Test Plan

**Job Search System**

**Prepared by:**

1. Deepak Kadam (F16111035)
2. Arisha Chamadiya (F16111049)
3. Swati Patra (F16111065)

**Problem Statement:**

To test Job Search System Modules using Black-box and White-box testing covering Unit and Integration test by using JUnit testing tool.

**System Modules:**

1. Insert Company
2. Show Company Details
3. Search Candidate
4. Insert Candidate
5. Search Company

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**1.0 INTRODUCTION**

* The application “Job Search” provides an easy and convenient search application for job seekers to find their desired jobs and for the recruiters to find the right candidate.
* Job seekers can register with the application and update their details and skill set.
* Employer can register with the application and post their current openings. They can view the Job applications and can screen them according to the best fit.

**2.0 OBJECTIVES AND TASKS**

**2.1 Objectives of Test Plan**

A candidate can perform the following tasks through the application –

* Entering details- marks and skill set.
* Viewing the best company.

A company can perform the following tasks through the application –

* Entering details of required – minimum marks and skill set.
* Viewing the company details.
* Viewing the candidates that match company requirements.

**2.2 Tasks of Test Plan**

* Identifying and describing appropriate test techniques.
* Verify and assess the Test Approach.
* Execute the tests, Log results, Report the defects.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Sr.**  **No.** | **#Business Requirements**  **(BR)** | **#Functional Requirements**  **(FR)** | **#Test Scenarios (TS)** | **#Testing Approaches /Strategies**  **(TA)** |
| 01 | Provide a way to the company to display their skills and marks required. | Candidates must be displayed after validating the marks and skill set. | Insert company, Show details, Search candidates | 1.Functional Testing  (Standard Testing) |
| 02 | Provide a way for the candidates to search for the best company that matches their skill set and marks required. | Best company must be displayed after validating the marks and skill set of the company. | Insert candidate, Search Company |

**3.0 SCOPE**

The Job Search System will act as a bridge of communication between company and the candidates. It will help to reach a wide range of audience. This system will provide searching of eligible candidates and search for company that matches skills and marks required without any manual checking.

**4.0 TESTING STRATEGY**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Approach** | **Type of Testing** | **Manual Testing** | | **Automated Testing on Device** | **Tools/APIs/Libraries** |
| **Using Device** | **Using Emulator** |  |  |
| Standard Testing  (Functional Testing) | Unit Testing | Yes | Yes | Yes | Junit  (Unit Testing Framework) |
| Integration Testing | Yes | Yes | Yes |
| Acceptance Testing | Yes | Yes | No |
| Special Type of Testing to Address Specific Challenge | Compatibility Testing | Yes | Yes | Yes |

**4.1 UNIT TESTING**

**Definition:**

Each module that is developed by group members will to be tested individually to verify proper operation so that any faulty module can be fixed immediately rather than let it exist and then cause some major issue in the integration phase.

**Participants:**

Deepak Kadam, Arisha Chamadiya, Swati Patra

**Methodology:**

During this testing, the test team brainstorms the scope of testing, test strategy and drafts a detailed test plan.

|  |  |
| --- | --- |
| **MODULE/FUNCTIONALITY NAME:** | Test database connection |
| **UNIT/CLASS:** | Database |
| **CREATED BY:** | Deepak Kadam |
| **DATE OF CREATION:** | 06/08/2019 |
| **DATE OF REVIEW:** | 10/08/2019 |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **TEST CASE ID** | **TEST UNIT/CLASS** | **TEST CASE** | **PRE-CONDITION** | **EXPECTED RESULT** | **ACTUAL RESULT** | **STATUS**  **(PASS/FAIL)** |
| 1 | Database | Validate DBMS Connection | JDBC driver should be present | Not null | Not null | Pass |

