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Department of Computer Science  
Faculty of Science &Technology (FST)  
Summer 23 24

Section: A  
Software Quality Assurance and Testing

Digital Document Artifacts Archive System

A Report submitted

By

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Date:

Software Test Plan

for

< Digital Document Artifacts Archive System >

Version 1.0 approved

Prepared by < TAHFIM IBN KHAN, MD. ATIK ULLAH KHAN, FATEMA AKTER, MST. MEFTAUL JANNAT >

<American International University-Bangladesh>

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# Revision History

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| Revision | Date | Updated by | Update Comments |
| 0.1 | 2024.09.17 | Tahfim Ibn Khan | First Draft |
| 0.2 | 2024.09.19 | MD. Atik Ullah Khan | Second Draft |
| 0.3 | 2024.09.21 | Fatema Akter | Third Draft |
| 0.4 | 2024.09.22 | Mst. Meftaul Jannat | Fourth Draft |
| 0.5 | 2024.09.23 | Fatema Akter | Fifth Draft |
| 0.6 | 2024.09.24 | Tahfim Ibn Khan | Sixth Draft |
| 0.7 | 2024.09.26 | Mst. Meftaul Jannat | Seven Draft |
| 0.8 | 2024.09.27 | MD. Atik Ullah Khan | Final Draft |

# TEST PLAN IDENTIFIER: Digital Document Artifacts Archive System RS-MTP01.3

# REFERENCES

* Software Requirement Specification (SRS) Document
* Software Testing and Quality Assurance – Theory and Practice - Kshirasagar Naik & Priyadarshi Tripathy
* <https://museumsofindia.gov.in/repository/home>
* https://core.tdar.org/

# INTRODUCTION

## Background to the Problem

Bangladesh, with its rich history and cultural heritage, holds an immense collection of artefacts that reflect its past. These artefacts, preserved in government organizations and in private collections, tell the story of the nation’s evolution through various periods, including ancient civilizations, colonial rule, and the liberation war. But Most of the time they cannot be accessed due to limited digital presence, and lack of organized systems for public access, limited digital presence, and lack of organized systems for public access.

The root cause of this problem is the lack of a centralized platform that can digitally connect the artefacts, their historical significance, and eager individuals wanting to explore this heritage. Government institutions and private collectors have traditionally maintained separate records and access to these items, limiting the ability to comprehensively understand Bangladesh's heritage. Additionally, without a structured system, owners of ancestral artefacts miss the opportunity to share their items with interested individuals.

This problem is critical because it hampers the preservation, appreciation, and dissemination of Bangladesh’s cultural heritage. Furthermore, establishing a platform that allows people to learn, research, and visit these artefacts fosters a deeper connection with the nation’s past and contributes to educational and tourism opportunities. By addressing this issue history will be protected.

## Solution to the Problem

To address the problem of limited access to Bangladesh's rich cultural and historical artefacts, I propose the development of a centralized online platform that serves as a digital repository for both government-collected artefacts and privately owned ancestral items of historical value.

A comprehensive platform that lists artefacts collected from various government organizations, providing information on their location, a brief description, and historical context. For detailed information, research materials, and in-depth history of any artefact, users will need to purchase a premium version. This approach helps monetize the platform while catering to a niche audience with more academic and educational interests.

The platform will also enable individuals with ancestral items of historical value to list their artefacts, allowing the public to view them online and schedule visits. A digital booking system will be in place where visitors can pay a viewing charge to meet the item’s owner and experience it in person. But this depends on the owner. This not only helps preserve private collections but also provides financial benefits to the owners.

# REQUEIREMNT SPECIFICATION

## System Feature

## Login

* 1. Enable users to securely access the system using their personal registered email and a password.
  2. In the login interface there will be two fields for input, one for email and another for password, and there will be a login button below along with a forget password button. And the login button must be clicked to login.
  3. A verification code will be sent to the user's email in case of a failed login attempt.
  4. A feature to temporarily restrict access for one hour after 5 unsuccessful login attempts will be there.

**Priority level:** High.

**Precondition:** Users must be registered with valid access information.

1. **Registration** 
   1. Users access the registration page through the registration button.
   2. Users input required information such as username, mobile number, email, and password into the designated fields on the registration form.
   3. The system checks the entered data to ensure it meets the required criteria, such as valid email format, password complexity, and completeness of all required fields.
   4. Email Verification: A verification email containing a unique activation link is sent to the email address provided during registration. Users are required to click on this link to activate their account and gain access to the platform.

