

Comprehensive Testing and Requirements Management for Demo Blaze E-commerce Platform

1. Task General Description

1.1. Objectives:

- Analyze requirements, create user stories, conduct testing (functional, usability, regression), manage defects, and generate release reports using **Excel and JIRA**.
- Ensure traceability from requirements to testing and defect management.
- Enhance testing artifacts and reports for better decision-making.

1.2. Tools to be Used:

- Microsoft Excel (Initial Documentation & Migration Source)
- JIRA (Test & Defect Management)
- Xray for JIRA (Test Case Management)
- Equivalence Partitioning & Boundary Value Analysis (Test Design Techniques)

2. Requirements

2.1. Requirement 1: Requirements Analysis & User Story Creation

Steps:

1. Review the functionalities of **DemoBlaze**.
2. Create three user stories.
3. Define acceptance criteria using Given-When-Then or checklist format.

Deliverables:

- Three structured user stories
- Acceptance criteria document

2.2. Requirement 2: Identify Ambiguities or Risks in User Stories

Steps:

1. Analyze the user stories for ambiguities, contradictions, and non-testable elements.
2. Identify at least 10 issues.
3. Suggest improvements for each issue.

Deliverables:

- Document listing 10 issues and suggestions for improvement

2.3. Requirement 3: Test Scenario and Test Case Creation

Steps:

1. Develop three test scenarios.
2. Write at least four test cases covering different functionalities.

Deliverables:

- Three test scenarios
- Four test cases (covering functionality, edge cases, and failures)

2.4 Requirement 4: Functional Testing Execution

Steps:

1. Execute test cases for selected features (e.g., login, product purchase, cart management).
2. Document the results (pass/fail status).
3. Log any defects found.
4. Suggest additional test scenarios for improved coverage.

Deliverables:

- Test execution report
- Defect logs
- Two to three additional test scenarios

2.5. Requirement 5: Usability Testing

Steps:

1. Evaluate navigation, clarity, and accessibility of **DemoBlaze**.
2. Identify at least three usability issues.
3. Provide a severity rating and suggested improvement for each issue.

Deliverables:

- Usability testing report

2.6. Requirement 6: Release Report Generation

Steps:

1. Summarize testing outcomes, defect status, and risks.
2. Provide a readiness assessment for deployment.

Deliverables:

- Release report with structured details.

2.7. Requirement 7: Regression Testing Strategy

Steps:

1. Analyze the impact of the new feature “product filters” in **DemoBlaze**.
2. Identify at least three affected areas.
3. Define five regression test cases.
4. Select two test cases suitable for automation and justify the choice.

Deliverables:

- Regression testing strategy document
- Test case list with automation recommendations

2.8. Requirement 8: Migrating Testing Artifacts to JIRA

Steps:

1. Transfer test cases and defect logs from Excel to JIRA.
2. Ensure test cases are linked to relevant user stories.
3. Validate traceability in JIRA.

Deliverables:

- Three test cases migrated to JIRA (linked to user stories)
- Two defects logged in JIRA (linked to test cases)
- Screenshot or exported traceability view from JIRA

3. Final Deliverables

- User story documentation
- Issue analysis report
- Test scenarios and test cases
- Functional testing execution report
- Usability testing report
- Release report
- Regression testing strategy
- Link to JIRA project
- JIRA migration summary with traceability proof

4. Folder Structure

DemoBlaze_Project/

| — Requirements_Analysis/

| | — User_Stories.xlsx

| | — User_Story_Issues.docx

| — Test_Design/

| | — Test_Scenarios.xlsx

| | — Functional_Test_Cases.xlsx

| — Testing_Execution/

| | — Functional_Test_Report.docx

| | — Defect_Logs.xlsx

| — Usability_Testing/

| | — Usability_Report.docx

| — Release_Management/

| | — Release_Report.docx

| | — Release_Enhancements_Proposal.pptx

| — Regression_Testing/

| | — Regression_Strategy.xlsx

| — JIRA_Migration/

| | — Excel_to_JIRA_Traceability_Screenshot.png

| | — Bulk_Import_CSV.csv

5. Bonus

- **Bulk Import to JIRA:** Try using JIRA's CSV import feature to migrate multiple test cases and defects simultaneously.
- **Automation Setup:** Implement automated regression testing for the selected test cases using Selenium or JIRA-integrated automation tools.
- **Usability Testing Heuristics:** Apply Jakob Nielsen's usability heuristics for deeper insights into usability testing.
- **Performance Testing:** Use JMeter to evaluate **DemoBlaze's** response times under load.