Project Report – Software Quality Assurance

Project Title: YOUR PROJECT NAME

Course: Software Quality Assurance (SQA)

Group Number: 01

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Supervisor: Salman Khalid

Institution: XYZ University

Date: January 03rd, 2026

Abstract

Provide a concise summary of the project, methods and key findings. ***(Write according to your project)***

Introduction

Background: ***(Write according to your project)***
Problem Statement: ***(Write according to your project)***

Objectives

- Apply SQA techniques to evaluate system quality.
- Design test cases for functional and non-functional requirements.
- Measure defect density and reliability.

(Above all are for sample. Write according to your project)

Case Study Description

System / Application Name: Your project name.

Key Features

(Write all the key features used in your project)

Software Quality Assurance Plan

Standards Used: ISO 9126; IEEE 829 (Enter standards you used in your project).

(Above all are for sample. Write according to your project)

Quality Goals

- Reliability: 99% uptime.

- Usability: Average task completion < 3 minutes.
- Performance: Search results within 2 seconds.

(Above all are for sample. Write according to your project)

Roles & Responsibilities

- QA Engineer: Test case design, execution and all activities performed by test engineer.
- Developer: Bug fixing, development and all activities performed by developer e.g., Bug Fixing etc.
- Project Manager: Stakeholder management and all activities performed by project manager e.g., Monitoring quality metrics.

(Above all are for sample. Write according to your project)

Requirements Analysis

Functional Requirements: ***(Write according to your project)***

- FR1:
- FR2:
- FR3:
- Any numbers of requirements depend on your project.

Non-Functional Requirements: ***(Write according to your project)***

- NFR1:
- NFR2:
- Any numbers of requirements depend on your project.

Test Plan Report

1. Test Levels: Unit; Integration; System; Acceptance. ***(Use all possible test levels according to your project)***
2. Tools Used: Selenium; JMeter; Bugzilla. ***(Write according to your project)***
3. Test Strategy: Combination of black-box and white-box testing. ***(Write according to your project)***
4. Test Case Table ***(Below all fields are compulsory to add in your testing sheet. To be submitted in an excel sheet).***
    a. Test Case ID (TS-001)
    b. Test Scenario
    c. Test Case Description
    d. Preconditions
    e. Test Steps
    f. Test Data
    g. Expected Results
    h. Actual Results
    i. Status (Pass/Fail)
    j. Severity
    k. Tester (All group members should perform testing together)

I. Date Executed

Defect / Bug Tracking Report

Defect Report Example: ***(Below all fields are compulsory to add in your testing sheet. To be submitted in an excel sheet).***

- Defect ID: DF-01
- Defect Description: Checkout all the fails.
- Defect Severity: (Critical / High / Average / Low)
- Defect Priority: (P1 (Urgent) / P2 (High) / P3 (Medium) / P4 (Low))
- Defect Status: (Pass / Fail)
- Defect Assigned to
- Defect Date Reported
- Defect Date Resolved

JMeter Report

- Test performance and load of your web application through JMeter.
- Use different thread group for each module used in your web application.
- Provide multiple reports for each thread group used in your web application.
    - View Result Tree (Attach table or screen shots of JMeter Screen)
    - Summary report (in csv format)
    - View Results in table (Attach Screen shots of JMeter Screen)

Quality Metrics

- Defect Density: 0.8 defects per KLOC.
- Test Coverage: 85% of functional requirements tested.
- MTBF / Reliability Metrics: MTBF increased from 20 hours to 50 hours.

(Above all are for sample. Write according to your project)

Results & Discussion

- Most defects were found in payment integration and search module.
- Performance improved after database indexing.
- Usability testing showed positive feedback from 10 test users.

(Above all are for sample. Write according to your project)

Conclusion

This project achieved the defined quality goals after applying SQA practices. The project demonstrates the importance of systematic testing, defect tracking, and continuous improvement in software quality.

(Above all are for sample. Write according to your project)

References

- IEEE Std 829-2008: Standard for Software Test Documentation
- ISO/IEC 9126: Software Engineering – Product Quality

- Pressman, R. S., *Software Engineering: A Practitioner's Approach*

(Above all are for sample. Write according to your project)

The End