Website
3	University of Tokyo	Japan	Science	Visit Website
4	Stanford University	USA	Business	Visit Website
5	University of Cambridge	UK	Arts	Visit Website
6	Australian National University	Australia	EEE	Visit Website
7	National University of Singapore	Singapore	Technology	Visit Website

The screenshot shows a web browser window with the URL 127.0.0.1/StudyCompass-main/view/document.php. The page title is "StudyCompass" and the active tab is "Dashboard". The main content area is titled "All Necessary Documents". It contains two sections: "Academic Documents" and "Test Scores".

Academic Documents

- Certified Copies of Academic Transcripts: High school/college/university transcripts.
- Degree Certificates/Diplomas: Proof of completed education (e.g., bachelor's degree certificate for master's programs).
- Statement of Marks: Detailed breakdown of grades, if applicable.

Test Scores

- Standardized Test Scores: GRE/GMAT/SAT/ACT (as required by the program).
- English Proficiency Test Scores: IELTS/TOEFL/PTE/Duolingo (for non-native English speakers).

The browser's address bar shows multiple tabs open, including "Ishq Official lyrical", "Auth Dashboard F", "New Tab", "Download file | ilo", "Test Cases.pdf", "All Necessary", and "127.0.0.1 / 127.0.0". The system tray at the bottom right shows the date and time as 1/31/2025, 1:55 AM.

The screenshot shows a web browser window with the URL 127.0.0.1/StudyCompass-main/view/userApplicationTracker.php. The page title is "StudyCompass" and the active tab is "Dashboard". The main content area is titled "Application Tracker".

Enter Application Number

The browser's address bar shows multiple tabs open, including "Ishq Official lyrical", "Auth Dashboard F", "New Tab", "Download file | ilo", "Test Cases.pdf", "Application Tr", and "127.0.0.1 / 127.0.0". The system tray at the bottom right shows the date and time as 1/31/2025, 1:55 AM.

StudyCompass

Home Scholarships Visa Updates Rankings

My Bookmarks

NAME	UNIVERSITY	COUNTRY	BUDGET	COURSE	DEADLINE	WEBSITE	ACTION
No bookmarks found.							

Back

StudyCompass

Home Scholarships Visa Updates Rankings

Budget Estimator

Select University:

Select Scholarship:

Estimate

Back

Remaining Budget:

University: University of Tokyo
 Scholarship: Global Excellence Award
 Original Budget: 3500000
 Scholarship Amount: 5000.00
 Remaining Budget: 3495000

4.4 Project Requirements

4.4.1 Time Estimation:

We used COCOMO (constructive cost model) to calculate development time.

Software Project Type	Coefficient <Effort Factor>	P	T
Organic	2.4	1.05	0.38
Semi-Detached	3.0	1.12	0.35
Embedded	3.6	1.20	0.32

Effort Estimation: $a \times (\text{SLOC} / 1000)^b$

As the project is organic, $a = 2.4$, $b = 1.05$

Here, SLOC = 10000

$$\text{Effort} = 2.4 \times (10000/1000)^{1.05}$$

$$\approx 2.4 \times (10)^{1.05}$$

$$\approx 27 \text{ person-months}$$

$$\text{Development Time} = c \times (\text{Effort})^d$$

Here, $c = 2.5$, $d = 0.38$ [organic]

$$\text{Development Time} = 2.5 \times (26.93)^{0.38}$$

$$\approx 2.5 \times 3.5$$

$$\approx 9 \text{ months}$$

Number of People Required: Effort / (Development Time)

$$\text{Number of People} = (26.93) / 8.75$$

$$\approx 3 \text{ people}$$

4.4.2 Budget Estimation:

Personnel Costs:

Project Manager: \$6,000/month * 9 months = \$54,000

Developers (3): \$4,000/month * 3 developers * 9 months = \$108,000

UI/UX Designer: \$4,000/month * 5 months = \$20,000 (assumed involvement for initial design)

QA Tester: \$3,500/month * 4 months = \$14,000 (involved part-time initially, then full-time during testing)

Total Personnel Cost = \$196,000

Hardware and Software Costs:

Testing Devices (mobile phones, tablets for testing compatibility): \$3,000

Software Tools and Licenses (IDE licenses, testing tools, version control systems, etc.): \$5,000

Cloud Services (hosting, database, and deployment): \$500/month * 9 months = \$4,500

Total Hardware and Software Cost = \$12,500

Miscellaneous Costs:

Office Space and Utilities: \$2,000/month * 9 months = \$18,000

Training Costs (for team members on specific tools and technologies): \$8,000

Meetings (for client meetings, industry expert consultations): \$5,000

Contingency Budget (10% of total budget to handle unexpected expenses): \$30,000

Total Miscellaneous Cost = \$61,000

Total Project Budget:

Personnel Cost: \$196,000

Hardware and Software Cost: \$12,500

Miscellaneous Cost: \$61,000

Total Estimated Budget: **\$269,500** (approximately **32,340,000 BDT** assuming 1 USD = 120 BDT)

4.4.3 Resources:

Team Composition: The development team will consist of a project manager, 3 developers, 1 UI/UX designer, and 1 QA tester.

