QUALITY ASSURANCE

Glancify
Version 1.0

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1 Introduction

The purpose of this document is to elaborate the Software Quality Assurance Plan(SQAP) for Glancify. Glancify is an extension for popular web browsers like Google Chrome and Mozilla Firefox that allows its users to quickly glance through their latest notifications on all major platforms that too without opening multiple tabs or windows thereby saving a lot of productive time.

1.1 Significance of this Document

Software Quality Assurance Plan (SQAP) consists of the methods and techniques used to make sure that the product meets the requirements specified in software requirements specification. Thus this document acts as a way of preventing mistakes or defects in delivered product as well as any team level discrepancies.

1.2 Scope for this Document

The scope of this document is to mention all the methods and techniques to be used for assuring the quality of this project.

- Identifies the responsibilities for software quality assurance of our project by reviewing documents and assigned tasks

- Lists out all the activities, processes, and artifacts that will be taken into consideration for software quality.

1.3 Reference Documents

- Software Requirements Specifications Document

- Project Plan

- System Test Plan

- IEEE Guide for Software Quality Assurance Planning

1.4 Overview

Glancify is a tool for anyone and everyone who wants to be active on multiple platforms at the same time without wasting time switching between tabs and windows and avoid multiple logins and notification floods when logging in after a long haul.

So a chrome extension and a mozilla add on are developed to ease the lives of people. The user can add cards in the layout and log in in a variety of platforms at the same time.

2 Management

2.1 Organisation

Since the project does not carry a live client, the project will be monitored by organizing meetings with the team members at regular intervals. Team members are assigned specific tasks involved in the software development process. At the end of each phase, progress will be assessed and consequently further planning would be done to complete the project.

To ensure that the product is high quality, it is necessary to test the product. Each feature of the application would be tested. The development team along with the testing team will perform testing. Since the team size is small and we can not have two separate teams for testing and development some members' roles overlap and they perform testing as well as development.

2.2 Roles and Responsibilities

To maintain the quality of each output from a particular phase, a review process will be followed after each phase. During the coding phase, proper coding conventions and standards will be followed. Amongst us, we have divided the team that will ensure that the product is of high quality. Given below are the roles and responsibilities that we are mainly assigned to the team members forensuring quality:

The responsibilities of the Developer, Documentation team are as follows:

- To ensure that the product is developed in accordance with requirement specification.

- Develop the design documents and test plan for testing the tool.

- Implement the application and deliver the application along with the necessary documentation

The responsibilities of the testing and review team is to:

- Review the work performed by the developers and documentation team.

- Provide feedback and advice

  Test cases to check the different functionalities of the delivered product and check through any discrepancies

- Planning, coordinating, testing and assessing all quality based aspects

3 SQA Implementation in different phases

Quality assurance will take place through all phases of the lifecycle of software development till the product is launched. The following are the quality control tasks for each phase of software development:

3.1 Requirements phase

When the SRS is being made, the team responsible for ensuring that documentation must clearly establish the functionality of the product proposal and update the SRS until the requirements are clearly stated and understood.

3.2 Design phase

The design plays an important role in how the product will look in general. Because of the great importance of design documents, accuracy and completeness in these documents are necessary. So, reviews will be conducted to identify and rectify defects.

3.3 Implementation phase

The developers implementing the design into code need to perform unit testing to test all modules independently

3.4 Software testing phase

The testing team shall prepare test cases to review the documents. The final product shall be verified with the functionality of the software as specified in the Software Requirements Specification for the product. Also possible bugs or faults should be identified and explain the developer about the same such that the defect can be rectified.

4 SQA Plan Requirements

4.1 Standards

Coding Standard: Naming of code files are to be done properly. Name should be sufficient to indicate what the code inside would be. Code files should be kept in their parent folders so that is looks nice and tidy and easy to transverse. Commenting should be done, so that the other developers can know what functionality the code serves. More of these standards have been provided in the open source contributing guidelines.

4.2 Metrics

KLOC Thousand delivered lines of code is used to measure the size of the software

4.3 Software Development Process Audit

Quality control of this project includes at least a review of all current artifacts for each stage of development. The revisions ensure that the processes and methods of the project development are being met effectively, and risks to the plan of the current project are identified and resolved **The review process includes:**

- A formal review process as mentioned above, at the end of each phase of development. All products of current working phase are presented to team members for review.

- It encourages the developer to freely express disagreements, suggestions and views on all aspects of the software development process.

- Input from project mention should be taken so as to get a second opinion on the product

4.4   Requirements Traceability

In the requirements traceability all the requirements and features are listed in a grid. The features fulfilling the particular requirement are marked in the requirements row. The product review will ensure that all the requirements stated by the client are covered by the features provided in the application.

4.5   Product Reviews

The team will conduct a review in all phases of the project as described in the previous section. This review will determine whether the requirements have been met for every output, check that the product meets the requirements, ensure that the SQA plan has met to check software performance and ensure that acceptance testing is carried out. In addition, the developer will carry out a technical examination after the design phase. All design documents will be used and the developer will check if his / her design meets the requirements.

4.6   Testing and Quality Check

The tests will be carried out according to the system test plan. Test cases would be made to test the functionality of the both the client and customer application. Test report would be generated which would indicate whether the particular test case has passed or failed. It is very important for the team to agree on the same aspects of product quality.. It is the responsibility of the entire team to devote toward a goal of creating a high-quality software. We as a team believe in the phrase, There is always room for improvement therefore we will constantly make efforts to design a better product within the stipulated deadline duration.

5   Appendix A: Glossary

Extension Extension refers to Browser extensions that are being developed in this project. These include Chrome, Firefox and possibly Safari extension.

ReadTheDocs An online site to host documentations, supports VCS.

VCS Version Control System. Used to keep track of changes in a document.

Web App Web Application, a website with interactive features.