**Priority level:** High.

**Precondition:** Must provide unique email address and maintained password Criteria to activate the account.

1. **Forget password** 
   1. The user clicks on the "Forget password" link or button on the login page.
   2. The system presents the user with various methods to identify themselves like email address: The most common option, where the user enters their registered email address.
   3. Once the user identifies themselves, the system sends a verification code or link to their chosen channel (email, phone).
   4. The user needs to enter the received code or click the link to proceed.
   5. After successful verification, the system offers a reset password field for resetting the password.
   6. Throughout the process, the system enforces security measures to prevent unauthorized password resets, restricts the number of attempts to prevent brute-force attacks, limits access to password reset attempts from specific IP addresses.

**Priority:** High.

**Precondition:** Users must have a registered email address associated with their account for password reset.

1. **Uploading a new artifact information** 
   1. Log in to the document management system with administrator credentials.
   2. Navigate to the "Upload" section of the system.
   3. Click on the "Upload" button.
   4. Select the document file from the local drive.
   5. Add necessary metadata such as title, description, category, and tags.
   6. Click on the "Upload" or "Save" button to upload the document to the system.

**Priority level:** High.

**Precondition:** Understanding how the system works, knowing how to upload files and manage.

1. **Listing an artifact information as an owner** 
   1. Log in to the document management system with user credentials.
   2. Navigate to the "Upload" section of the system.
   3. Click on the "Upload" button.
   4. Select the document file from the local drive.
   5. Add necessary metadata such as title, description, category, and tags.
   6. Click on the "Upload" or "Save" button to upload the document to the system.
   7. Then this request goes for approval by a team before listing on the system.

**Priority level:** High.

**Precondition:** Understanding how the system works, knowing how to upload files and manage their details, handling access permissions, organizing documents, creating content, following document management rules.

1. **Listing personal artifact request approval** 
   1. Listing personal artifact request will be sent to an approval committee.
   2. They will check all information and give approval for listing.
   3. Only admins with approval committee credentials can approve the contents.

**Priority level:** High.

**Precondition:** Needed a document storage system, enough information, and knowledgeable persons to verify these.

1. **Updating an Existing Content** 
   1. Log in to the document management system with administrator credentials.
   2. Navigate to the document that needs to be updated.
   3. Click on the "Edit" or "Update" option next to the document.
   4. Make necessary changes to the document or its metadata.
   5. Save the changes by clicking on the "Save" or "Update" button.

**Priority level:** High.

**Precondition:** Understanding how the system works, knowing how to update files and manage their details, handling access permissions, organizing documents, creating content, following document management rules.

1. **Notification** 
   1. Administrators can send notifications to users informing them of scheduled system updates, maintenance downtime, or any other relevant system-wide announcements.
   2. The button that allows administrators to send notifications to users could be labeled as "Send Notification" or something similar. This button would likely to be located within the administrator's interface for composing and sending notifications.
   3. Users receive a notification when a new document of their interest is uploaded or updated to the system. Users can customize their notification preferences based on their specific needs and preferences, choosing the types of notifications they want to receive and how they want to receive them (e.g., email, in-app notifications, mobile push notifications).

**Priority level:** Low.

**Precondition:** Availability of user authentication system and notification delivery channels.

1. **Payment to access premium feature** 
   1. In this system users can access full detailed information by payment only.
   2. The user searches for a specific artifact of their need. When they get the exact artifact, they cannot access all the information directly. First, they pay to get all the premium services.
   3. There will be a full access button with each content. Then when it is clicked, it will take you to the payment interface of the system if they are not already registered premium user.
   4. After a successful payment, they can access all the premium services.

**Priority level:** Medium.

**Precondition:** Need to be a valid user and have an online banking system.

1. **Dynamic search with image** 
   1. Users can upload an image directly or select one from their device.
   2. Optionally, they can combine the image search with additional keywords or filters for further refinement.
   3. The system extracts relevant features from the uploaded image, such as colors, textures, shapes, and objects using image recognition algorithms.
   4. The extracted image features are compared against a database of pre-processed image features associated with documents in the archive.
   5. Matching documents are identified based on similarity scores, prioritizing those with the most relevant visual elements.

**Priority level:** Low.

**Precondition:** Must have a clear image.

1. **Organization and Categorization**
   1. The Administration committee will exclusively handle these tasks.
   2. During the upload or editing process, the Administration committee will assign documents and artifacts to specific categories or folders.
   3. A section will be provided in the upload or editing interface for the committee to categorize the document by selecting the appropriate category from a predefined list. And at least one category must be selected. Only after the selection is filled, then they can be uploaded.
   4. The hierarchical structure for categories, including sub-categories, will be established, and maintained by the Administration committee to ensure efficient organization of documents and artifacts.
   5. There will be a Box for keywords related to the documents. And this will be a required field.
   6. The system will automatically update category and folder structures to reflect changes made by the Administration committee, ensuring that all documents and artifacts are accurately categorized and easily accessible.
   7. Enable users to search and filter documents and artifacts based on categories, keywords, or metadata.

