



American International University-

Bangladesh (AIUB)

Department of Computer Science
Faculty of Science & Technology (FST)
Summer 21 22

Section: G
Software Quality Assurance and Testing

Blog Management System

A Report submitted
By

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Software Test Plan

for

Blog Management System

Version 1.0 approved

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30 April, 2023

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Revision History

Revision	Date	Updated by	Update Comments
0.1	2023.04.12	Tanjib Rubyat Bristy	First Draft
0.2	2023.04.16	Muvín Mohammad	Second Draft
0.3	2023.04.20	Ridowan UI Alam	Third Draft
0.4	2023.04.22	Muvín Mohammad	Fourth Draft
0.5	2023.04.24	Tanjib Rubyat Bristy	Fifth Draft
0.6	2023.04.25	Ridowan UI Alam	Sixth Draft
0.7	2023.04.27	Tanjib Rubyat Bristy	Seventh Draft
0.8	2023.04.28	Ridowan UI Alam	Eighth Draft
0.9	2023.04.29	Muvín Mohammad	Ninth Draft

1. TEST PLAN IDENTIFIER:RS-MTP01.3

2. REFERENCES

- <http://www.tutorialspoint.com>
- <http://www.javatpoint.com>
- <http://www.geeksforgeeks.org>

3. INTRODUCTION

Background to the Problem

To share thoughts or ideas people need to create their own website or use a social media platform. This requires more technical knowledge, and effort, and the content can't be centralized in one location. As a result, People can't be able to discover and follow specific blogs, and the overall blogging community may not be as cohesive. And customizing their websites is another painful task.

Solution to the Problem

Creating a blogging web app can help solve these problems by providing a centralized platform for individuals to create and share their blog posts. This platform allows people to easily create and manage their own blogs without needing to have technical knowledge or website building skills. The software provides users with a user-friendly interface that simplifies the process of creating and publishing blog posts.

With a centralized platform for blogging, people can easily discover and follow specific blogs. The blogging web app allows users to browse and search for blogs based on topics, keywords, or tags. This makes it easier for people to find blogs that they are interested in and follow them.

Another advantage of a blogging web app is that it fosters a more cohesive blogging community. By bringing together bloggers on one platform, the web app allows users to interact with each other and build a community around their shared interests. This can lead to more collaboration and sharing of ideas among bloggers.

Finally, a blogging web app makes it easier for users to customize their websites without needing to have technical knowledge.

In conclusion, blogging software provides a centralized platform for individuals to share their thoughts and ideas with others in the form of blog posts. Creating a blogging web app can help solve the problems of technical knowledge and effort, lack of centralization, difficulty in discovering and following specific blogs, and lack of a cohesive blogging community.

4. REQUIREMENT SPECIFICATION

4.1 System Features

- List down the system functional requirements that describe the system's functionalities.

1. System Registration

Functional Requirements

- 1.1 The software shall allow users to register themselves with their proper name, email, date of birth, gender, and password.
- 1.2 If the inserted data has been invalid, then the system will not allow user to register.
- 1.3 If all the data is valid then all the data from user will be stored in the database.

Priority Level: Medium

Precondition: None

2. System Login

Functional Requirements

- 2.1 The software shall allow users to login with their given username and password.
- 2.2 If the username and/or password has been inserted wrong more than three times, the random verification code will be generated by the system to retry login.

Priority Level: High

Precondition: user have valid user id and password.

3. Create Post

Functional Requirements

- 3.1 The software shall allow users to create posts with title, details, date of post, and author name.

3.2 If the title or details has been inserted wrong then the system won't allow to create post, Date of post will remain same as real date and author name will be selected automatically from session.

3.3 If all the input data is valid then the post data from user will be stored in the database.

Priority Level: Medium

Precondition: user have to be logged in.

4. Update Profile

Functional Requirements

4.1 The software shall allow users to update his/her profile with name, email, date of birth, and gender.

4.2 If the any data has been inserted wrong then the system won't allow us to update profile, password can't be changed for security purposes.

