|  |  |
| --- | --- |
| **Test Plan ID** | TestPlan\_001 |
| **Version** | 1 |
| **Author** | Name |
| **Date** | Date |

**Test Plan**

**Scope of Testing**

|  |  |
| --- | --- |
| **In-Scope** | **Out of Scope** |
| Functional testing (features listed in requirements) | Compatibility testing on old versions of OS |
| Performance testing (load and stress testing) | Testing of non-core components |
| Security testing (vulnerabilities) |  |
| Usability testing (user interface) |  |
| Regression testing (previously tested features) |  |

**Deliverables**

|  |  |  |
| --- | --- | --- |
| **Deliverable** | **Description** | **Due Date** |
| Test Cases | List of test cases designed based on requirements | [Date] |
| Test Execution | Report showing the status of executed tests | [Date] |
| Defect Reports | Documentation of any defects found during testing | [Date] |
| Test Summary Report | Final summary of testing activities and results | [Date] |

**Testing Strategy**

* **Types of Testing**:
  + Unit testing
  + Integration testing
  + System testing
  + User acceptance testing (UAT)
  + Performance testing
  + Security testing

**Testing Environment**

|  |  |
| --- | --- |
| **Environment Component** | **Details** |
| **Hardware** | List of hardware specifications (e.g., CPU, RAM, etc.) |
| **Software** | List of software dependencies (e.g., operating systems, databases) |
| **Network Configuration** | Special network setups or configurations required for testing |

**Resources**

|  |  |  |
| --- | --- | --- |
| **Role** | **Name/Resource** | **Responsibilities** |
| Test Lead | [Name] | Oversee testing activities, test planning |
| Testers | [List of Testers] | Execute test cases, report defects |
| Tools | [Tool Names] | List of tools for test management and automation |

**Test Schedule**

|  |  |  |  |
| --- | --- | --- | --- |
| **Activity** | **Start Date** | **End Date** | **Responsible Person** |
| Test Planning | [Date] | [Date] | [Name] |
| Test Case Design | [Date] | [Date] | [Name] |
| Test Execution | [Date] | [Date] | [Name] |
| Bug Fixing | [Date] | [Date] | [Name] |
| Final Test Reporting | [Date] | [Date] | [Name] |

**Test Case Design**

**Example-1**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Test Case ID** | **Description** | **Preconditions** | **Test Data** | **Expected Result** | **Actual Result** | **Status (Pass/Fail)** |
| TC\_001 | Verify login functionality | User is on the login page | Enter valid credentials | User successfully logged in | [Result] | [Pass/Fail] |
| TC\_002 | Verify invalid login attempt | User is on the login page | Enter invalid credentials | Error message displayed | [Result] | [Pass/Fail] |

**Example-2**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Test Case ID** | **Description** | **Preconditions** | **Test Data** | **Expected Result** | **Actual Result** | **Status (Pass/Fail)** |
| **TC\_001** | Verify login functionality | User is on the login page | Enter valid credentials (e.g., username: testuser, password: password123) | User successfully logged in | [Result] | [Pass/Fail] |
| **TC\_002** | Verify invalid login attempt | User is on the login page | Enter invalid credentials (e.g., username: wronguser, password: wrongpass) | Error message displayed | [Result] | [Pass/Fail] |

**Example-3**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Test Case ID** | **Description** | **Preconditions** | **Test Data** | **Expected Result** | **Actual Result** | **Status (Pass/Fail)** |
| **UT\_001**  **(Unit Test)** | Verify calculation function (addition) | The calculator function add(a, b) is implemented. | Input values: 2 and 3 | The sum should be 5. | [Result] | [Pass/Fail] |
| **IT\_001**  **(Integration Test)** | Verify login service integration with authentication | Login and authentication services are deployed and connected. | Valid credentials: username: testuser, password: password123 | User is logged in after authentication. | [Result] | [Pass/Fail] |
| **ST\_001**  **(Seystem Test)** | Verify user registration and login flow | User registration service is available and functional. | Username: newuser, Password: newpassword123 | Registration successful; user can log in. | [Result] | [Pass/Fail] |
| **PT\_001**  **(Performance Test)** | Verify performance under heavy load (1000 users) | Load testing tools are set up. | Simulate 1000 concurrent users accessing the system | The application should handle 1000 users with response time < 2 seconds. | [Result] | [Pass/Fail] |
| **CT\_001**  **(Compatibility Test)** | Verify application works on different browsers | The application is accessible on browsers (Chrome, Firefox, Safari). | Open the application in Chrome, Firefox, and Safari | The application should function correctly in all browsers without layout or functional issues. | [Result] | [Pass/Fail] |
| **SC\_001**  **(Security Test)** | Verify application is protected against SQL Injection | The application has login or form submission functionality. | Input: ' OR 1=1; -- in login form | Application should reject the input, and no unauthorized access should be allowed. | [Result] | [Pass/Fail] |