**Priority:** Medium.

**Precondition:** Admin must be logged in and have appropriate permissions to create, edit, or delete categories and folders.

1. **Logout**
   1. After all the actions, a user can log out from the current account.

**Priority level:** High.

**Precondition:** Users must be registered and logged in with valid access information.

## System Quality Attributes

**Non-functional attributes:**  
The quality attributes can be viewed from two perspectives: the User perspective and the Developer perspective.

**User perspective:** These attributes are important to end users.

**Usability:** A user shall be able to search for an artefact from the catalogue and view basic information within an average of 2 minutes and a maximum of 4 minutes. And A trained admin user shall be able to add a new artefact to the system, including location, brief description, and images, in an average of 5 minutes and a maximum of 8 minutes. Furthermore, it should not take more than 5 minutes to register a new user and 2 minutes to login.

**Accessibility:** As it is a mobile based system, The system shall be accessed from everywhere.

**Performance:** The system shall load the homepage and display artefact search results within an average of 3 seconds and a maximum of 5 seconds under normal traffic conditions.

**Reliability:** The system should maintain 99.9% uptime and keep backup of data daily to prevent data loss in case of any system failure.

**Security:** All user transactions, especially premium membership purchases and visit booking payments, shall be processed securely using encrypted communication.

**Scalability:** The system shall be capable of handling up to 10,000 concurrent users searching for artefacts and accessing premium content without performance degradation.

**Data Integrity:** All the information must be stored in a database, properly to avoid data duplication or corruption during high-traffic events.

**Developer perspective:** Having these attributes helps developers in development.

**Maintainability:** The system shall follow modular architecture, enabling easy updates and maintenance of individual components.

**Flexibility:** It should be easy to add new features to the existing system.

**Testability:** The System must be simple to test and fix bugs.

**Interoperability:** The system shall integrate with existing payment gateways and email systems for membership subscriptions and visit bookings.

**Reusability:** The system functions shall be designed in such a way that it can be reasonable for any other system to use.

## System Interface

|  |  |
| --- | --- |
| Figure 1: Login Form | Figure 2: Registration form |
| Figure 3: Forget password email form | Figure 4: Forget password OTP form |
| Figure 5: Forget password new pass form | Inserting image...Figure 6: Home page with Menu |
| Figure 7: Upload artifact information | Figure 8: Artifact Page |
| Figure 9: Notification Button on the top right | Figure 10: Payment option |
| Figure 11: Dynamic search with image | Figure 12: Logout button at the bottom left |

## Project Requirements

Delivering the product on schedule, within budget, and with the required level of quality is our main objective in project management activities.

Time, Cost, Scope, Resources, and Environment are the key obstacles.

We must complete our work by the deadline, on schedule, and within our allocated budget. We must also add the necessary functionality to the system. We must maintain and effectively manage the necessary resources. If we appropriately manage each constraint, a nice result will be obtained.

* By 14 weeks, a practical answer ought to be available.
* The program should not consume more than 100 mb of storage after installation.
* Although developers prefer Visual Studio code, they can also use alternative editors.
* Git will be used for code management and version control systems.
* The source code will be kept on GitHub, where many developers will work together.
* Unit testing will be done with Selenium.
* Unit testing will be done with Selenium. Interactive prototyping will be performed using a Figma.
* The estimated cost of the project is 4,50,000 BDT.

### Time Estimation:

For creating prototype hours needed:100 hours.

For Developing Hours needed: 880 hours.

For revision hours needed: 80 hours

For testing & debugging hours needed:220 hours

Total working hour :1220 hours Daily working hour: 12 hours

Total days need:1220/12=101 days or 3.5 months or 14 weeks.

### Resources:

3 app developers, 3 software testers, 5 Custom Built PCs, 6 Android mobile smartphones, 5 LAN Connection.

### Language & Database:

Programming Language: Java, Dart. Mobile UI Framework: Flutter, Database: MySQL.

**Environment**: We need an environment to build this software. So, we can create an office space.

**Budget:** Total budget 4,50,000 BDT

Total Development Time **3.5** Months Or 14 Weeks.

# FEATURES NOT TO BE TESTED

**Private Artefact Owner Systems:** The system will allow private artefact owners to list and manage their historical items, but the testing of their personal systems (e.g., how they manage their own artefact records, including offline systems) is not within the scope of this project. The necessary guidelines and format for listing their artefacts will be provided, but it is their responsibility to ensure proper data entry and management.

**Customer-owned Visitor Systems:** While the system will provide a feature for scheduling visits to private collections, any tools or systems owned by the private artefact owners for managing on-site visits (e.g., ticketing systems, check-in procedures) will not be tested.

