**EXERCISE NUMBER:12 REGISTER NUMBER:RA2111026050026**

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| **DATE** |  |
| **SUBMITTED BY** | **VISHNUPRIYAN S** |
| **TITLE / ROLE** | **Online Voting System** |

**MASTER TEST PLAN:**

**Objectives:**

The objectives of testing the Online Voting System are as follows:

To ensure that the system is reliable, accurate, and secure

To validate that the system meets all functional and non-functional requirements

To identify defects and issues in the system and ensure that they are resolved before the system is deployed

To ensure that the system is user-friendly and easy to use

To ensure that the system is scalable and can handle a large number of users and votes

To ensure that the system is compliant with all relevant laws and regulations

**Test Scope:**

The following components of the Online Voting System will be tested:

User registration and login

Candidate registration and management

Voting process and vote counting

Results display and reporting

Security and data privacy measures

User interface and user experience

**Test Approach:**

The testing approach for the Online Voting System will be as follows:

Black box testing: Testing the functionality of the system without knowledge of the internal workings of the system.

White box testing: Testing the internal workings of the system and verifying that the code works as expected.

Integration testing: Testing the interactions between the various components of the system to ensure they work correctly.

System testing: Testing the system as a whole to ensure it meets all requirements and works as intended.

Security testing: Testing the system's security measures to ensure that they are effective and protect user data.

Performance testing: Testing the system's performance under various load conditions to ensure that it is scalable and can handle a large number of users and votes.

**Test Environment:**

The test environment for the Online Voting System will be as follows:

Operating system: Windows 10, macOS, and Linux

Browsers: Chrome, Firefox, Safari, and Edge

Devices: Desktops, laptops, and mobile devices

Testing tools: Selenium, JMeter, OWASP ZAP, and Burp Suite

**Test Schedule:**

The testing schedule for the Online Voting System will be as follows:

Test planning: 1 week

Test case development: 2 weeks

Test execution: 4 weeks

Defect management: Ongoing

**Roles and Responsibilities:**

The following roles and responsibilities will be assigned for testing the Online Voting System:

Test Manager: Overall responsibility for managing the testing process and ensuring that it is carried out effectively.

Test Lead: Responsible for coordinating the testing activities and ensuring that they are carried out according to the plan.

Test Analyst: Responsible for developing test cases and executing tests.

Security Tester: Responsible for testing the security measures of the system.

Performance Tester: Responsible for testing the performance of the system under various load conditions.

Developers: Responsible for fixing defects and issues identified during testing.

**RISK MANAGEMENT:**

Risk management is a critical component of any software development project, and an online voting system is no exception. The following are some risks that should be considered in the development and implementation of an online voting system, along with their corresponding acceptance criteria, exit criteria, and approvals:

Security Risks:

Acceptance Criteria: A security audit should be conducted to identify potential security risks, and a comprehensive security plan should be implemented.

Exit Criteria: All security vulnerabilities should be addressed, and a security certificate should be obtained.

Approvals: Security plan and certificate should be approved by the security team.

Performance Risks:

Acceptance Criteria: Load testing should be conducted to determine the system's performance capabilities, and performance benchmarks should be established.

Exit Criteria: The system should be able to handle the expected number of users and transactions without significant delays or errors.

Approvals: Performance benchmarks should be approved by the development and testing teams.

Data Loss Risks:

Acceptance Criteria: A backup plan should be established to prevent data loss in the event of a system failure or data corruption.

Exit Criteria: The backup plan should be successfully tested and verified.

Approvals: Backup plan should be approved by the development and testing teams.

Usability Risks:

Acceptance Criteria: User testing should be conducted to identify potential usability issues and to ensure that the system is user-friendly.

Exit Criteria: User feedback should be addressed and the system should be easy to use for all users.

Approvals: Usability testing results and changes should be approved by the design and development teams.

Legal Risks:

Acceptance Criteria: Compliance with local and national voting laws and regulations should be verified.