Hardware and Software: Development will require standard computing equipment, development tools, and access to cloud services for deployment.

4.4.4 Environment:

Development Environment: The project will be developed using **Flutter** for front-end, and a back-end system based on **Node.js** or **Django**, using a **cloud-hosted database**.

Testing Environment: Test servers will be set up to replicate the production environment for system and acceptance testing.

4.4.5 Other Constraints:

The project must comply with **data protection regulations** (e.g., GDPR) to ensure user data is securely handled.

Integration with **third-party payment gateways** must be completed and tested by Month 10 to allow sufficient time for performance validation.

5. FEATURES NOT TO BE TESTED

Third-Party Payment Integration: External payment gateways used for transactions are managed by third-party providers. Only system compatibility will be verified, while functional validation remains the responsibility of the respective service providers.

User-Generated Content Moderation: The platform does not provide automated moderation tools; content review and management fall under administrative responsibilities.

Cross-Browser Compatibility for Legacy Browsers: The system will be optimized for modern browsers; older, supported versions will not be explicitly tested.

External Event Registrations: The system provides event registration links, but the registration process on external platforms will not be tested.

Manual Data Manipulation by Admins: While admins can manage events and users, manual database modifications performed outside the system's UI are not within the test scope.

6 TESTING APPROACH

6.1 Testing Levels

Unit Testing: Each functional module such as **login, signup, events management and booking** will be tested independently by the development team. Developers will create and execute test cases for individual components to ensure they function correctly.

Integration Testing: The complete system will undergo testing to validate compliance with specified requirements. This includes **functional testing, usability testing and performance testing** to ensure all features work seamlessly together. After unit testing, modules will be integrated, and interactions between them will be tested such as verifying the **event creation, filtering and registration process**.

Acceptance Testing: This final level of testing will be conducted with actual end-users to verify that the system meets their needs and expectations. The test will ensure that the system is ready for deployment and aligns with user and business objectives.

6.2 Test Tools

Selenium: For automated functional testing of the user interface across different browsers.

6.3 Meetings

Weekly Testing Progress Meetings: These meetings will be held to review testing progress, discuss errors, and identify any blockers. All team members will participate to ensure clear communication and collaboration.

Bi-weekly Coordination Meetings: The test manager will meet with the development team and project manager every two weeks to discuss integration testing results and any changes in project scope or requirements.

Ad-hoc Meetings: Additional meetings may be scheduled as needed to address urgent issues or significant changes in testing strategy or scope.

7.TEST CASES/TEST ITEMS

Project Name: Study Compass		Test designed by: Md Sabbir Sikder		
Test Case ID: FR_1		Test Designed date: 12.12.2024		
Test Priority (Low, Medium, High): High		Test Executed by: Rimon		
Test Title: verify Add Event Information		Test Execution date:12.01.2025		
Description: Test website Add Event page				
Precondition (If any): Admin must have logged in.				
Test Steps	Test Data	Expected Results	Actual Results	Status (Pass/Fail)
1. Go to Add event Page 2. Enter admin ID 3. Enter event name 4. Enter event date 5. Enter event organizer 6. Enter event time 7. Enter event venue 8. Click add event	Admin ID: 01 Event name: International Education expo Event date:12.12.2025 Event time: 10:00 am Event Organizer: X agency Event Venue: Y	Event should be add.	As expected,	Pass
Post Condition: Event is added into database successfully.				

Project Name: Study Compass		Test designed by: Md Sabbir Sikder		
Test Case ID: FR_2		Test Designed date: 12.12.2024		
Test Priority (Low, Medium, High): High		Test Executed by: Rimon		
Test Title: verifying Update Event Information		Test Execution date: 12.01.2025		
Description: Test website Update Event page				
Precondition (If any): Admin must have logged in.				
Test Steps	Test Data	Expected Results	Actual Results	Status (Pass/Fail)
1. Go to event Page 2. Enter the field that should update (admin ID, event name, event date, event organizer, event time, event venue) 3. Click Update event	Admin ID: 01 Event name: International Education expo Event date: 12.12.2025 Event time: 10:00 am Event Organizer: X agency Event Venue: Y	Event should be update	As expected,	Pass
Post Condition: Event is Updated into database successfully.				