**Third-party Payment Gateways:** The platform will integrate with external payment gateways for booking fees and premium subscriptions. The functionality of these third-party payment systems (e.g., PayPal, Stripe) will not be tested by the team, as they are maintained and tested by the payment service providers themselves

# TESTING APPROACH

## Testing Levels

Our system testing phase will be partitioned into several steps. It starts with the Unit testing and ends with the Acceptance testing. There will be at least one full-time independent test person for system/integration testing. Most testing will be done by the test manager with the development teams’ participation.

1. **UNIT TESTING:** Unit Testing will be done by the developer and will be approved by the development team leader. Proof of unit testing (test case list, sample output, data printouts, defect information) must be provided by the programmer to the team leader before unit testing will be accepted and passed on to the test person. All unit test information will also be provided to the test person.
2. **INTEGRATION TEST**: The second level of testing is integration testing. the present level. The modules or features will be linked together one at a time. The leader of our development team will oversee this testing and determine if the data transmission between these modules is accurate. At this level, we will use strategies like the sandwich strategy, big bang approach, bottom-up integration, and top-down integration.
3. **SYSTEM TEST:** Our quality assurance team will carry out this testing level once the unit test and integration test have been completed. Our quality team will check the complete system against the customer's specification once our full program has been developed. These testing methods are known as black boxes. Various testing methods will have been used at this testing level. In addition to performing functional testing, our testing team also performs nonfunctional testing such as volume, load, and performance testing.
4. **ACCEPTANCE TESTING:** This testing will be performed by the actual end users with the assistance of the test manager and development team leader. The acceptance test will be done in parallel with the existing manual ZIP/FAX process for a period of one month after completion of the System/Integration test process.

## Test Tools

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

* The Program Development Manager (PDM) will be used as the source version configuration management tool in conjunction with the in-house check-in/check-out control utility. The check-in/out utility is part of each developer’s standard AS/400 access menu.
* The initial prototypes for the new screens will be developed using the AS/400 Screen Design Aid (SDA). The initial layout and general content of the screens will be shown to the sales administration staff prior to proceeding with testing and development of the screens.

## Meetings

Every week, the quality assurance team leader will set up a meeting to assess the progress being made on our application. We will also regularly perform code reviews and walk through the code to find errors and bugs as soon as possible. Each week our project manager will meet with our quality assurance team lead to go over the status of our project. Every two weeks, all staff members involved in the project will participate in the inspection section.

# TEST CASES/TEST ITEMS

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Project Name: Digital Document Artifacts Archive System | | | Test Designed by: Mst Meftaul Jannat | | |
| Test Case ID: FR\_1 | | | Test Designed date: 14 May,24 | | |
| Test Priority (Low, Medium, High): High | | | Test Executed by: Mst Meftaul Jannat | | |
| Module Name: Login Session | | | Test Execution date: 26 May 2024 | | |
| 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: madhu10  Password: m123 | User should properly login to their account | | As expected, | Pass |
| Post Condition: User is validated with database and successfully login to account. Now the user details will be kept in the local browser storage. | | | | | |

**Table 1: Test Case for Login**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Project Name: Digital Document Artifacts Archive System | | | Test Designed by: Mst Meftaul Jannat | | |
| Test Case ID: FR\_2 | | | Test Designed date: 15 May 2024 | | |
| Test Priority (Low, Medium, High): High | | | Test Executed by: Mst Meftaul Jannat | | |
| Module Name: Registration Session | | | Test Execution date: 26 May 2024 | | |
| Test Title: Register a new username and password | | | | | |
| Description: Test website registration page | | | | | |
| Precondition (If any): Must provide unique email address and maintained password Criteria to activate the account. | | | | | |
| Test Steps | Test Data | Expected Results | | Actual  Results | Status  (Pass/Fail) |
| 1. Go to the website 2. click the Registration button 3. Enter username 4. Enter password 5. system verification   Click submit | Username: madhu10  Password: m123  Email: madhu@gmail.com  Phone: 01756359462 | User should be properly registered and redirected to login page | | As expected, | Pass |
| Post Condition: The account is activated, allowing the user to log in and access the archive system functionalities. The account session details are logged into the database. | | | | | |