**Execution Status:** Completed

|  |  |
| --- | --- |
| **MODULE/FUNCTIONALITY NAME:** | Insert Company test |
| **UNIT/CLASS:** | InsertCompany |
| **CREATED BY:** | Swati Patra |
| **DATE OF CREATION:** | 06/08/2019 |
| **DATE OF REVIEW:** | 10/08/2019 |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **TEST CASE ID** | **TEST UNIT/CLASS** | **TEST CASE** | **PRE-CONDITION** | **EXPECTED RESULT** | **ACTUAL RESULT** | **STATUS**  **(PASS/FAIL)** |
| 1 | InsertCompany | Insert company details in the database | Database connection should be established | Company details inserted into the database | Company details inserted into the database | Pass |

**Execution Status:** Completed

|  |  |
| --- | --- |
| **MODULE/FUNCTIONALITY NAME:** | Display entries from database |
| **UNIT/CLASS:** | Display |
| **CREATED BY:** | Arisha Chamadiya |
| **DATE OF CREATION:** | 06/08/2019 |
| **DATE OF REVIEW:** | 10/08/2019 |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **TEST CASE ID** | **TEST UNIT/CLASS** | **TEST CASE** | **PRE-CONDITION** | **EXPECTED RESULT** | **ACTUAL RESULT** | **STATUS**  **(PASS/FAIL)** |
| 1 | Display | Display company entries | Company details should be present in the database | Company list | Company list | Pass |

**Execution Status:** Completed

|  |  |
| --- | --- |
| **MODULE/FUNCTIONALITY NAME:** | Search for candidates |
| **UNIT/CLASS:** | SearchCandidate |
| **CREATED BY:** | Arisha Chamadiya |
| **DATE OF CREATION:** | 06/08/2019 |
| **DATE OF REVIEW:** | 10/08/2019 |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **TEST CASE ID** | **TEST UNIT/CLASS** | **TEST CASE** | **PRE-CONDITION** | **EXPECTED RESULT** | **ACTUAL RESULT** | **STATUS**  **(PASS/FAIL)** |
| 1 | SearchCandidate | Display candidates | Candidate details should be present in the database | Arisha  Deepak | Arisha  Deepak | Pass |

**Execution Status:** Completed

|  |  |
| --- | --- |
| **MODULE/FUNCTIONALITY NAME:** | Insert Candidate details |
| **UNIT/CLASS:** | InsertCandidate |
| **CREATED BY:** | Swati Patra |
| **DATE OF CREATION:** | 06/08/2019 |
| **DATE OF REVIEW:** | 10/08/2019 |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **TEST CASE ID** | **TEST UNIT/CLASS** | **TEST CASE** | **PRE-CONDITION** | **EXPECTED RESULT** | **ACTUAL RESULT** | **STATUS**  **(PASS/FAIL)** |
| 1 | InsertCandidate | Insert candidate details in the database | Database connection should be established | Candidate details inserted into the database | Candidate details inserted into the database | Pass |

**Execution Status:** Completed

|  |  |
| --- | --- |
| **MODULE/FUNCTIONALITY NAME:** | Search for company |
| **UNIT/CLASS:** | SearchCompany |
| **CREATED BY:** | Deepak Kadam |
| **DATE OF CREATION:** | 06/08/2019 |
| **DATE OF REVIEW:** | 10/08/2019 |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **TEST CASE ID** | **TEST UNIT/CLASS** | **TEST CASE** | **PRE-CONDITION** | **EXPECTED RESULT** | **ACTUAL RESULT** | **STATUS**  **(PASS/FAIL)** |
| 1 | SearchCompany | Searching for companies in the database based on candidate’s constraints | Company Details should be present | TCS | TCS | Pass |

**Execution Status:** Completed

**4.2 INTEGRATION TESTING**

**Definition:**

Integration is a level of software testing where individual units are combined and tested as a group. The purpose of this level of testing is to expose faults in the interaction between integrated units.