Exit Criteria: The system should meet all legal requirements and be compliant with relevant regulations.

**Approvals:** Legal compliance should be approved by legal team and government authorities.

**Accessibility Risks:**

**Acceptance Criteria:** Accessibility guidelines and standards should be followed to ensure the system is accessible to all users.

**Exit Criteria:** The system should be tested for accessibility issues and all identified issues should be addressed.

**Approvals:**

Accessibility testing and changes should be approved by the design and development teams.

The acceptance and exit criteria, along with the corresponding approvals, should be defined and agreed upon by the relevant stakeholders, including the development team, testing team, security team, legal team, and government authorities. It is essential to have a comprehensive risk management plan in place to ensure the system's reliability, security, and usability and to minimize potential risks.

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| **Test Scenario ID** | | Login-1 | | | **Test Case ID** | | | Login-1A | | |
| **Test Case Description** | | Login – Positive test case | | | **Test Priority** | | | High | | |
| **Pre-Requisite** | | A valid user account | | | **Post-Requisite** | | | NA | | |
| Test Execution Steps: | | | | | | | | | | | |
| **S.No** | **Action** | | **Inputs** | **Expected Output** | | **Actual Output** | **Test Browser** | | **Test Result** | **Test Comments** | |
| 1 | Launch application | | https://www.epic.com/ | EPIC home | | Epic home | Brave | | Pass | Launch successful | |
| 2 | Enter correct Email & Password and hit login button | | Email id : test@xyz.com  Password: \*\*\*\*\*\* | Login success | | Login success | Brave | | Pass | Login successful | |
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| **Test Scenario ID** | | Login-1 | | | **Test Case ID** | | | Login-1B | | |
| **Test Case Description** | | Login – Negative test case | | | **Test Priority** | | | High | | |
| **Pre-Requisite** | | NA | | | **Post-Requisite** | | | NA | | |
| Test Execution Steps: | | | | | | | | | | | |
| **S.No** | **Action** | | **Inputs** | **Expected Output** | | **Actual Output** | **Test Browser** | | **Test Result** | **Test Comments** | |
| 1 | Launch application | | https://www.epic.com/ | EPIC Home | | EPIC Home | Brave | | Pass | [[Vaishnav  17/12/2022  09:06AM]:  Launch successful | |
| 2 | Enter invalid Email & any Password and hit login button | | Email id : invalid@xyz.com  Password: \*\*\*\*\*\* | The email address or phone number that you've entered doesn't match any account. [Sign up for an account.](https://www.facebook.com/r.php) | | The email address or phone number that you've entered doesn't match any account. [Sign up for an account.](https://www.facebook.com/r.php) | Brave | | Pass | [Vaishnav  17/12/2022  09:12AM]: Invalid login attempt stopped | |
| 3 | Enter valid Email & incorrect Password and hit login button | | Email id : valid@xyz.com  Password: \*\*\*\*\*\* | The password that you've entered is incorrect. [Forgotten password?](https://www.facebook.com/recover/initiate?lwv=120&lwc=1348092) | | The password that you've entered is incorrect. [Forgotten password?](https://www.facebook.com/recover/initiate?lwv=120&lwc=1348092) | Brave | | Pass | [Vaishnav  17/12/2022  09:15AM]: Invalid login attempt stopped | |

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| **Project Name:** | |
| **Test Case Template** | |
| **Test Case ID:**  VOTE-001 | **Test Designed by:** <Vittal> |
| **Test Priority (Low/Medium/High):** Med | **Test Designed date:** <13/12/2022> |
| **Module Name:** Google login screen | **Test Executed by:** <Vaishnav> |
| **Test Title:** Verify login with valid username and password | **Test Execution date:** <17/12/2022> |
| **Description:** Test the Google login page |  |
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| **Pre-conditions:** User has valid username and password | |
| **Dependencies:** | |