4.3 If all the input data is valid then the updated profile of the user will be stored in the database.

Priority Level: Medium

Precondition: user have to be logged in.

5. Update Post

Functional Requirements

5.1 The software shall allow users to update posts with title, details.

5.2 If the title or details has been inserted wrong then the system won't allow to update post, Date of post will remain same as real date and author name will be selected automatically with logged user.

5.3 If all the input data is valid then the updated post from user will be stored in the database.

Priority Level: Medium

Precondition: user have to be logged in.

4.2 System Quality Attributes

- List down the quality attributes that describe how well the system should perform.

QA1: Portability: The software must be capable of running in any platform or operating system. Such as Windows, Linux, Android, Apple, and so on.

Priority level: High

Precondition: N/A

Cross-reference: QA2

QA2: Reusability: The software's function should be created in such way that those function can be used in any other software.

Priority level: Low

Precondition: N/A

Cross-reference: QA1, QA4

QA3. Availability: The system shall be at least 97.5 percent available everyday between 5.00 a.m. and 12.00 pm local time, and at least 99.5 percent available on weekdays between 8.00 am and 12.00 pm local time.

Priority level: High

Precondition: N/A

Cross-reference: N/A

QA4. Integrity: Only admin and editor have access to view user's information.

Priority level: High

Precondition: User must register him/herself.

Cross-reference: QA2

4.3 System Interface

- Draw the system interface where the users will interact with the system's functionality.



Username

Password

☒ Remember me

Login

Don't have an account? [Register](#)



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Admin

2023-04-27

What is Java?

Java is a programming Language



Ridowan Sajid

2022-12-11

What is soccer?

Soccer is the alternative name of football which is widely used in USA.



Editor

2022-12-11

Todays weather

Search Here.....

Search

Sign up

Your Name

Your Email

Date of Birth

☐ Female ☐ Male ☐ Other

Gender

Password

Repeat your password

Register



[Home](#) [Tanjib Bristy](#) [Registration](#) [My Post](#) [Create Post](#) [Update My Profile](#) [Log Out](#)

Update Profile

Your Name

Your Email

Date of Birth

☒ Female ☐ Male ☐ Other Gender

Submit



4.4 Project Requirements

- Time: We require 1 month to complete this project.
- Budget: We need BDT 150,000 to create this software.
- Resources: We need 10 developers to complete this project.
- Environment: We need a flat or office, big enough to fit 12-15 people.

5. FEATURES NOT TO BE TESTED

The following is a list of the areas that will not be specifically addressed. All testing in these areas will be indirect as a result of other testing efforts:

- Logout of accounts.
- Create editor, delete post.
- Change password of the user.
- Searching for any post/user.

6. TESTING APPROACH

6.1 Testing Levels

- **UNIT Testing:** During our unit testing, we conducted test on individual software module and check for any errors. This testing will be carried out by the developer and will be approved by the development team leader. The goal is to verify that each unit of code functions as intended. Unit testing is a white box technique where software's internal structure, design, and coding are tested to verify input-output flow and improve design, usability, and security.
- **Integration Testing:** After unit testing, we did the integration testing. Unit testing uses modules for testing purposes, and these modules are combined and tested in integration testing. The Software is developed with a number of software modules that are coded by different coders or programmers. The goal of integration testing is to check the correctness of communication among all the modules. We used Bottom-Up technique in our software.
- **System Testing:** After completing integration testing, we proceed with system testing, where we thoroughly tested the fully integrated system to ensure it meets all the specified requirements. This testing has been done using the "Black Box Testing" technique, as it focuses on the system's overall functionality without examining the internal code or structure. Our goal is to verify that the system functions as a complete, integrated unit and meets all the requirements.

- **Acceptance Testing:** Then we did Acceptance testing which is a testing technique performed to determine whether the software system has met the requirement specifications. The main purpose of this test is to evaluate the system's compliance with the business requirements and verify if it has met the required criteria for delivery to end users.