Project Name: Study Compass		Test designed by: Md Sabbir Sikder		
Test Case ID: FR_3		Test Designed date: 12.12.2024		
Test Priority (Low, Medium, High): High		Test Executed by: Rimon		
Test Title: verify Delete Event		Test Execution date: 12.01.2025		
Description: Test website Delete Event page				
Precondition (If any): Admin must have logged in.				
Test Steps	Test Data	Expected Results	Actual Results	Status (Pass/Fail)
1.Go to the event page 2.Click the delete button of desire event	No test Data needed	Event should be delete.	As expected,	Pass
Post Condition: Event is deleted from database successfully.				

Project Name: Study Compass		Test designed by: Md Sabbir Sikder		
Test Case ID: FR_4		Test Designed date: 12.12.2024		
Test Priority (Low, Medium, High): High		Test Executed by: Rimon		
Test Title: verify Search Event Information		Test Execution date: 12.01.2025		
Description: Test website search page Event page				
Precondition (If any): User must have logged in.				
Test Steps	Test Data	Expected Results	Actual Results	Status (Pass/Fail)
1. Go to event Page 2. Type into search bar to Search with the name of event or organizer name or event venue	Put the key word into search bar	The search will show	As expected,	Pass

Project Name: Study Compass		Test designed by: Md. Tawfiqur Rahman		
Test Case ID: FR_5		Test Designed date: 18.01.2025		
Test Priority (Low, Medium, High): High		Test Executed by: Md Sabbir Sikder		
Test Title: Verify Sign-up		Test Execution date: 22.01.2025		
Description: Test website's Sign-up page				
Precondition (If any):				
Test Steps	Test Data	Expected Results	Actual Results	Status (Pass/Fail)
1. Enter Full name 2. Enter unregistered email 3. Enter password 4. Enter password again 5. Choose username 6. Click Signup	Full name: xyz Email: xyz@gmail.com Password: john Re-password: john Username: john	Signup should be completed.	As expected	Pass
Post Condition: Credential is stored in database, user is redirected to the dashboard, and a copy of the login information is sent to user's email.				

Project Name: Study Compass		Test designed by: Md. Tawfiqur Rahman		
Test Case ID: FR_6		Test Designed date: 19.01.2025		
Test Priority (Low, Medium, High): High		Test Executed by: Rimon Pramanik		
Test Title: Verify Sign-in		Test Execution date: 24.01.2025		
Description: Test website's Sign-in page				
Precondition (If any): User must be a registered user.				
Test Steps	Test Data	Expected Results	Actual Results	Status (Pass/Fail)
<ul style="list-style-type: none"> 1. Enter registered username 2. Enter password 3. Click Sign-in 	Username: john Password: john	Sign-in should be completed.	As expected	Pass
Post Condition: User goes to dashboard.				

Project Name: Study Compass	Test designed by: Md. Tawfiqur Rahman			
Test Case ID: FR_7	Test Designed date: 20.01.2025			
Test Priority (Low, Medium, High): High	Test Executed by: Md Sabbir Sikder			
Test Title: Verify University Search	Test Execution date: 26.01.2025			
Description: Test website's University Search page				
Precondition (If any): User must have logged in.				
Test Steps	Test Data	Expected Results	Actual Results	Status (Pass/Fail)
1.Go to University page 2. search by name into the search bar	University name: Oxford University	Show location, major courses and the website of the university	As expected	Pass

Project Name: Study Compass		Test designed by: Rimon Pramanik		
Test Case ID: SF_08		Test Designed date: 14.12.2024		
Test Priority (Low, Medium, High): High		Test Executed by: MD. Sabbir		
Test Title: Verify Scholarship Search and Filtering Functionality		Test Execution date: 12.01.2025		
Description: Test scholarship search with eligibility and filter options.				
Precondition (If any): User must be logged into the system.				
Test Steps	Test Data	Expected Results	Actual Results	Status (Pass/Fail)
1. Go to the Scholarship Finder page 2. Enter county or university or scholarship name into search bar	User ID: 101 Event name: Australia	The system should display a list of available scholarships matching the selected criteria.	As expected,	Pass
Post Condition: Users can search, filter scholarships, and view application details.				

