Progressive Education Society's

# Modern College of Engineering

MCA Department A.Y. 2024-25

# Subject Code: 410907: Computer Laboratory Part A: Software Testing and Quality Assurance

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Name: Laxman Santosh Shinde Assignment No: 01 Date of Implementation: 01/09/2024

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1. **Prepare Test plan for Online shopping system using MS word.**

Modern College of Engineering

System Test Plan Document version: 3.0

|  |  |
| --- | --- |
| Project Name | Online Shopping System |
| Product Name | Digital Marketplace |
| Product Release Version | 4.1 |

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# Online Shopping System (OSS)

## Test Plan ID

TPI\_MCOE\_2024\_OSS

## Introduction

The **Online Shopping System (OSS)** is an e-commerce platform that enables customers to purchase products and services online. This system will allow users to browse products, add items to a cart, and make secure payments. The test plan defines the testing approach and strategy to ensure the system meets all functional and non-functional requirements.

## Objectives

To outline the test process for ensuring the **OSS** meets customer expectations for usability, performance, security, and reliability.

## References

* + - OSS Requirements Document, Version 2.4
    - OSS Design Document, Version 2.4
    - Project Plan: OSS\_24
    - Master Test Plan: OSS\_TP\_2024

## Test Items

* + - Login functionality
    - Search functionality
    - Add to cart functionality
    - Checkout and payment processing
    - Order confirmation
    - User profile management
    - Product reviews and recommendations

## Features to be Tested

* + - User registration and login
    - Product browsing and search
    - Shopping cart management
    - Secure checkout process
    - Payment method integration (excluding third-party gateways)
    - Product reviews and ratings
    - Order tracking

## Features Not to be Tested

* + - Integration with external payment gateways (e.g., PayPal, Stripe)
    - External API services for logistics
    - Third-party vendor management modules

## Approach

A combination of **manual** and **automated** testing will be used. The following types of testing will be performed:

* + - **Functional Testing**: Verifying the features such as login, search, and cart functionality.
    - **Compatibility Testing**: Testing across different browsers (Chrome, Firefox, Safari) and devices (desktop, mobile).
    - **Performance Testing**: Evaluating system response time under varying loads.
    - **Security Testing**: Ensuring user data, payment information, and access controls are secure.
    - **Usability Testing**: Ensuring an intuitive user interface and seamless user experience.
    - **Regression Testing**: Ensuring that new updates don’t impact existing functionality.

## Pass/Fail Criteria

A test case is considered passed if it meets expected results as defined in the **requirements document**. The severity of defects is classified from 1 to 4, with 1 being critical and 4 being minor. Tests will pass if only minor issues (level 3 or 4) are found.

## Suspension & Resumption Criteria

Testing will be suspended if:

* + - A critical defect that blocks further testing is discovered.
    - The test environment is unstable. Testing will resume once these issues are resolved.

## Test Deliverables

* + - Test cases
    - Test scripts (for automation)
    - Defect reports
    - Test execution reports
    - Final test summary report

## Testing Tasks

* + - Design and document test cases.
    - Prepare test data.
    - Set up test environments.
    - Execute test cases and document results.
    - Log and track defects.
    - Perform regression testing.
    - Prepare test summary reports.

## Environmental Needs

* + - Multiple operating systems: Windows, macOS, iOS, Android.
    - Browsers: Chrome, Firefox, Safari, Edge.
    - Database server: MySQL or PostgreSQL.
    - Web server: Apache or Nginx.

## Staffing & Training Needs

No additional training is required; staff are experienced in e-commerce systems and test automation tools.

## Schedule

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Task** | **Responsibility** | **Department** | **Start Date** | **End Date** |
| Test case design and documentation | Laxman Shinde | Testing Team | 18/09/2024 | 20/09/2024 |
| Test environment setup | Vaishnavi Sakhre | Development Team | 20/09/2024 | 23/09/2024 |
| Test execution and defect reporting | Akhilesh Shinde | Testing Team | 23/09/2024 | 28/09/2024 |
| Test summary and reporting | Laxman Shinde | Project Manager | 30/09/2024 | 01/10/2024 |

* 1. **Risks & Contingencies**
     + **Risk**: Delays in development affecting the test schedule.
       - **Contingency**: Adjust the testing timeline.
     + **Risk**: High-priority defects requiring immediate fixes.
       - **Contingency**: Allocate additional resources for quick resolution.

## Approval

* + - **Test Manager : Laxman Shinde**

**Date**: 15/09/2024

**Signature**:

* + - **Quality Assurance Manager :** Raj Malhotra

**Date**: 19/09/2024

**Signature**:

* + - **Project Manager : Laxman Shinde**

**Date**: 29/09/2024

**Signature**:

1. **Prepare test plan for an identified Mobile Application- Banking App.**

Modern College of Engineering

System Test Plan Document version: 4.0

|  |  |
| --- | --- |
| Project Name | Mobile Application- Banking App |
| Product Name | Digital Banking |
| Product Release Version | 3.1 |

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# Mobile Banking Application (MBA)

## Test Plan ID

TPI\_MBA\_2024

## Introduction

The **Mobile Banking Application (MBA)** allows users to perform banking operations such as money transfers, bill payments, and account management via smartphones. This test plan outlines the strategy to ensure the application’s functionality, security, and performance.