**Table 2: Test Case for Registration**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Project Name: Digital Document Artifacts Archive System | | | Test Designed by: Fatema Akter | | |
| Test Case ID: FR\_3 | | | Test Designed date: 15 May, 24 | | |
| Test Priority (Low, Medium, High): High | | | Test Executed by: Fatema Akter | | |
| Module Name: Password Reset Session | | | Test Execution date: 28 May, 24 | | |
| Test Title: Forget password | | | | | |
| Description: Test website password reset page | | | | | |
| Precondition (If any): Users must have a registered email address associated with their account for password reset. | | | | | |
| Test Steps | Test Data | Expected Results | | Actual  Results | Status  (Pass/Fail) |
| 1. Go to the website 2. click "Forget Password" on the login page. 3. Enter Email address. 4. A 6-digit code will be sent to the email. 5. Enter the code, then next 6. Enter new password and retype 7. Click submit | Email: [fatema123@gmail.com](mailto:fatema123@gmail.com)  Code: 606060  New password: 123456 | Old password should be changed. | | As expected, | Pass |
| Post Condition: User is validated with database and successfully reset password. The account can access the system again with their new password. | | | | | |

**Table 3: Test Case for forget password**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Project Name: Digital Document Artifacts Archive System | | | Test Designed by: Fatema Akter | | |
| Update Case ID: FR\_4 | | | Test Designed date: 15 May, 24 | | |
| Test Priority (Low, Medium, High): High | | | Test Executed by: Fatema Akter | | |
| Module Name: Upload Session | | | Test Execution date: 28 May, 24 | | |
| Test Title: Document artifact information Upload Process Test | | | | | |
| Description: Test website upload page | | | | | |
| Precondition (If any): Understanding how the system works, knowing how to upload files and manage their details, handling access permissions, organizing documents, creating content, following document management rules. And must have administrative credentials. | | | | | |
| Test Steps | Test Data | Expected Results | | Actual  Results | Status  (Pass/Fail) |
| 1. Go to the website. Click upload new content. 2. Log in with administrator credentials. 3. Click upload. 4. upload the content. 5. Then save. | Headline: Alpha  Information: Aplha 1,2,3  Image: alpha.png  Or  File: alpha.pdf | New content should be uploaded. And should be visible on the home page. | | As expected, | Pass |
| Post Condition: check the result that upload is successful done or not. | | | | | |

**Table 4: Test Case for uploading new content**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Project Name: Digital Document Artifacts Archive System | | | Update Designed by: Mst Meftaul Jannat | | |
| Update Case ID: FR\_5 | | | Update Designed date: 16 May, 24 | | |
| Test Priority (Low, Medium, High): High | | | Update Executed by: Mst Meftaul Jannat | | |
| Module Name: Upload Session | | | Update Execution date: 30 May, 24 | | |
| Test Title: Personally owned artifact Upload Process Test | | | | | |
| Description: Test website upload page | | | | | |
| Precondition (If any): Understanding how the system works, knowing how to upload files and manage their details, handling access permissions, organizing documents, creating content, following document management rules. | | | | | |
| Test Steps | Test Data | Expected Results | | Actual  Results | Status  (Pass/Fail) |
| 1. Go to the website. 2. Log in with administrator credentials. 3. Click upload. 4. upload the content. 5. Then save. | Headline: Alpha  Information: Aplha 1,2,3  Image: alpha.png  Or  File: alpha.pdf | A successfully request sent pop up alert will come. | | As Expected, | Pass |
| Post Condition: This information will be submitted to the document review committee. | | | | | |

**Table 5: Test Case for uploading personally owned artifact**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Project Name: Digital Document Artifacts Archive System | | | Test Designed by: Tahfim Ibn Khan | | |
| Test Case ID: FR\_6 | | | Test Designed date: 17 May, 2024 | | |
| Test Priority (Low, Medium, High): High | | | Test Executed by: Tahfim Ibn Khan | | |
| Module Name: Personally owned document, artifact Approval | | | Test Execution date: 31 May, 2024 | | |
| Test Title: Verify Document artifact Approval Process | | | | | |
| Description: Test the document approval process and approved by the management's special committee, and only admins with approval committee credentials can approve the contents. | | | | | |
| Precondition (If any): User must have valid approval committee credentials | | | | | |
| Test Steps | Test Data | Expected Results | | Actual  Results | Status  (Pass/Fail) |
| 1. Requested information, picture, files etc. Are sent to this committee. 2. Log in as an admin with approval committee credentials. 3. Review and approve/reject submitted content. 4. Verify only approved content is accessible to users. | N/A | Submitted content is reviewed and approved/rejected by the approval committee. Only approved content is accessible to users. | | As expected, | pass |
| Post Condition: If approved a congratulations notification will be sent to the user and visible on the home page. Else an unsuccessful notification will be sent to the owner. | | | | | |

**Table 6: Test Case for approval**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Project Name: Digital Document Artifacts Archive System | | | Update Designed by: MD. Atik Ullah Khan | | |
| Update Case ID: FR\_7 | | | Update Designed date: 18 May, 2024 | | |
| Test Priority (Low, Medium, High): High | | | Update Executed by: MD. Atik Ullah Khan | | |
| Module Name: Document, Artifact Management System Update Functionality. | | | Update Execution date: 1 Aug, 2024 | | |
| Test Title: Update Process Test | | | | | |
| Description: Test login, navigation, editing, and saving changes with admin credentials, ensuring adherence to document management rules, access permissions, and document organization. | | | | | |
| Precondition (If any):Understanding how the system works, knowing how to update files and manage their details, handling access permissions, organizing documents, creating content, following document management rules. | | | | | |
| Test Steps | Test Data | Expected Results | | Actual  Results | Status  (Pass/Fail) |
| 1. Go to the website. 2. Log in with administrator credentials. 3. Click edit or update for update. 4. Make update the content. 5. Then save the update. | Headline: Gemma | Administration can successfully update existing content. | | As expected, | Pass |
| Post Condition: check the result that update is successful done or not. | | | | | |

**Table 7: Test Case for update**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Project Name: Digital Document Artifacts Archive System | | | Test Designed by: MD. Atik Ullah Khan | | |
| Update Case ID: FR\_8 | | | Test Designed date: 19 May, 2024 | | |
| Test Priority (Low, Medium, High): Low | | | Test Executed by: MD. Atik Ullah Khan | | |
| Module Name: Notification System | | | Test Execution date: 2 Aug, 2024 | | |
| Test Title: Notification Preferences Customization and Delivery | | | | | |
| Description: Test the functionality of administrators sending system-wide notifications and users customizing their notification preferences and receiving notifications based on their interests. | | | | | |
| Precondition (If any): Availability of user authentication system and notification delivery channels. | | | | | |
| Test Steps | Test Data | Expected Results | | Actual Results | Status (Pass/Fail) |
| 1. Admin sends system notifications (message, recipients). 2. Users manage notification preferences and receive updates based on those preferences. 3. Admin uploads documents, system notifies users based on preferences. | Message: It is a dummy notification message. | Admins can send updates to users and customize how users receive them. | | As expected, | Pass |
| Post Condition: N/A | | | | | |

**Table 8: Test Case for notifications**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Project Name:Digital Document Artifacts Archive System | | | Test Designed by: Fatema Akter | | |
| Test Case ID: FR\_9 | | | Test Designed date: 20 May, 2024 | | |
| Test Priority (Low, Medium, High): High | | | Test Executed by: Fatema Akter | | |
| Module Name: Payment | | | Test Execution date: 3 Aug, 2024 | | |
| Test Title: Verify payment process for accessing documents | | | | | |
| Description: Test the payment process for accessing premium features on the website. | | | | | |
| Precondition (If any): User must have valid username and password, and users must possess valid registration with an online payment system. | | | | | |
| Test Steps | Test Data | Expected Results | | Actual Results | Status (Pass/Fail) |
| 1. Go to the website 2. Login with a valid username and password. 3. Go to the premium feature option and click on the full access button. 4. Enter payment details. 5. Verify document access | Username: soumik  Password:12S@  Document name or ID: Document123    Payment information:  Credit Card:  Card Number: 1234 567890123456  Expiry Date: 2/25  CVV: 223 | The user successfully logs in, accesses the document after payment, and the document is added to their content list. | | As  expected | Pass |
| Post Condition: Premium features are successfully accessed and added to the user. | | | | | |

**Table 9: Test Case for payment**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Project Name:Digital Document Artifacts Archive System. | | | Test Designed by: Tahfim Ibn Khan | | |
| Test Case ID: FR\_10 | | | Test Designed date: 23 May, 2024 | | |
| Test Priority (Low, Medium, High): High. | | | Test Executed by: Tahfim Ibn Khan | | |
| Module Name: Search. | | | Test Execution date: 5 Aug, 2024 | | |
| Test Title: Verify dynamic search with image functionality. | | | | | |
| Description: Test the functionality of searching for documents using uploaded images and filters. | | | | | |
| Precondition (If any): The image must be clear. | | | | | |
| Test Steps | Test Data | Expected Results | | Actual Results | Status (Pass/Fail) |
| 1. Access the search field. 2. Upload an image or select from the device. 3. Start searching. 4. Verify relevant documents are displayed. 5. Confirm documents match image features. 6. You can also add filters from the list | Uploaded image: Clear and relevant image file | Relevant documents displayed.  Documents match image features. | | As expected, | Pass |
| Post Condition: Dynamic image search functionality successfully tested, ensuring it is ready for user use. | | | | | |