6.2 Test Tools

The only test tools to be used are the standard AS/400 provided utilities and commands.

- **Jira:** Jira is a popular project management and issue tracking tool developed by Atlassian. It is used by software development teams to plan, track, and manage their work throughout the software development lifecycle.
- **Selenium Web driver:** Selenium Web driver is an open-source collection of APIs which is used for testing web applications. The Selenium Web driver tool is used for automating web application testing to verify that it works as expected or not. It mainly supports browsers like Firefox, Chrome, Safari and Internet Explorer. It also permits you to execute cross-browser testing.
- **Excel:** Excel is a great tool for creating timeline charts.

6.3 Meetings

The testing team will convene once a week to assess the current status of the project, pinpoint emerging issues and detect potential problems at an early stage. The testing team leader will also hold a biweekly meeting with the development team and project manager, scheduled for alternate weeks. In urgent cases, extra meetings may be arranged.

7. TEST CASES/TEST ITEMS

Test case for Login:

Project Name: Blog Management System		Test Designed by: Tanjib Rubyat Bristy		
Test Case ID: FR_1		Test Designed date: 22/04/2023		
Test Priority (Low, Medium, High): High		Test Executed by: Tanjib Rubyat Bristy		
Module Name: Login Session		Test Execution date: 23/04/2023		
Test Title: verify login with valid username and password				
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. Go to the website 2. Enter username 3. Enter password 4. Click submit	Username: Tanjib Bristy Password: Tanjib12345	User should login into the application	As expected,	Pass
Post Condition: User is validated with database and successfully login to account. The account session details are logged in the database.				

Test Case for Registration:

Project Name: Blog Management System		Test Designed by: Ridowan UI Alam		
Test Case ID: FR_2		Test Designed date: 23/04/2023		
Test Priority (Low, Medium, High): Medium		Test Executed by: Muvir Mohammad		
Module Name: Registration Session		Test Execution date: 23/04/2023		
Test Title: Register with valid username and password and all other criteria.				
Description: Test website registration page				
Precondition (If any): None				
Test Steps	Test Data	Expected Results	Actual Results	Status (Pass/Fail)
1. Go to the website. 2. Click Register button. 3. Enter name. 4. Enter email. 5. Enter date of birth 6. Enter gender. 7. Enter password. 8. Repeat password. 9. Click submit	Name: Muvir Mohammad Email: muvir@gmail.com Dob: 03-03-2000 Gender: Male Password: Muvir12345 Repeat password: Muvir12345	User should register himself/herself into the application.	As expected	Pass
Post Condition: User is validated with database and successfully registered an account. The account session details are stored in the database.				

Test case for create post:

Project Name: Blog Management System		Test Designed by: Ridowan UI Alam		
Test Case ID: FR_4		Test Designed date: 24/04/2023		
Test Priority (Low, Medium, High): Medium		Test Executed by: Tanjib Rubyat Bristy		
Module Name: Create Post Session		Test Execution date: 25/04/2023		
Test Title: Create post with title and details				
Description: Test website create post page				
Precondition (If any): User must have valid username and password				
Test Steps	Test Data	Expected Results	Actual Results	Status (Pass/Fail)
1. Go to the website. 2. Click Create Post. 3. Enter Title. 4. Enter Details. 5. Click submit	Title: What is Football? Details: Football is the most popular game in the world.	User should create a post into the application	As expected,	Pass
Post Condition: User is validated with database and successfully create a post.				

