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**Test Plan**



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**Project “Honeycomb”**

Document Revision History

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Date | Version | Description | Author | Reviewer | Approver |
| 3/10 | 0.1 | Test plan was created | Salma Eyadi |  |  |
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## INTRODUCTION

A recipe website was created, which passed the full cycle of testing. Given the specificity of the site it is very important to achieve high standards.

The Test Plan has been created to facilitate communication within the team members. This document describe approaches and methodologies that will apply to the unit, integration and system testing ,It includes the objectives, test responsibilities, entry and exit criteria, scope, schedule major milestones, entry and exit criteria and approach. This document has clearly identified what the test deliverables will be, and what is deemed in and out of scope.

## SCOPE

The document mainly targets the functional testing and validating data in report output as per Requirements Specifications.

* 1. Functions to be tested.
     + UI
     + Search
     + Security
     + Performance
  2. Functions not to be tested.



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1. Visual design of the website

## QUALITY OBJECTIVES

## Primary Objectives

A primary objective of testing is to: assure that the system meets the full requirements, including quality requirements (functional and non-functional requirements) and fit metrics for each quality requirement and satisfies the use case scenarios and maintain the quality of the product. At the end of the project development cycle, the user should find that the project has met or exceeded all their expectations as detailed in the requirements.

Any changes, additions, or deletions to the requirements document, Functional Specification, or Design Specification will be documented and tested at the highest level of quality allowed within the remaining time of the project and within the ability of the test team.

## Secondary Objectives

The secondary objectives of testing will be to: identify and expose all issues and associated risks, communicate all known issues to the project team, and ensure that all issues are addressed in an appropriate matter before release. As an objective, this requires careful and methodical testing of the application to first ensure all areas of the system are scrutinized and, consequently, all issues (bugs) found are dealt with appropriately.

## TEST APPROACH

The approach, that used, is Analytical therefore, in accordance to requirements-based strategy, where an analysis of the requirements specification forms the basis for planning,

estimating and designing tests. Test cases will be created during exploratory testing. All test types are determined in Test Strategy.



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## Test Automation

Automated unit tests are part of the development process.

## ROLES AND RESPONSIBILITIES

|  |  |  |
| --- | --- | --- |
| Role | Staff Member | Responsibilities |
| Project Manager |  | 1. Acts as a primary contact for development and QA team. 2. Responsible for Project schedule and the overall   success of the project. |
| QA Lead |  | 1. Participation in the project plan creation/update process. 2.Planning and organization of test process for the release. 3.Coordinate with QA analysts/engineers on any issues/problems encountered during testing.  4.Report progress on work assignments |
| QA |  | 1. Understand requirements. 2. Writing and executing Test cases 3. Preparing RTM(requirements traceability matrix) 4. Reviewing Test cases, RTM 5. Defect reporting and tracking 6. Retesting and regression testing 7. Bug Review meeting 8. Preparation of Test Data 9. Coordinate with QA Lead for any issues or problems encountered during test preparation/execution/defect handling. |

## ENTRY AND EXIT CRITERIA



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## Entry Criteria

* All test hardware platforms must have been successfully installed, configured, and functioning properly.
* All the necessary documentation, design, and requirements information should be available.
* All the standard software tools including the testing tools must have been successfully installed and functioning properly.
* Proper test data is available.
* The test environment such as, lab, hardware, software, and system administration support should be ready.
* QA resources have completely understood the requirements.
* Reviewed test scenarios and test cases.

## Exit Criteria

* A certain level of requirements coverage has been achieved.
* No high priority or severe bugs are left outstanding.
* All high-risk areas have been fully tested, with only minor residual risks left outstanding.
* Cost – when the budget has been spent.
* The schedule has been achieved.

## SUSPENSION CRITERIA AND RESUMPTION REQUIREMENTS

## Suspension criteria

* The build contains many serious defects which seriously limits testing progress.
* Significant change in requirements suggested by client.



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* Software/Hardware problems.
* Assigned resources are not available when needed by test team.

## Resumption criteria

Resumption will only occur when the problem(s) that caused the suspension have been resolved.

