|  |
| --- |
| Test Plan |
| 8HOURJOBS – Job web portal |
| Project Test Plan Specification , Version 1 |
|  |
| **Prepared by: Raji Rudhrakumar** |
|  |

Contents

[1. Purpose of the document: 3](#_Toc218833909)

[2. Project Overview: 3](#_Toc218833910)

[2.1 Audience: 3](#_Toc218833911)

[2.2 Hardware and Hosting: 3](#_Toc218833912)

[3. Information Architecture 3](#_Toc218833913)

[3.1 Registration 3](#_Toc218833914)

[3.1.1 Registration by jobseeker Module 3](#_Toc218833915)

[3.1.2 Registration by employer Module 4](#_Toc218833916)

[3.2 Sign In/Log In 5](#_Toc218833917)

[3.3 Search for jobs 6](#_Toc218833918)

[3.4 Apply for jobs 6](#_Toc218833919)

[3.5 Subscribe for job alert 6](#_Toc218833920)

[3.6 Job seekers to maintain profile 7](#_Toc218833921)

[3.7 Employer selecting a price package 7](#_Toc218833922)

[3.8 Employer to maintain profile 7](#_Toc218833923)

[3.9 Employer to post a job 8](#_Toc218833924)

[3.10 Subscribe for price offers 8](#_Toc218833925)

[3.11 Administration for search job seeker and employer 8](#_Toc218833926)

[3.12 Administration for maintain job seeker and employer 9](#_Toc218833927)

[3.13 Administration for create and maintain price package 9](#_Toc218833928)

[3.14 Contact us for both jobseeker and employer 9](#_Toc218833929)

[4. Non-Functional Requirement 9](#_Toc218833930)

[5. Site Design 10](#_Toc218833931)

[5.1HTML Requirements and Guidelines 10](#_Toc218833932)

[6. Sign-Off Document 10](#_Toc218833933)

# Introduction

This document is intended to give a complete planning of a systematic strategy for software testing of 8hourjobs website. 8hourjobs is composed of numerous features. This test plan is actually designed to ensure those features work up to the mark. Both directly and indirectly affected elements will be addressed here.

# Objectives

* Identify existing project information.
* Identify the approach that should be followed.
* Identify the features that should be tested.
* List the recommended test requirement
* Recommended and describe the testing strategies to be employed.
* Identify the required resources and provide an estimation of the test efforts.
* Fix the schedule of intended testing activities.
* Identify the risk associated with the test strategy.
* List the deliverables elements of the test activities.

## Scope:

This document will mainly provide the blue print of high level testing approaches of 8hourjobs website. It will provide guidance to the test engineers and a set of milestones for the manager. It will validate system functions of 8hourjobs website against the customer requirement. As the system has a set of features, we have prioritized the features and testing will take place according to this priority.

# Definitions and acronyms

|  |  |
| --- | --- |
| IEEE | The institute of Electrical and Electronic Engineers, Inc Publisher of engineering standards. |
| Integration Testing | A level of test undertakes to validate the interface between internal components of a system. It is based on the system architecture. |
| Black box testing | A type of testing where the internal working of the system are unknown. Testing to see if the system does what it's supposed to do. |
| Milestone | A major checkpoint or a sub-goal identified on the project or testing schedule. |
| Smoke test | A test runs to demonstrate that the basic functionality of a system exists and that a certain level of stability has been achieved. |
| Software risk analysis | An analysis undertaken to identify and prioritize features and attributes for testing. |
| Strategy | A description of how testing will be conducted. Includes any issues that affect the effectiveness or efficiently of testing. |
| System Testing | A comprehensive test undertaken to validate an entire system and its characteristics. |
| Test Items | A programmatic measures of something that will be tested (A program, requirement specifications, version of an application, etc) |
| Test Deliverable | Ay document, procedure, or other artefact created during the course of testing that's intended to be used and maintained. |
| Unit testing | A level of test undertaken to validate a single unit of code. |
| White-box testing | Testing based upon knowledge of internal structure of the system. Not only what the system does also how it does it |

# Test Items:

In this section we will provide a list of all those components that has been identified as test items. It is assumed that unit testing will be done through black box testing and testing of all modules interfaces will be ensured.

The interfaces between the following subsystems will be tested:

1. Register by jobseeker

2. Register by Employer

3. Sign in by jobseeker

4. Sign in by employer

5. Apply for a job

6. Post a job

7. Price package

8. Search for a job - both jobseeker and employer

9. Contact form

The external interfaces to the following browser will be tested:

* Google Chrome and Internet Explorer.

# Software Risk Issues

There are several parts of the project that are not within the control of the application but have direct impacts on the process and must be checked as well. Our main goal is to design a test strategy that utilizes a balance of testing techniques to cover a representative sample of the system in order to minimize risk. When conducting risk analysis, two major components are taken into consideration.

* The probability that the negative event will occur.
* The potential loss or impact associated with the test approaches of 8hourjobs website.

## 5.1 Not enough training / Lack of test competency:

As the system will be tested by training students of ichip, there lacks competency and experience among them. So there is a possibility of misunderstanding and misapplication of testing techniques.

## 5.2 Lack or user involvement:

Users play one of the most critical roles in testing. They make sure the software works from their perspective. It will be really hard to involve the employers to post a job in 8hourjobs website.

## 5.3 Not Enough schedules

As this project is being developed as a training project, there is not provided enough time to conduct the test processes. It will be a challenge to priorities the plan to test the right things in the given time.

## 5.4 Not Enough Budget for testing

As this is not a commercial project, there lacks budget for testing which may affect the testing process.