**Participants:**

Deepak Kadam, Arisha Chamadiya, Swati Patra

**Methodology:**

Initially we are integrating all resource files then we are testing all integrated modules with JUnit framework

|  |  |
| --- | --- |
| **PROJECT NAME:** | Job Search System |
| **MODULE/FUNCTIONALITY:** | Linked Resources Testing |
| **CREATED BY:** | Deepak Kadam |
| **DATE OF CREATION:** | 11/08/2019 |
| **DATE OF REVIEW:** | 14/08/2019 |

**4.3 USER ACCEPTANCE TESTING**

**Definition:**

The purpose of acceptance test is to confirm that the system is ready for operational use. During acceptance test, end-users (customers) of the system compare the system to its initial requirements.

**Participants:**

Users

**Methodology:**

This testing done with the help of users of the system. User is the one who will test the project.

|  |  |
| --- | --- |
| **PROJECT NAME:** | Job Search System |
| **MODULE/FUNCTIONALITY:** | Validate Input Fields |
| **CREATED BY:** | Deepak Kadam, Swati Patra, Arisha Chamadiya |
| **DATE OF CREATION:** | 15/08/2019 |
| **DATE OF REVIEW:** | 19/08/2019 |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **ID** | **Test Description** | **Step #** | **Test Steps** | **Exp. Results** | **#Business Req. Covered** | **#Functional Req. Covered** |
| 1 | Validating all the entries | - | 1) If one of the fields is empty, it will give an alert message that all entries are compulsory  2) Input type will be validated | Text field constraints and user credentials are validated | Username and password are being verified using Java String functions | Login credentials has been validated through database |

1. **HARDWARE REQUIREMENTS** 
   * RAM 1024MB+
   * Intel Core i3 Processor
2. **ENVIRONMENT REQUIREMENTS**

**6.1 Main Frame**

* Operating Platform (Any Operating System)
* Java Technology
* JUnit Testing Framework libraries

**7.0 TEST SCHEDULE**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Task Name** | **Start Date** | **Finish Date** | **Effort Estimation** | **Comments** |
| Test Planning | 16/07/2019 | 04/08/2019 |  | Test Cases Formed |
| Review Requirements documents | 16/07/2017 | 20/07/2019 | 05 d |  |
| Create initial test estimates | 21/08/2019 | 4/08/2019 | 15 d |  |
| Unit Testing | 06/08/2019 | 10/08/2019 | 6d | Modules Tested |
| Integration testing | 11/08/2019 | 14/08/2019 | 4d | Successful |
| User Acceptance Testing | 15/08/2019 | 19/08/2019 | 5d | Successful |
| Resolution of final defects and final build testing | 20/08/2019 | 23/08/2019 | 4d | Defects Found |

1. **FEATURES TO BE TESTED**

* Login text fields validation
* Database fetching
* User credentials should be tested

**9.0 RESOURCES/ROLES & RESPONSIBILITIES**

**10.0 DEPENDENCIES**

* JDBC Libraries

**11.0 TOOLS**

* JUnit testing framework
* Eclipse IDE

**12.0 APPROVALS**

**Ms. R. M. WAHUL**

## **Defect Report**

|  |  |
| --- | --- |
| **ID** | 1 |
| **Project** | Job Search System |
| **Product** | Job Search System |
| **Release Version** | 1 |
| **Module** | Database |
| **Detected Build Version** | 1 |
| **Summary** | Missing JDBC MySQL component |
| **Description** | Connection to the MySQL database fails due to absence of important JDBC component |
| **Steps to Replicate** | Try to establish a connection to the database using DriverManager without including the JDBC connector JAR file |
| **Actual Result** | ClassNotFoundException thrown |
| **Expected Results** | Database connection established successfully |
| **Defect Priority** | **HIGH** |
| **Reported By** | Group Members |
| **Assigned To** | Group Members |
| **Status** | Solved |
| **Fixed Build Version** | 2 |