# TEST STRATEGY

## QA role in test process

* Understanding Requirements:
  + Requirement specifications will be sent by client.
  + Understanding of requirements will be done by QA
* Preparing Test Cases:

QA will be preparing test cases based on the exploratory testing. This will cover all scenarios for requirements.

* Creating Test Data:



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Test data will be created by QA based on scenarios and Test cases.

* Executing Test Cases:
* Test cases will be executed by QA on client's development/test site based on designed scenarios, test cases and Test data.
* Test result (Actual Result, Pass/Fail) will be updated in test case document Defect Logging and Reporting:

QA will be logging the defect/bugs in Word document, found during execution of test cases. After this, QA will inform respective developer about the defect/bugs.

* Retesting and Regression Testing:

Retesting for fixed bugs will be done by QA once it is resolved by developer and bug/defect status will be updated accordingly. In certain cases, regression testing will be done if required.

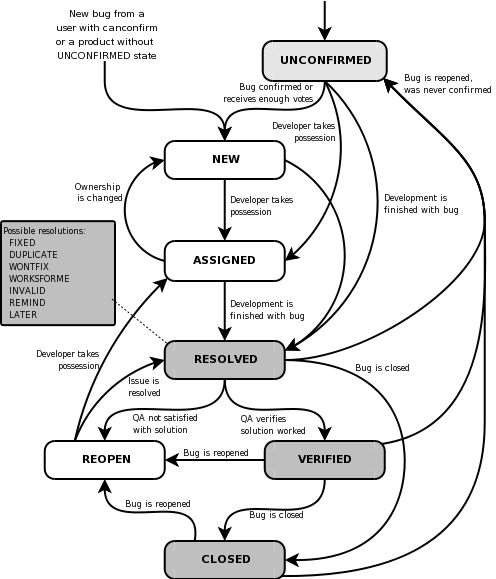
## Bug life cycle:

All the issues found while testing will be logged into Word document.

Bug life cycle for this project is as follows:



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## Testing types

Functional Testing:

Functional testing is carried out to find out unexpected behavior of the report. The characteristic of functional testing is to provide correctness, reliability, testability, and accuracy of the report output/data.

|  |  |
| --- | --- |
| **Test Name** | **Description** |
| Verify new Recipe addition | To verify that user can add a new recipe in recipe add page and when saving the recipe, it is displayed in homepage. |
| Verify altering recipes name and date works. | To verify if the alter recipe works and  the recipe is updated when navigating to alter recipe and changing only the name and the date of the recipe. |
| Verify rating functionality works | To verify that the app will not crash and update the rating when using 1 to five stars rating. |
| Verify altering recipe image works. | To verify if the alter recipe works and  the recipe is updated when navigating to alter recipe and changing only the image of the recipe. |
| Verify adding a review to a recipe works. - add all | To verify reviews that are written in review section in recipe info page are updated after clicking ADD. |

Smoke Testing:

Smoke Testing is done whenever the new functionalities of software are developed and integrated with existing build that is deployed in QA/staging environment. It ensures that all critical functionalities are working correctly or not.

|  |  |
| --- | --- |
| **Test Name** | **Description** |
| Verify home page navigation | To verify that the home page loads successfully when launching the app |
| Verify navigation from recipe info page to home page works | To verify that clicking the bee icon in the recipe info page will result in navigation to home page |
| Verify navigation from alter recipe home page works | To verify that clicking the bee icon in the alter recipe page will result in navigation to home page |
| Verify navigation from add recipe page to home page works | To verify that clicking the bee icon in the add recipe page will result in navigation to home page |
| Verify that user can’t add rating without review-only rating | To verify rating that is selected in review section in recipe info page without name and review is not updated to the reviews when pressing Add. |

User acceptance testing:

The purpose behind user acceptance testing is to conform that system is developed according to the specified user requirements and is ready for operational use.

|  |  |
| --- | --- |
| **Test Name** | **Description** |
| Verify Recipe Info Display | To verify if the recipe information including all fields are displayed in recipe info page when choosing a recipe from home page. |
| Verify that hexagons show correct images in home page. | To verify that image displayed in the hexagon shape shows the same image that is displayed in recipe info when clicking that image(recipe) |
| Verify that hover effect works in home page and shows correct information. | To verify that publisher name and recipe title displayed when hovering over a recipe in home page, shows the same info that is displayed in recipe info when clicking that recipe. |
| Verify Search Functionality works when entering a name of a recipe in the search box. | To verify that search functionality works, and the user is navigated to the recipe info page of the recipe he searched for. |
| Verify that user can’t add a review without review and rating – only name | To verify reviews that are written in review section in recipe info page and only name without review and star rating are not updated to the reviews. |

Security testing:

Security Tests is to identify all possible loopholes and weaknesses of the software system which might result in a loss of information, revenue, repute at the hands of the employees or outsiders of the Organization.

|  |  |
| --- | --- |
| **Test Name** | **Description** |
| Verify that adding a new  recipe using unauthorized.  file types fail. | To verify that creating a new recipe using an image file from type bmp doesn’t work. |
| Verify Search Functionality works when entering a sentence that doesn't match any recipe in the search box. | To verify that the search functionality works and that the app won’t crash when searching for something that is not in the data base. |
| Verify Search Functionality works when entering a random number in the search box. | To verify that the search functionality works and that the app won’t crash when searching for something that is not in the data base. |
| Verify that deleting a recipe from recipe info page works. | To verify that pressing the delete button in recipe info page will result in deleting only one image from the home page. |
| Verify that user can’t add a review without name and rating – only review | To verify reviews that are written in review section in recipe info page and only contain review without name and star rating are not updated to the reviews. |

## Bug Severity and Priority Definition

Bug Severity and Priority fields are both very important for categorizing bugs and prioritizing if and when the bugs will be fixed. The bug Severity and Priority levels will be defined as outlined in the following tables below. Testing will assign a severity level to all bugs. The Test Lead will be responsible to see that a correct severity level is assigned to each bug.

## Severity List

|  |  |  |
| --- | --- | --- |
| **Severity ID** | **Severity** | **Severity Description** |
| 1 | Critical | The app crashes or the bug causes non- recoverable conditions. System crashes, or database or file corruption, or potential data loss, program hangs requiring reboot. |
| 2 | High | Major system component unusable due to failure or incorrect functionality.  Bugs cause serious problems such as a lack of functionality, or insufficient or unclear error messages that can have a major impact to the user, prevents other areas of the app from being tested.  Bugs can have a work around, but the work around is inconvenient or difficult. |
| 3 | Medium | Incorrect functionality of component or process.  There is a simple work around for the bug. |
| 4 | Minor | Documentation errors or signed off. |

Priority List

|  |  |  |
| --- | --- | --- |
| **Priority** | **Priority Level** | **Priority Description** |
| 1 | Must Fix | This bug must be fixed immediately; the app cannot be presented with this bug. |
| 2 | Should Fix | These are important problems that should be fixed as soon as possible. It’s inconvenient to present the app with this bug. |

|  |  |  |
| --- | --- | --- |
| 3 | Fix When Have  Time | The problem should be fixed within the time available. If  the bug does not delay deadline, then fix it. |
| 4 | Low Priority | It is not important (at this time) that these bugs be addressed. Fix these bugs after all other bugs have been fixed. Enhancements/ Good to have features incorporated-  just are out of the current scope. |



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## RESOURCE AND ENVIRONMENT NEEDS

## Testing Tools

|  |  |
| --- | --- |
| Process | Tool |
| Test case creation | Microsoft Excel |
| Test case tracking | Microsoft Excel |
| Test case execution | Selenium |
| Test case management | Microsoft Excel |
| Defect management | Microsoft Word |
| Test reporting | PDF |

## Test Environment

* Support level 1 (browsers):
  + Windows 8: Edge, Chrome (latest), Firefox (latest), Safari (latest)

**APPROVALS:**



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|  |  |  |
| --- | --- | --- |
|  | **Project Manager** | **QA Lead** |
| **Name** |  |  |
| **Signature** |  |  |

## TERMS/ACRONYMS

The below terms are used as examples, please add/remove any terms relevant to the document.

|  |  |
| --- | --- |
| **TERM/ACRONYM** | **DEFINITION** |
| API | Application Program Interface |
| GUI | Graphical user interface |
| PM | Project manager |
| UAT | User acceptance testing |
| CM | Configuration Management |
| QA | Quality Assurance |
| RTM | Requirements Traceability Matrix |