Project Name: Study Compass		Test designed by: Rimon Pramanik		
Test Case ID: BE_09		Test Designed date: 16.12.2024		
Test Priority (Low, Medium, High): High		Test Executed by: MD. TAWFIQUR		
Test Title: Verify Budget Estimation and Currency Conversion		Test Execution date: 18.01.2025		
Description: Test budget calculation with costs and currency conversion				
Precondition (If any): User must be logged into the system.				
Test Steps	Test Data	Expected Results	Actual Results	Status (Pass/Fail)
1. Go to the budget estimation page 2. select a university from Dropbox 3. select a Scholarship from Dropbox 4. Click Estimate	University: Oxford University Scholarship: Global Excellence Award	Show the university name, scholarship name, original budget, Scholarship amount and Remaining Budget	As expected,	Pass
Post Condition: Users can estimate study budgets with live currency conversion.				

Project Name: Study Compass		Test designed by: Rimon Pramanik		
Test Case ID: CU_10		Test Designed date: 17.12.2024		
Test Priority (Low, Medium, High):High		Test Executed by: MD. Sabbir		
Test Title: Verify Contact Form and Support Info		Test Execution date:19s.01.2025		
Description: Test contact form submission and visibility of support details.				
Precondition (If any): User must be logged into the system.				
Test Steps	Test Data	Expected Results	Actual Results	Status (Pass/Fail)
1. Go to the Contact Us Page. 2. Enter name, email, and message in the contact form 3. Click the Submit button	Username: rimon Email: j@example.com Message: "Need help"	The system should accept and display to admin as notification	As expected,	Pass
Post Condition: Users can submit inquiries and access support details easily.				

8. ITEM PASS/FAIL CRITERIA

8.1 Sign-In Functionality:

Pass: Users can successfully log in using a valid username and password.

Fail: Users cannot log in with correct credentials, experience system errors, or are unable to access their accounts.

8.2 Sign-Up Functionality:

Pass: Users can create an account by providing all required details, and the system validates the information correctly.

Fail: The system allows account creation with invalid data or prevents users from signing up despite providing valid information.

8.3 Event Management (Admin):

Pass: Admins can successfully add, update, delete, and search for events.

Fail: Any of these actions result in incorrect database entries, failure to execute, or errors in event details.

8.4 Event Browsing (User):

Pass: Users can browse and filter events based on date, location, and topic. Event details display correctly, including date, time, venue, and registration links.

Fail: Event listings are missing, filters do not work correctly, or event details are incomplete or incorrect.

8.5 Notification System:

Pass: Users and admins receive correct and timely notifications for upcoming events or system updates.

Fail: Notifications are delayed, missing, or contain incorrect information.

8.6 Search Functionality:

Pass: Users and admins can search for events efficiently using keywords and filters.

Fail: The search function returns incorrect or no results despite valid queries.

8.7 User Interface & Accessibility:

Pass: The system's interface is responsive and accessible across different devices and screen sizes.

Fail: UI elements are misaligned, unreadable, or non-functional on certain devices.

8.8 Security & Authorization:

Pass: Unauthorized users cannot access admin functions or restricted content.

Fail: Security vulnerabilities allow unauthorized access to admin controls or user data.

8.9 Performance Criteria:

Pass: The system maintains a response time of under 2 seconds for all interactions under normal usage conditions.

Fail: The system response time exceeds acceptable limits or crashes under standard usage loads.

8.10 Data Integrity:

Pass: All user and admin interactions (e.g., account creation, event management) correctly reflect in the database.

Fail: Any discrepancies in stored data, such as missing or incorrect user or event details.

8.11 System Recovery & Error Handling:

Pass: The system properly handles errors with user-friendly messages and logs critical failures.

Fail: Errors cause system crashes, or users receive unclear or misleading error messages.

9. TEST DELIVERABLES

9.1 Acceptance Test Plan – A document outlining the acceptance criteria, test scenarios and expected results to validate system readiness for deployment.

9.2 System/Integration Test Plan – A plan detailing test cases and procedures for verifying interactions between different system components.

9.3 Unit Test Plans/Turnover Documentation – Test cases for individual components, along with supporting documentation for review and approval.

9.4 Screen Prototypes – Early-stage UI mock-ups to visualize the system's layout and ensure user requirements are met before development.

9.5 Report Mock-ups – Sample reports demonstrating how event details, user interactions, and system data will be presented.

9.6 Defect/Incident Reports and Summaries – Documentation of identified issues, including severity, resolution status, and impact analysis.

9.7 Test Logs and Turnover Reports – Logs tracking test execution progress, defect resolution, and final approvals before moving to the next phase.

10 STAFFING AND TRAINING NEEDS

10.1 Testing Personnel: At least one full-time tester will be assigned during the system/integration and acceptance testing phases. Initially, a part-time tester will participate in project reviews and transition to full-time approximately four months into the project. If a dedicated tester is unavailable, the project manager/test manager will assume this role.

10.2 Developer & Tester Training: Developers and testers will receive training on the system's core functionalities, including integration with external interfaces and data handling processes.

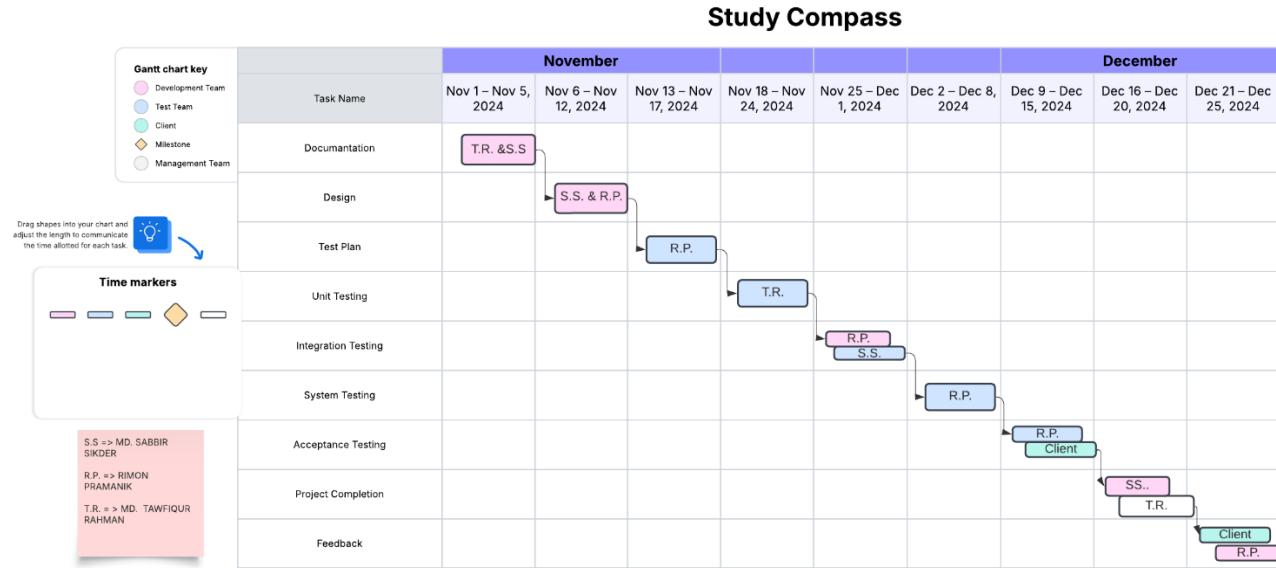
10.3 Operations Staff Training: Before final project acceptance, the operations team will undergo training on system functionalities, including event management and data processing workflows.

10.4 End-User Training: The system's administrative users, including event organizers and sales administration staff, will be trained on managing events, generating reports, and navigating system interfaces.

11 RESPONSIBILITIES

Task	Test Manager	Project Manager (PM)	Development Team	Test Team	Client
Acceptance Test Documentation & Execution	X			X	X
System/Integration Test Documentation & Execution	X		X	X	
Unit Test Documentation & Execution			X		
System Design Review	X	X	X		X
Detail Design Reviews		X	X		X
Test Procedures & Rules	X	X		X	
Screen & report prototype Reviews		X	X		X
Change Control & Regression Testing	X	X		X	

12 TESTING SCHEDULE



13 PLANNING RISKS AND CONTINGENCIES

13.1 Limited Testing Resources: One major risk is the shortage of dedicated testers due to budget constraints with only one full-time tester assigned to system/integration and acceptance testing. This may lead to delays in identifying and resolving defects. To mitigate this risk the test manager and developers will assist in testing when necessary to ensure deadlines are met.

13.2 Client Availability for Acceptance Testing: If client representatives are unavailable for scheduled reviews and acceptance testing it could cause significant delays. In such cases, testing schedules will be adjusted accordingly but no phase of the testing process will be skipped to maintain quality assurance.

13.3 Delays in Development: Potential delays may arise if critical defects are discovered late in the testing phase requiring additional debugging and fixes. To address this, developers will prioritize fixing critical defects early to minimize disruptions and ensure smooth testing progress.

14 APPROVALS

Project Sponsor	Approved
Development Management	Approved
EDI Project Manager	Approved
RS Test Manager	Approved
RS Development Team Manager	Approved
Reassigned Sales	Approved
Order Entry EDI Team Manager	Approved