## Objectives

To ensure the MBA meets its functional and security requirements for user transactions, account management, and secure login.

## References

* + - MBA Requirements Document, Version 1.5
    - MBA Design Document, Version 1.5

## Test Items

* + - **User login**

## Fund transfers

* + - **Bill payments**

## Account balance inquiries

* + - **Transaction history**

## Profile management

* 1. **Features to be Tested**
     + Secure login and authentication
     + Fund transfer between accounts
     + Bill payment functionality
     + Viewing account details and transaction history

## Features Not to be Tested

* + - Integration with external payment gateways (e.g., UPI, PayPal)

## Approach

Testing includes:

* + - **Functional Testing**: Ensuring app features work as expected.
    - **Compatibility Testing**: Testing across multiple devices and OS versions.
    - **Security Testing**: Ensuring data protection and secure transactions.
    - **Performance Testing**: Evaluating response times under peak load.

## Pass/Fail Criteria

Tests will pass if critical functionality (login, transfers) works without defects; minor issues will be recorded.

## Suspension & Resumption Criteria

Testing will be suspended for critical app crashes or blocked functionalities and resumed once issues are fixed.

## Test Deliverables

* + - Test cases
    - Defect reports
    - Test execution report
    - Summary report

## Testing Tasks

* + - Test case creation and documentation
    - Test execution and defect logging
    - Retesting after defect fixes

## Environmental Needs

* + - Devices: iOS, Android smartphones
    - Test network connectivity: 3G/4G/Wi-Fi

## Staffing & Training

No additional training is required; the testing team is experienced in mobile app testing.

## Schedule

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Task** | **Responsibility** | **Designation** | **Start Date** | **End Date** |
| Test case design | Vaishnavi Sakhre | Testing Team | 10/09/2024 | 12/09/2024 |
| Test execution | Akhilesh Shinde | Testing Team | 13/09/2024 | 17/09/2024 |
| Test reporting | Purva Bhosale | Project Manager | 18/09/2024 | 20/09/2024 |

* 1. **Risks & Contingencies**
     + **Risk**: App crashes on certain devices.
       - **Contingency**: Perform device-specific bug fixes.

## Approval

* + - **Test Manager : Akhilesh Shinde**

**Date**: 12/09/2024

**Signature**:

* + - **Project Manager : Laxman Shinde**

**Date**: 29/09/2024

**Signature**:

## Create manual Test cases for Online Shopping system using Excel.

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**Manual Test Cases for Electronics Category in Online Shopping System**

|  |  |
| --- | --- |
| **Project Name** | Online Shopping System |
| **Test Case ID** | OSS\_E |
| **Test Priority (Low, Medium, High)** | High |
| **Module Name** | Electronic Category |
| **Test Title** | Electronic Category Functionality Testing |
| **Description** | This test case set focuses on verifying the functionality of the Smart Tvs under "Electronics" category within the online shopping system. |

|  |  |
| --- | --- |
| **Test Designed by** | Laxman Shinde |
| **Test Designed Date** | 1st September 2024 |
| **Test Executed by** | QA Team |
| **Test Execution Date** | 5th September 2024 |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Test Case ID** | **Test Case** | **Procedure** | **Expected Result** | **Actual Result** | **Remark/ Status** | **Screenshots** |
| OSS\_E\_1 | View TV under Electronics Category | 1. Go to the homepage | All Television products are listed successfully. | As expected | Pass |  |
| 2. Click on the "Electronics" category |
| * Verify all electronics products are listed * Go to Television DropDown |
| OSS\_E\_2 | Filter by Price | 1. Go to Electronics category 2. Go in Television category | Products within the specified price range are displayed. | As expected | Pass |  |
| 2. Apply a filter for price range (e.g., Rs.20000 - 25000) |
| 3. Observe the filtered results |
| OSS\_E\_3 | Filter by Brand | 1. Go to Electronics category 2. Go to television section | Only products from the selected brand are displayed. | As expected | Pass |  |
| 2. Apply a filter for a specific brand (e.g., boAt) |
| 3. Observe the filtered results |
| OSS\_E\_4 | Show price by discount | 1. Go to Electronics category 2. Go under television category | Products are sorted from the lowest to highest price. | Incorrect sorting | Fail | No results |
| 1. Sort products by   “ Discounts ” |
| 3. Verify products are listed in ascending order of price |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| OSS\_E\_5 | Add to Cart from Television Category | 1. Go to Television  category | Product is successfully added to the cart. | As expected | Pass |  |
| 2. Select a product |
| 3. Click "Add to Cart" |
| 4. Verify the product is added to the cart |
| OSS\_E\_6 | Check Stock Availability | 1. Go to television  category | The stock availability is displayed correctly. | No stock info | Fail |  |
| 2. Select a product |
| 3. Check if "In Stock" is  displayed |
| OSS\_E\_7 | View Product Details | 1. Go to Television  category | Product details are displayed properly. | As expected | Pass |  |
| 2. Select a product |
| 3. Click to view detailed product information (e.g.,  description, specifications, reviews) |
| OSS\_E\_8 | Compare Products | 1. Go to Television  category | Comparison view of selected products is displayed. | As expected | Pass |  |
| 2. Select two or more  products |
| 3. Click "Compare" |
| OSS\_E\_9 | Purchase Electronic Product | 1. Go to Television  category | Purchase is successfully completed. | As expected | Pass |  |
| 2. Select a product |
| 3. Add to cart |
| 4. Proceed to checkout |
| 5. Complete purchase  process |
| OSS\_E\_1 0 | Write Review for Product | 1. Go to Television  category | User is able to submit the review, and it is posted successfully. | Review not submitted | Fail | Amazon could not accept my review and not allowing to edit it and instead  suspended to review that product I purchased. Is it legal? : r/amazonprime |
| 2. Select a product |
| 3. Scroll to "Write a  Review" |
| 4. Write and submit a  review |

