Software Project Test Plan
Project: Pizza Ordering Software Group: 4

Purpose:

The purpose of this document is to outline the testing strategy, test approach, and quality of our pizza ordering software project. This document will contain methodologies, traceability, resources required, and estimated schedule.

Audience:

The audience of this document will be the project team that's leading the development of our pizza ordering software. This document will also help guide any other outside tester or person, to understand the scope of the work accomplished by our test team.

Introduction:
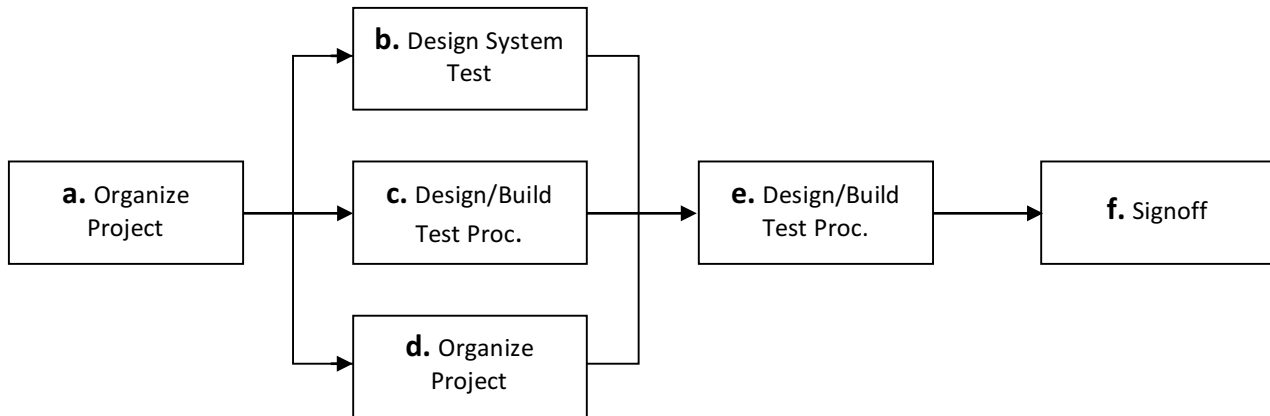
There will be 2 objectives:

1. Provide an adequate cover of metrics, requirements, validation, and system quality
2. Provide a solution to evaluate the data in a timely; cost-effective manner.

Process Overview:

1. Identify the requirements to be tested. All test cases shall be derived using the current Program Specification.

2. Identify which particular test(s) will be used to test each module.

3. Review the test data and test cases to ensure that the unit has been thoroughly verified and that the test data and test cases are adequate to verify proper operation of the unit.

4. Identify the expected results for each test.

5. Document the test case configuration, test data, and expected results.

6. Perform the test(s).

7. Document the test data, test cases, and test configuration used during the testing process. This information shall be submitted via the Unit/System Test Report (STR).

8. Successful unit testing is required before the unit is eligible for component integration/system testing.

9. Unsuccessful testing requires a Bug Report Form to be generated. This document shall describe the test case, the problem encountered, it's possible cause, and the sequence of events that led to the problem. It shall be used as a basis for later technical analysis.

10. Test documents and reports shall be submitted. Any specifications to be reviewed, revised, or updated shall be handled immediately.

Testing Process:

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                    ┌─────────────────────┐
                    │ b. Design System    │
                    │       Test          │
                    └─────────────────────┘

┌──────────────┐    ┌─────────────────────┐    ┌─────────────────────┐    ┌──────────────┐
│ a. Organize  │───▶│ c. Design/Build     │───▶│ e. Design/Build     │───▶│ f. Signoff   │
│   Project    │    │    Test Proc.       │    │    Test Proc.       │    │              │
└──────────────┘    └─────────────────────┘    └─────────────────────┘    └──────────────┘

                    ┌─────────────────────┐
                    │ d. Organize         │
                    │    Project          │
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Items to Be Tested:

1. Adding new users to database
2. Verifying existing users in database
3. Final Price variable
4. Printable receipt string variable with customer information and area to sign
5. Complete menu with capability to add and remove items before final sale

Items Not to Be Tested:

1. GUI
2. Service provided database

Software Risk Issues:

Risk	Probability	Risk Type	Owner	Contingencies / Mitigation Approach
Unable to acquire the necessary number of skilled personnel as the components become ready to test.	30%	Personnel Schedule	Test Manager	Resources for components will be split between the existing resources. Schedule must be adjusted accordingly.
Unable to acquire some of the necessary hardware and software required for integration and system testing	25%	Equipment	Program Manager Test Manager Development Manager	Utilize existing acquired hardware. Split test execution into morning and evening shifts such that testing can occur for multiple teams in the same day using the limited hardware. This requires support of the development during both shifts.
Turnover	5%	Personnel	Test Manager	Testers will work in pairs on components. If a single member of the team decides to leave, a secondary testing with the knowledge of the component will still be able to train a new tester or finish the work. Schedule must be adjusted accordingly.
Database corruption	10%	Equipment	Test Manager Development Manager	Developers will work together to figure out any data corruption issue with the software and try to solve the issue.

Approach:

General strategy:

Go through the software while performing unit testing. Everything should work as planned. Inputs from the customer information should be stored into the tested local database and should be able to fluidly change customer information. The pizza object and final price sale should be easily manipulated and tracked through the interface. There should also be a way to go back and edit the information entered at any point throughout the software before the final sale.

Item Pass/Fail Criteria:

Database: Should pass if tester is able to perform all needed requirements easily. Requirements include adding new customer information and verifying returning customer information.

Pizza object: Should pass if receipt prints out correct pizza crust, size, toppings, extras, beverage, and price accordingly.

Suspension Criteria & Resumption Requirements:

The testing will be suspended every time the software does not do what is needed to move forward. Resumption will continue after problems are noted after a problem is found.

Test Deliverables:

- Test case document
- Unit Testing and QA Testing strategy
- Test plan
- Test data
- Test results/reports
- Test summary report
- Defect report
- Release note

Environmental Needs:

A quiet, isolated environment would be preferred when performing any testing.

Staffing and Training Needed:

Anyone with a basic understanding of unit testing or QA testing.

Schedule:

Test Phase	Time	Owner
Test Plan Creation	1 wk	Test Manager
Test Specification Creation	2 wks	Test Leads
Test Specification Team Review	1 wk	Project Team
Component Testing	4 wks	Component Testers
Integration Testing	4 wks	Component & System Testers
System Testing	3 wks	System Testers
Performance Testing	1 wk	System Testers
Use Case Validation	2 wks	System Testers
Alpha Testing	1 wk	Product Managers / Analysts
Beta Testing Pilot Program	4 wks	Pilot Customers

Approvals:

Final product must be approved by customer, test management leader, and development leader.