# Features to be tested

|  |  |  |
| --- | --- | --- |
| Features | Priority | Description |
| Add jobseeker | 1 | To allow the job seeker to join in 8hourjobs |
| modify jobseeker profile | 2 | Edit an existing profile by editing or changing the description of profile |
| Upload picture | 3 | upload picture in the profile |
| upload resume | 1 | upload resume in the profile |
| add jobs | 1 | To allow the employers to post a jobs in 8hourjobs. |
| Modify jobs | 2 | Modify the job by editing or changing its content. |
| delete jobs | 2 | remove the unavailable jobs |
| create contact form |  | creating the enquire form |
| Forget password | 3 | help user to use 8hourjobs |
| Send temporary password | 3 | make it secure |
| search jobs by js ad employer with/ without sign in. | 1 | system authentication |

## Technological features

|  |  |  |
| --- | --- | --- |
| Features | Priority | Description |
| Database | 1 | Access to database is frequently needed operation. So these technical features should be tightly in control for management system. |

## Quality Features

|  |  |  |
| --- | --- | --- |
| Features | Priority | Description |
| Ensure the email is sent to the expected receivers | 1 | This feature should strictly be managed to ensure privacy and reliability. |
| Authentication | 1 | Without authentication confidentiality and integrity are not guaranteed. |
| Filtering | 1 | this feature is needed because some messages need not be sent to all groups. |
| Proper information update | 1 | Proper information update procedure should work properly otherwise updated information will not work for the system. |

# 7. Features not to be tested

* Network security - Testing network security is out of our scop.
* Payment - Payment gateway are out of scop.
* Change user status - It will be done by admin manually

# 8. Process overview

The following represents the overall flow of testing process:

1. Identify the requirements to be tested.  Al test cases shall be derived using the current program specifications.
2. Identify which particular test(s) will be used to test each module.
3. Review the test data and test case to ensure that the unit has been thoroughly verified and that the test data and test cases are adequate to verify proper operations of the unit.
4. Identify the expected result 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 required before the unit I 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, its 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.

# 9. Testing Process

|  |  |
| --- | --- |
| Organise project | It involves creating a system test plan, schedule & test approach and assigning responsibilities. |
| Design system test | It involves identifying test cycle, test cases, entrance and exit criteria, expected results, etc, In general, test conditions, expected results will be identified by the test team I conjunctions with the development team. The test team will identify teat cases and test data required. The test conditions are derived from the program specifications documents. |
| Design Test Procedures | It includes setting up procedures such as error management system and status reporting. |
| Build Test Environment | It includes requesting, building hardware, software and data set-ups. |
| Executed system tests | The test identified in the design test procedures will be executed. All results will be documented and bugs report forms filled out and given to the development team as necessary. |
| Signoff | Signoff happens when all pre-defined exit criteria have been achieved. |

# 10. Test Strategy

The testing will be done manually until the site is sufficiently stable to begin developing automatic tests. The testing will cover the requirements for all of the different roles participating in the site examples Jobseekers and employers. HP Quality center is used to write the test case of 8hourjobs

# 11. Unit testing

Unit testing is done at the source or code level for language - specific programming errors such as bad syntax, logical errors to to test particular functions or code modules. The unit test cases shall be designed to test the validity of the programs correctness. This retest will be performed by the developers.

Whiteboxtesting:

The UI is bypassed. Inputs and outputs are tested directly at the code level and the results are compared against specifications. This form of testing ignores the function of the program under test and will focus only on its code and the structure of the code.

Back box testing:

Black box testing typically involves running through every possible input to verify that it results in the right outputs using the software an end-user would. We have decided to perform equivalence partitioning and boundary value analysis testing for the website.

1. Equivalence class partitions:

n considering input for equi

1. Valid inputs - test values within boundaries of the specification equivalence classes. This shall be input data the program expects and is programmed to transform into usable values.

Invalid input: Test equivalence classes outside the boundaries of the specification. This shall be input data the program may be presented, but that will not produce any meaningful output.

2. Boundary value analysis

The acceptance range of values for this application was set by the development team. At the time of testing developer will define the boundary value and generate test case for performing the boundary value analysis.

Integration testing:

Integration test exercise an entire subsystem and ensure that a set of components play nicely together.

System testing:

The goals of system testing are to detect faults that can only be exposed by testing the entire integrated system or some major part of it. Generally, system testing is mainly concerned with areas such as performance, security, validation, load, and configuration sensitivity. But in our case we are not focusing on any performance testing.

Functional test:

Functional test verify end-to-end scenarios that 8hourjobs user will engage in.

User Interface Testing:

UI testing verified a user’s interface interactions with the s/w. The goal of UI testing is to ensure that the UI provides the user with the appropriate access and navigation through the functions of the target-of-test. In addition, UI testing ensures that the objects within the UI function as expected and conform to corporate or industry standards.

For the website, we perform the unit testing first. Because unit testing will ensure that the all components of the system is working properly or not. If a single unit not work properly the integration test is not necessary to perform because in the smallest component is not working well.

If the unit testing is work properly then we will perform integration test. Total system will be divided in some subsystem. And we will test that subsystem work properly or not.

If the integration test perform well then we will move to functional test as well as other tests for total system is it work properly or not.

Item pass/Fail Criteria:

The entrance criteria for each phase of testing must be met before the next phase can commence. Now the criteria's for pass and fail are given below. These criteria are set with the help of s/w requirement specification versiion1.0.

1. According to the given scenario the expected result need to take place then the scenario will be considered as pass otherwise that criteria should be failed.

2. If an item tested 10 times, 9 times perfectly worked and single time do not work properly then it will consider as fail case.

3. System crash will be considered as fail case.

4. After submitting q query in the system, if expected page won't appear then it will be consider a fail case.

 Test Deliverables: