# Sameer U Rege - SDET QA

This document represents a comprehensive end-to-end QA project strategy and execution details

for a 1.6-year E-commerce CRM project handled by Sameer U Rege as SDET QA.

The document includes Agile Scrum practices, SDLC, STLC, project deliverables, reporting formats, and production sign-off processes.

It outlines all activities and responsibilities carried out to ensure successful project delivery and release quality.

#### 1. Project Overview

The E-commerce CRM project aimed to streamline online customer interactions, automate sales pipelines,

improve order management, and enable data-driven decision-making. The platform integrated multiple

customer touchpoints such as web store, payment gateway, user dashboard, email notifications, and advanced analytics modules.

- \*\*Role of Sameer U Rege as SDET QA:\*\*
- Design, develop, and maintain automation frameworks.
- Define test strategies and ensure 100% coverage of critical workflows.
- Perform API, UI, and database testing.
- Generate detailed QA reports and sign-off documentation for each release cycle.

### 2. End-to-End Project Approach

The QA approach for the 1.6-year project included:

- Understanding business requirements and creating Requirement Traceability Matrix (RTM).
- Risk-based testing for critical features like cart, checkout, and payment.
- Early automation (Shift-Left Testing) for faster regression validation.
- Continuous integration and nightly automation runs using Jenkins.
- Defect life cycle management and RCA (Root Cause Analysis).

## 3. Agile Scrum Implementation

The team adopted Agile Scrum for iterative development and testing.

- \*\*Agile Practices:\*\*
- Sprint Duration: 2 weeks.
- Ceremonies: Daily stand-ups, sprint planning, sprint review, retrospective.
- Sprint Deliverables: Automated test scripts, manual test cases, and defect reports.
- QA Involvement: Participation in backlog grooming, estimation of QA effort, and defining acceptance criteria.

### 4. SDLC in the Project

The Software Development Life Cycle followed phases:

- 1. \*\*Requirement Analysis\*\*: Collaboration with stakeholders to finalize functional & non-functional requirements.
- 2. \*\*Design\*\*: Validation of UI mockups and workflow diagrams.
- 3. \*\*Development\*\*: Iterative coding and unit testing.
- 4. \*\*Testing\*\*: Comprehensive QA with automation and manual efforts.
- 5. \*\*Deployment\*\*: Staging and production deployments after sign-off.
- 6. \*\*Maintenance\*\*: Hotfix and patch testing post-release.

### 5. STLC in the Project

The Software Testing Life Cycle phases were:

- \*\*Test Planning\*\*: Defined strategy, test scope, tools, and resources.
- \*\*Test Design\*\*: Created detailed test cases, automation scripts, and test data.
- \*\*Test Execution\*\*: Performed functional, regression, smoke, and integration testing.
- \*\*Defect Reporting & Tracking\*\*: Documented defects in JIRA and ensured closure.
- \*\*Test Closure\*\*: Prepared Test Closure Reports and updated metrics dashboards.

### 6. QA Deliverables & Reports

The QA team delivered the following artifacts:

- Test Strategy & Test Plan documents.
- RTM mapping business requirements to test cases.
- Daily QA status reports and weekly dashboards for stakeholders.
- Defect density and defect leakage metrics.
- Sprint-wise Automation Execution Reports with pass/fail trends.
- Test Closure Reports for every release cycle.

## 7. Production Sign-Off Process

Before any release to production:

- All critical defects were resolved and verified.
- Regression suite executed with 100% pass rate.
- Final UAT sign-off obtained from business users.
- Performance tests validated the application under expected load.
- Backup and rollback plans reviewed and approved.

### 8. E-commerce CRM Testing Scenarios

Key testing scenarios covered:

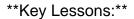
- User Registration and Login workflows.
- Shopping cart, order creation, and payment validations.
- Discounts, coupon codes, and tax calculation logic.
- API testing for order, customer, and product endpoints.
- Database validation for customer and order tables using SQL queries.
- Security testing (XSS, CSRF, SQL Injection).

### 9. Sample Report Formats



- Executed test cases count.
- Defects logged/resolved with priority and severity.
- Automation execution status.
- \*\*Defect Report Includes:\*\*
- Defect ID, module, severity, steps to reproduce, RCA, and fix status.
- \*\*Test Summary Report Includes:\*\*
- Total test cases planned, executed, passed, failed, blocked.
- Sprint-wise test coverage and defect trend charts.

#### 10. Lessons Learned & Key Achievements



- Early test involvement reduces production defects by 30%.
- Automation regression saved 50% of test execution time.
- Effective sprint retrospectives improved QA processes.
- \*\*Achievements:\*\*
- Successful on-time sign-off for 12+ major releases.
- Improved release quality with less than 2% defect leakage to production.
- Designed reusable automation framework integrated with CI/CD.

Sameer U Rege's contribution as an SDET QA ensured a seamless quality strategy and high customer satisfaction throughout the project lifecycle.