**Table 10: Test Case for search**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Project Name:Digital Document Artifacts Archive System | | | Test Designed by: MD. Atik Ullah Khan | | |
| Test Case ID: FR\_11 | | | Test Designed date: 25 May, 2024 | | |
| Test Priority (Low, Medium, High): Medium | | | Test Executed by: MD. Atik Ullah Khan | | |
| Module Name: Organization and Categorization | | | Test Execution date: 10 Aug, 2024 | | |
| Test Title: Verify administration tasks for organization and categorization | | | | | |
| Description: Test the functionality related to organization and categorization of documents and artifacts by the administration. | | | | | |
| Precondition (If any): Admin must be logged in and have appropriate permissions to create, edit, or delete categories and folders. | | | | | |
| Test Steps | Test Data | Expected Results | | Actual Results | Status (Pass/Fail) |
| 1. Log in as an admin. 2. Access the document management section. 3. Create a new category/folder. 4. Assign documents, artifacts to the new category/folder. 5. Edit document's category/folder 6. Ensure at least one category selected during upload/editing. 7. Check for sub-categories within categories. 8. Try to delete a category/folder. | N/A | Admin manages categories; system updates ensure accuracy. Users easily find contents. | | As expected, | Pass |
| Post Condition: Admin successfully manages document organization and categorization. | | | | | |

**Table 11: Test Case for Organization and Categorization**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Project Name: Digital Document Artifacts Archive System | | | Test Designed by: Tahfim Ibn Khan | | |
| Test Case ID: FR\_12 | | | Test Designed date: 27 May, 2024 | | |
| Test Priority (Low, Medium, High): Medium | | | Test Executed by: Tahfim Ibn Khan | | |
| Module Name: Logout Session | | | Test Execution date: 19 Aug, 2024 | | |
| Test Title: Logout | | | | | |
| Description: Test website homepage. | | | | | |
| Precondition (If any): Users must be logged. | | | | | |
| Test Steps | Test Data | Expected Results | | Actual Results | Status  (Pass/Fail) |
| 1. Go to the website 2. Go to menu 3. Click logout button and submit | N/A | The user should be logged out and redirected to login page again. | | As expected, | Pass |
| Post Condition: User information at the browser local storage must be cleared. | | | | | |

**Table 12: Test Case for logout**

# ITEM PASS/FAIL CRITERIA

A method will be used to determine whether a test case item passes or fails. Recommendations will be made after all test cases have been successfully completed. The team leader will make these decisions based on the results of the trial. The software framework cannot be removed until all bugs are fixed. When the final program is released, there will always be some bugs in the system. The test leader and project manager will therefore make the decision on whether to release the program and which test numbers will pass. It is the test lead and project manager's responsibility. If 98% of the test cases are successfully completed during the test session, then we will go for releasing the software.

# TEST DELIVERABLES

Test Deliverables are documents given to stakeholders when the software is being developed. It contains a list of documents, tools, and other equipment that must be created, provided, and maintained to support testing activities in a project.

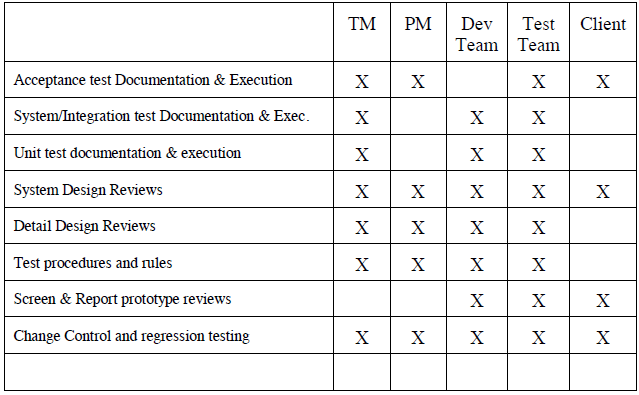
1. First, an acceptance test plan, which functions as a contract between our project and the creators of the project to be published.
2. Then we will need a system integration strategy. Because system integration is described as a process, we may utilize it to connect various computer systems or software applications to a single, bigger system, allowing each solution to work functionally together.
3. In the unit test strategy part, we must assess the system that will be tested.
4. Screen prototypes are made up of many papers. That single prototype is a redesigned Iterative Prototyping. Iterative prototyping entails developing a prototype based on the product design, evaluating it for usability and functioning, and then modifying what did not work. Following the completion of testing, the research team will develop and produce a fresh version for testing.
5. Mockup reports provide a framework for entering and copying graphics, as well as the opportunity to experiment with different formats of charts, graphs, and illustrations and arrange them in such a way that the reader does not have to switch back and forth in the report to match a copy of the exemplary artwork.
6. Here are discussed the design goals, high-level system decomposition, concurrency identification, hardware and software platforms, acceptance test plan, system integration plan, screen prototypes, software control implementation, and report mockups. Incident reports are critical for employee safety and developing best practices in the workplace. Proper incident documentation contributes to the success of a project. We created a report and a complete explanation of our project in our project. A test manual that details the unit and system tests performed on the system prior to delivery, as well as the expected results.
7. The test log records events that occurred during a test run or planned run, as well as the status of each checkpoint. In our project, we updated each checkpoint and collected data on our activities and methods. An employee turnover report is a summary of the number of dismissed workers among current employees in a company. It is the monthly analysis report, which is generated monthly, and the average for the year is determined. As a result, it is critical to our initiatives and plays a vital role.

# STAFFING AND TRAINING NEEDS

It is advised that this project have at least one full inspector due to the structure and stages of project distribution. For the assessment, the person will need to be given some time at the beginning of the project, and then, roughly six months later, they will need to be provided full-time. The project/test manager will take over if a different tester is not available. To include a thorough and pertinent study, the following preparation-related topics should be considered. The personnel for this project have long been planned. Most of the group will participate in particular research tasks, which are covered in greater depth in the section on responsibilities.

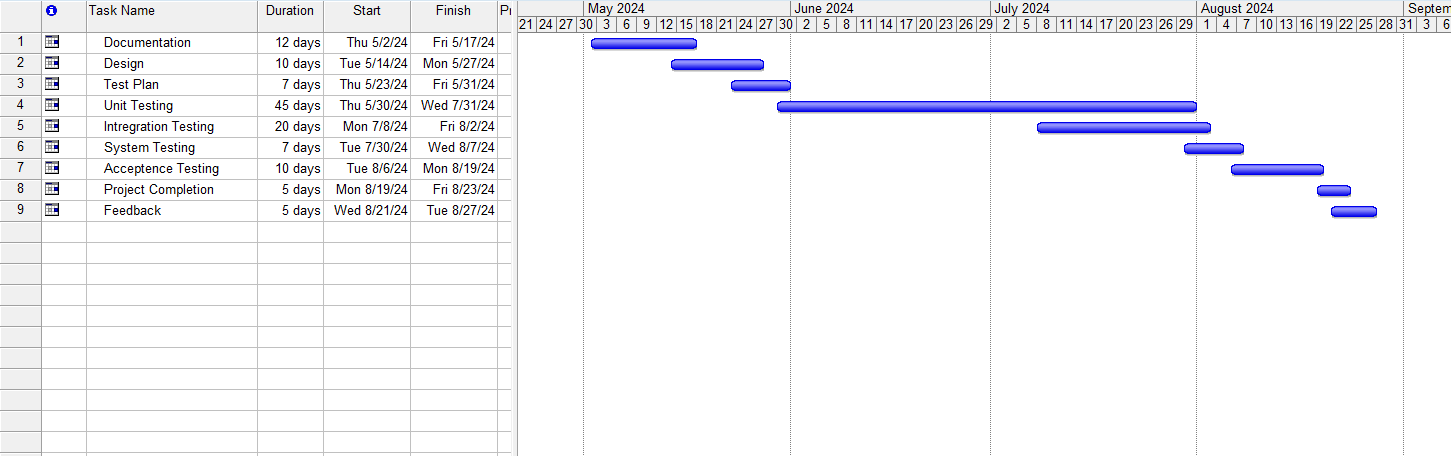
* The developers and testers will need to be taught Java, Dart, Flutter, and MySQL.
* Automation testers should gain proper knowledge and experience to operate the tools.

# RESPONSIBILITIES



# TESTING SCHEDULE

The following testing activities are listed in the project plan. The project plan timetable contains a list of the exact dates and hours for each activity. A list of the people needed for each step is also included in the project schedule and plan. The project manager, in collaboration with the development and test team leaders, will organize the management, customer, test team, and development team employees required for each assignment. This time scheduling was made by Microsoft Office Project software.



# PLANNING RISKS AND CONTINGENCIES

**Risks Planning**

Technical, programmatic, and process risks are identified and categorized as part of software risk management, which then forms the basis of the plan that connects each to a mitigation approach. Throughout the project, the project manager keeps an eye on risk. If any do, a particular owner takes a mitigates step.

* **Lack of encrypted data:** keep an eye on security and back up the data with highly encrypted
* **Attempt unauthorized access:** Consecutively three failed login attempts are an hour, the user will be restricted.
* **Error in Functionalities:** Regularly test the application and make a daily backup.
* **Wrong SQL Command for Sensitive Data:** Keep security scans and backups to data.

**Contingency Planning**

A contingency plan in project management is defined, actionable plan that is to be enacted if an identified risk becomes a reality. It is a “Plan B,” to be put in place when go differently the expected.

* **Power outages:** We can face the load shedding, that is why we need to always prepare a backup power source.
* **Network Failure:** We will install two fiber optics connections from the different ISP as if one will be working as back up of another.

# APROVALS