1. **Create manual Test cases for Mobile Application – Banking App using Excel.**

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**Manual Test Cases for Mobile Banking App**

|  |  |
| --- | --- |
| **Project Name** | Mobile Banking Application |
| **Test Case ID** | MBA\_1 to MBA\_10 |
| **Test Priority (Low, Medium, High)** | High |
| **Module Name** | User Login and Transactions |
| **Test Title** | Mobile Banking Functionality Testing |
| **Description** | This test case set focuses on verifying key functionalities of the YONO mobile banking app, such as login, fund  transfers, profile management, and logout. |

|  |  |
| --- | --- |
| **Test Designed by** | Laxman Shinde |
| **Test Designed Date** | 15th August 2024 |
| **Test Executed by** | QA Team |
| **Test Execution Date** | 20th August 2024 |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Test Case ID** | **Test Case** | **Procedure** | **Expected Result** | **Actual Result** | **Remark/ Status** | **Screenshots** |
| MBA\_1 | Valid Login | 1. Open YONO App | User is successfully logged in to their  account. | As expected | Pass |  |
| 2. Enter valid user ID |
| 3. Enter valid password/MPIN |
| 4. Click "Login" |
| MBA \_2 | Invalid Login | 1. Open App | Error message "Invalid credentials" is displayed. | No error displayed | Fail |  |
| 2. Enter invalid user ID or password/MPIN |
| 3. Click "Login" |
| MBA \_3 | OTP  Verification for Login | 1. After entering credentials, system sends OTP | User is logged in successfully after OTP verification. | OTP not received | Fail | SBI YONO OTP Not Received Solution | OTP नहीं आ रहा है | SBI YONO Not  Received Problem Solution - YouTube |
| 2. Enter OTP in the provided field |
| 3. Complete login process |
| MBA \_4 | Balance Check | 1. Login to YONO | Account balance is displayed correctly. | As expected | Pass | SBI PPF अकाउंट का Balance ऑनलाइन कैसे पता करें? Yono App और नेटबैंकिंग से »  PlanMoneyTax |
| 2. Navigate to "Account Balance" section |
| 3. Verify balance is displayed |
| MBA \_5 | Fund Transfer - Same Bank | 1. Login to YONO | Funds are transferred successfully  . | Transfer failed | Fail | Chandan Sharma on X: "@TheOfficialSBI Every time I try to perform  transaction (funds transfer) after 11 pm it fails but I am able to do it  next morning.Your services are not available |
| 2. Navigate to "Fund Transfer" section |
| 3. Select account |
| 4. Enter transfer details |
| 5. Complete transaction |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| MBA \_6 | Fund Transfer - Other Bank | 1. Login to YONO | Funds are transferred successfully to the non- SBI  account. | As expected | Pass | 4 Ways To Check SBI Account Transaction History Online - BankingIdea.org |
| 2. Navigate to "Fund  Transfer" section |
| 3. Select other bank |
| 4. Enter transfer details |
| 5. Complete transaction |
| MBA \_7 | Add Beneficiary | 1. Login to YONO | Beneficiary is added successfully  . | As expected | Pass | How To Add Beneficiary Account on YONO SBI App - Step by Step Guide |
| 2. Navigate to "Manage  Beneficiaries" |
| 3. Add a new beneficiary by  entering account details |
| 4. Verify beneficiary addition  success |
| MBA \_8 | Bill Payment | 1. Login to YONO | Bill payment is processed successfully  . | Payment failed | Fail |  |
| 2. Navigate to "Bill  Payments" |
| 3. Select the utility (e.g.,  electricity) |
| 4. Enter bill details and  complete payment |
| MBA \_9 | Logout Functionalit y | 1. After completing tasks, click on "Logout" option | User is logged out successfully and is returned to the login  screen. | As expected | Pass |  |
| MBA\_10 | Profile Password Change | 1. Login to YONO | Password is successfully updated. | As expected | Pass | How to Reset / Change Profile Password in SBI YONO | How To हिंदी |
| 2. Navigate to "Profile  Settings" |
| 3. Select "Change Password" |
| 4. Enter old password, then new password |
| 5. Complete change process |