TEST PLAN

Contents

1   TEST PLAN IDENTIFIER   USERS.1.1

2   REFERENCES

1. Requirements specifications
2. Developed system

3   INTRODUCTION

This is the Test Plan for the USERS project. This document describes the methods and procedures that will be used in the testing process of the system USERS.

This plan will address only those items and elements that pertain to critical functionality of the developed system.

The primary focus of this plan is to ensure that the free testing system USERS conforms to its functional and non-functional requirements outlined in the software requirements specification document.

4   TEST ITEMS

The following is a list of the items to be tested:

A. Registration

B. Login

C. User creation

D. User management

E. Company creation

F. Company management

G. Task creation

H. Task management

5   SOFTWARE RISK ISSUES

There are several aspects of the project that may have direct impacts on the testing process.

A. The system USERS was developed as a free testing system for learning purposes. Consequently, the system may experience downtime or be taken down altogether any time.

B. Lack of appropriate documentation and clear requirements as such may lead to absence of full understanding of the expected feature behavior.

C. Test coverage may be affected by the timeline constraints.

D. Unit testing will not be conducted due to limitations of developer's availability.

6 FEATURES TO BE TESTED

The following is a list of the areas to be focused on during testing of the system:

A. Registration via email

B. Registration via social login

C. Login

D. User profile edit

E. Notifications bar

F. Create and edit

G. User list and view user

H. Create and edit task

I. Task list and view task

J. Create and edit company

K. Company list and view company

L. Create and edit company

7 FEATURES NOT TO BE TESTED

The following is a list of the areas that will not be specifically addressed during the outlined testing process.

A. Notifications page

B. Task calendar

These features will be released but not tested or documented as a functional part of the release of this version of the software. Further developments and improvements to the features are planned.

8 APPROACH

8.1 TESTING LEVELS, TYPES AND TECHNIQUES

The testing for the USERS project will consist of System and Integration test levels.

At the Integration level, the cross-feature functionalities will be checked. Such as integration between the primary features described in the section 6 above.

At the System level, the system completion and readiness for the release will be the main focus.

Both of the performed test levels require that various aspects of the tested software are checked. This involves the execution of different testing types and techniques.

The main testing types and techniques that would be executed:

    A. Functional testing

    B. GUI testing

    C. API testing

    D. Load testing

    E. Automated testing

With staffing constraints and timeline established, the whole testing process will be performed solely by the QA Engineer.

System and Integration testing will be performed by the QA engineer with the assistance from the QA Tech Lead as required. The comprehensive list of specific tools utilized during the testing process of this project can be found in the 8.3 Test Tools section.

The software in question may have up to five (5) major defects as long as they don't impede testing of the program.

All System and Integration test information will be delivered to the QA Tech Lead for further assessment.

Once the System and Integration testing has been fully completed, the software may be passed into the Accepting testing stage that is not to be included in the current testing process as it will be conducted separately.

8.2   TEST TOOLS

The test tools to be used are the following:

    A. *PerfectPixel by WellDoneCode* will be used for GUI testing to ensure that user interface meets its specifications so that primary functions can be properly accessed and utilized by the end user.

    B. *Postman v10.8.0* will be used for API testing.

    C. *Apache JMeter Version 5.4.3* will be used for Load testing.

    D. *Java version 18.0.1.1* will be used for Automated testing.

    E. *IntelliJ IDEA 2022.1.1 (Community Edition)* will be used for Automated testing.

8.3   MEASURES AND METRICS

The following information will be collected by the QA during all testing phases. It will be delivered to the QA Tech Lead upon completion of System and Integration testing as planned.

A. Defects by module and their severity. All minor defects will be totaled.

B. Defect origin (requirement, design, or code).

C. Defects identified at higher levels that should have been discovered at previous (lower) levels of testing.

9   ITEM PASS/FAIL CRITERIA

The test process will be considered as completed once the criteria below are met:

A. Functional test coverage of 85% is achieved.

B. All manual and 10 automated tests are executed.

C. Test deliverables are prepared and reviewed by the QA Tech Lead.

D. Test completion deadline is reached.

10   SUSPENSION CRITERIA AND RESUMPTION REQUIREMENTS

A. Software access limitations

As this software is managed by a third party, the testing process may be paused or stopped altogether in case open access is limited by the owner of the software under development. The testing process will not be resumed until the software becomes accessible.

B. Unavailability of APIs

The APIs used for the testing process are open-source APIs managed by a third party. In the event of APIs becoming restricted to only certain parties, the API testing will be suspended until open availability is revived.

11   TEST DELIVERABLES

A. GUI checklist

B. Functional test cases

C. API test cases

D. Load testing

E. 10 automated tests

12   REMAINING TEST TASKS

Task	Assigned to	Status
Define Unit testing rules and procedures	Dev	On Hold
Perform Unit testing	Dev	On Hold
Create Acceptance Test Plan	PM, Client	In progress

13   ENVIRONMENTAL NEEDS

The following elements are required to support the overall testing effort at all levels within the USERS project:

A.   Access the development and production systems. Alternatively, access to the live system may be partially sufficient.

B.   Access to APIs for API for various types of testing.

C.   At least one (1) computer run Windows 8 or newer, RAM 1GB, CPU 3.4GHZ.

D.   Stable and reliable internet connection.

14   STAFFING AND TRAINING NEEDS

To provide complete and proper testing, the following areas need to be addressed in terms of staffing:

A.   At least one (1) full time QA assigned to the project for System and Integration testing.

B.   At least one QA Tech Lead will be required to be assigned on a part-time basis for test process assessment.

C.   No training on the system is required. However, an introductory session would be preferred.

15   RESPONSIBILITIES

Task	Assigned to
Test procedures & rules	QA, Dev, PM
Integration test documentation & execution	QA
System test documentation & execution	QA
Test report reviews	QA, Devs, PM, Client

Product Manager:

- Involved into the creation of test rules and procedures when needed
- Participating in the report reviews process
- Providing all the required resources for the testing activities

QA Tech Lead:

- Managing the QA Engineer from a technical side
- Analyzing the tasks and prioritizing them
- Involved into creating test documentation
- Assisting the QA Engineer in choosing best practices for a project

QA Engineer:

- Test case creation
- Test execution
- Bug, error, defect logging

16   SCHEDULE

The specified dates and time allocated for each activity are outlined in the project plan timeline. Coordination of the persons required for each activity or task will be handled by the Product Manager in cooperation with the QA Tech Lead.

- Review of the requirements specification document by the QA Engineer and QA Tech Lead.
- Development of Integration and System test plans by the QA Tech Lead.

- Time allocated for both Integration and System test processes.

17   PLANNING RISKS AND CONTINGENCIES

The staff currently has three (3) QA Engineer positions unfilled. As a result of staff shortage, there may be delays in testing process and report deliveries. This should not have a direct impact on quality of the testing process.

Should this occur, the project plan timeline will be adjusted, and relevant stakeholders will be notified immediately.

18   APPROVALS

Product Manager	Jordan Blue
Development Manager	Brian Tyrone
Test Manager / QA Tech Lead	Iryna Volnykh