Test case for update profile:

Project Name: Blog Management System		Test Designed by: Muvir Mohammad		
Test Case ID: FR_3		Test Designed date: 24/04/2023		
Test Priority (Low, Medium, High): Medium		Test Executed by: Ridowan UI Alam		
Module Name: Profile Update Session		Test Execution date: 25/04/2023		
Test Title: Update user profile with valid username, email, date of birth, and gender.				
Description: Test website Profile Update page				
Precondition (If any): User must have valid username and password				
Test Steps	Test Data	Expected Results	Actual Results	Status (Pass/Fail)
1. Go to the website. 2. Click Update button. 3. Enter name. 4. Enter email. 5. Enter date of birth 6. Enter gender. 7. Click submit	Name: Ridowan Sajid12 Email: sajid@gmail.co Dob: 01-02-2003 Gender: Male	User should update his/her profile of the application	As expected,	Pass
Post Condition: User is validated with database and successfully update its profile.				

Test case for update post:

Project Name: Blog Management System		Test Designed by: Tanjib Rubyat Bristy		
Test Case ID: FR_5		Test Designed date: 24/04/2028		
Test Priority (Low, Medium, High): Medium		Test Executed by: Muvir Mohammad		
Module Name: Update Post Session		Test Execution date: 25/04/2023		
Test Title: Update post with title and details				
Description: Test website update post page				
Precondition (If any): User must have valid username and password				
Test Steps	Test Data	Expected Results	Actual Results	Status (Pass/Fail)
1. Go to the website. 2. Click Update Post. 3. Enter updated Title. 4. Enter updated Details. 5. Click submit	Title: What is Ja? Details: Java is a programming language.	User should update a post into the application	As expected,	Pass
Post Condition: User is validated with database and successfully update a post.				

8. ITEM PASS/FAIL CRITERIA

If a software module is designed to perform a particular function, the item pass/fail criteria will be based on whether the module performs that function as specified in the requirements. If the module meets the specified requirements, it will pass the test, but if it fails to meet the requirements, it will fail the test.

We executed six test cases and found that approximately 93% of them passed successfully. However, 7% of the test cases failed due to some database related issue. After resolving these issues, we re-executed the failed test cases and all of them passed successfully.

9. TEST DELIVERABLES

- Test plan: A document that outlines the testing approach, test cases, and schedules for testing.
- Test cases: Documents that describe individual test scenarios and the expected results. Such as unit testing, Integration testing, system testing, acceptance testing.
- Test scripts: Automated scripts that execute test cases.
- Test results: Reports that show the results of individual tests and overall testing progress.
- Defect reports: Documents that report defects or issues discovered during testing.
- Test summary reports: A document that summarizes the testing process and results, including pass/fail rates, defect counts, and testing metrics.
- Test environment setup documentation: A document that describes the configuration of the testing environment, including hardware, software, and network configurations.
- Test completion report: A document that describes the overall results of testing and provides a summary of the testing process, including any issues encountered and recommendations for future testing.

