

TEST PLAN FOR VCADOGANJOBSPROJECT

ChangeLog

Version	Change Date	By	Description
version number	Date of Change	Name of person who made changes	Description of the changes made
002	3/18/2021	Victoria Cadogan	Pushed GUI to GitHub
001	2/26/2021	Victoria Cadogan	Implemented testing

1	INTRODUCTION	2
1.1	SCOPE	2
1.1.1	<i>In Scope</i>	2
1.1.2	<i>Out of Scope</i>	2
1.2	QUALITY OBJECTIVE.....	2
1.3	ROLES AND RESPONSIBILITIES.....	3
2	TEST METHODOLOGY	3
2.1	OVERVIEW	3
2.2	TEST LEVELS	3
2.3	BUG TRIAGE	3
2.4	SUSPENSION CRITERIA AND RESUMPTION REQUIREMENTS	3
2.5	TEST COMPLETENESS	4
3	TEST DELIVERABLES	4
4	RESOURCE & ENVIRONMENT NEEDS.....	4
4.1	TESTING TOOLS	4
4.2	TEST ENVIRONMENT	4
5	TERMS/ACRONYMS	5

1 Introduction

This project represents an analysis on the total number of students and employment rate in the United States. The college data is retrieved via an API call from a government website and an excel file that contains employment data. The two are matched per state and the calculations assess the economic development of the states, which is correlated to the employment opportunities and the number of grads per state.

1.1 Scope

1.1.1 In Scope

The software involves arranging the data into a database and displaying the calculations. The functional requirements that would get tested are: implementing a table with data from the SQLite database, allowing the user to import their own excel file. The non-functional requirements that will be tested are: the functionality of the buttons on the interface, accurate color-coded rows based on the comparison results, accurate implementation on the United States Map.

1.1.2 Out of Scope

Since the project is still in its beta stages, it could use performance improvement. Hence, the performance speed will not be tested.

1.2 Quality Objective

The objective of the test is to ensure a quality delivery of the performance, accuracy, responsiveness.

The objectives include:

- Ensure the Application Under Test conforms to functional and non-functional requirements
- Ensure the interface has responsive buttons, accurate data, visible interface
- Bugs/issues are identified and fixed before go live

1.3 Roles and Responsibilities

The project was implemented solely by Victoria Cadogan, therefore her roles include: QA Analyst, Test Manager, Configuration manager, Developer.

2 Test Methodology

2.1 Overview

The test methodology just like the application development was agile. Every sprint, a new feature was implemented along with a handful of tests.

2.2 Test Levels

The testing would be implemented via PyTest-QT since the project was developed in Python and PyQt5 libraries for GUI. The PyTest involves testing of the application and the PyTest-QT asserts the responsiveness of the GUI. The time constraint is 2 months, and the budget was none because it was a university assignment.

2.3 Bug Triage

The goal of the triage is to

- To define the type of resolution for each bug
- To prioritize bugs and determine a schedule for all “To Be Fixed Bugs”.

2.4 Suspension Criteria and Resumption Requirements

Suspension criteria includes the inaccurate data, bugs, crashes, infinite loading speed. Resumption criteria is when all of the above issues have been fixed.

2.5 Test Completeness

The test will be completed as soon as it has:

- 100% test coverage
- All Manual & Automated Test cases executed
- All open bugs are fixed

3 Test Deliverables

The test deliverables will include the following:

- Test Plan
 - Test Cases
 - Bug Reports
 - Test Strategy
-

4 Resource & Environment Needs

4.1 Testing Tools

Testing Tools will include the following:

- Requirements Tracking Tool via requirements.txt
- Bug Tracking Tool via PyCharm IDE
- Automation Tools via PyTest-QT (qtbot)

4.2 Test Environment

The minimum hardware requirements includes the following:

- x86 64-bit CPU (Intel / AMD architecture)
- GB RAM.
- GB free disk space.

Following software are required:

- Modern Operating System
- Python 3.8 and above

5 Terms/Acronyms

Make a mention of any terms or acronyms used in the project

TERM/ACRONYM	DEFINITION
API	Application Program Interface
GUI	Graphical User Interface