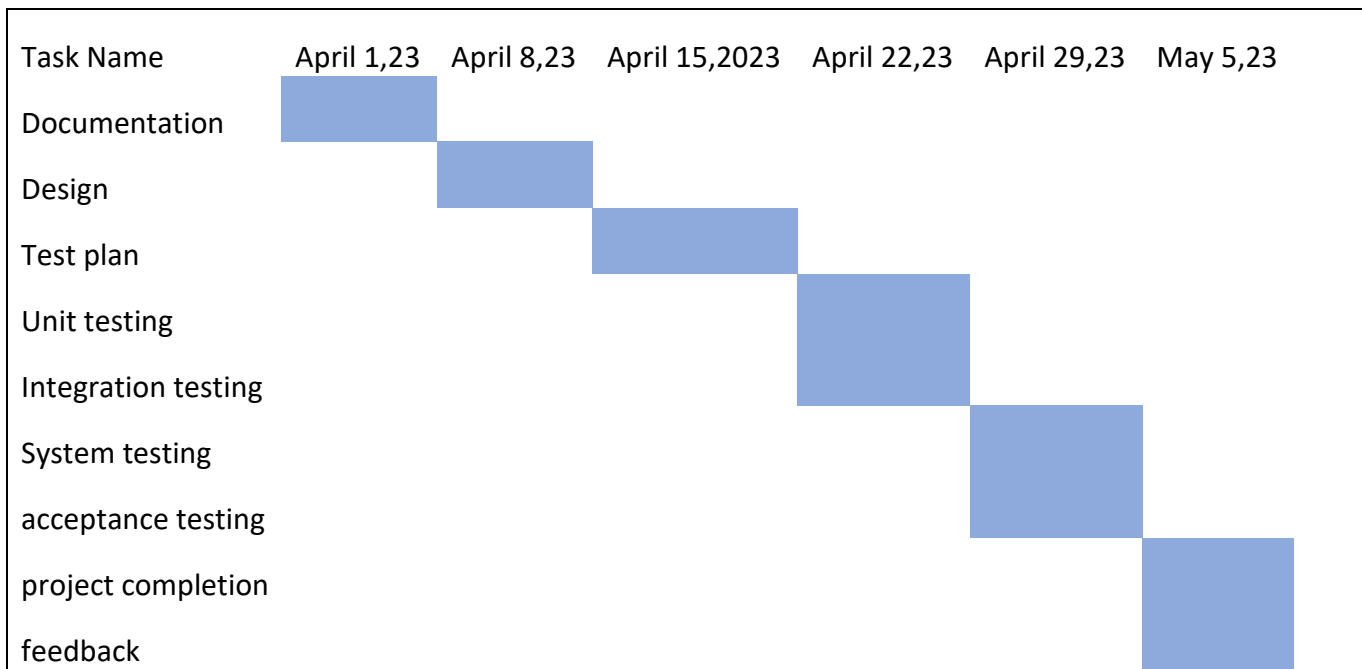
10. STAFFING AND TRAINING NEEDS

- Hiring additional staff: If the current team is not able to keep up with the testing workload, hiring additional staff may be necessary.
- Training existing staff: Providing training to existing staff can help improve their skills and efficiency in testing.
- Cross-training: Cross-training staff in different areas of testing can help ensure that there are no gaps in testing coverage and that testing can continue even if some team members are unavailable.
- Training on new technologies or tools: If new technologies or tools are being used in testing, staff may need training to learn how to use them effectively.

11. RESPONSIBILITIES

	TM	PM	Dev Team	Test Team	Client
Acceptance test Documentation & Execution	X	X		X	X
System/Integration test Documentation & Exec.	X		X	X	
Unit test documentation & execution	X		X	X	
System Design Reviews	X	X	X	X	X
Detail Design Reviews	X	X	X	X	
Test procedures and rules	X	X	X	X	
Screen & Report prototype reviews			X	X	X
Change Control and regression testing	X	X	X	X	X

12. TESTING SCHEDULE



13. PLANNING RISKS AND CONTINGENCIES

- Resource constraints: There may be a shortage of testing resources such as testing tools, infrastructure, or personnel. To mitigate this risk, the testing team can develop a contingency plan to prioritize testing activities, implement automation, or seek additional resources.
- Electricity issue: Because of load shedding our testing process may get delayed. We fully depend on electricity in our work. To mitigate the risk, we may need to use alternative electricity resources.
- Technical issues: Technical issues such as software compatibility, network failures, or system crashes can impact the testing process. To mitigate this risk, the testing team can develop a backup plan to recover data, establish redundant systems, or perform routine system backups.
- Changes in requirements: Changes in requirements can lead to a delay in the testing process or an impact on the quality of the testing. To mitigate this risk, the testing team

can implement a change management process to ensure that all stakeholders are informed of changes and adjust the testing approach accordingly.

- Communication breakdowns: Communication breakdowns between project stakeholders can lead to misunderstandings, delays, or errors in testing. To mitigate this risk, the testing team can establish regular communication channels, set clear expectations, and develop a contingency plan for addressing communication issues.

14. APPROVALS

Project Sponsor –	
Development Manager -	
EDI Project Manager -	
RS Test Manager -	
RS Development Team Manager -	
Reassigned Sales –	
Order Entry EDI Team Manager –	