**System Test Plan**

**For**

**Anotode**

Team: CS Group-1

Course- CS 301

Instructor-Prof Asim Benerjee

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1 Introduction

1.1 Purpose

Test plan is the project plan for the testing work to be done. It is a collection of test cases or a set of test procedures.This document describes the plan for testing the developed Anotode application system against the software requirements as defined in the Software Requirement Specification Document. The purpose of these system tests is to make sure that the software system developed during the project complies with the desired requirements, both functional and nonfunctional.

1.2 Overview of Product

We designed Anotode application so that users are allowed to highlight a certain piece of text on the web and store it for future references.The data is stored on a secured server.You can later view that collected information using our web app and android app.The basic features of the client side application(android and web) are - Sign-up,Login,Select the lines of text from any web-page,giving tags and comments to the selected text,colouring the selected text. The Anotode application will also provide the client with login records and allow him to see selected lines of text from the any site he visited.

1.3 Target Audience

We perform tasks specified in this document, and provide input and review this document.We tested this in such a way that users/clients will not face any kind of security issues after releasing the product to the customer.

2 Scope

The document mainly targets the manual testing and validating data in report output as per Requirements Specifications provided.

2.1 Test items

We intend to test:

client side application

We need to check that the applications fulfils its objective and verify that all the features specified in the SRS are functional according to the expected result.

2.2 Features to be tested

* Login Module
* Signup Module
* Successful authentication response
* Un-Successful authentication error response
* Successful registration response
* Un-Successful registration error response
* Comment and Tag module
* Error response for empty Comment/Tags
* Colouring of the text selected
* Error response for selecting empty lines

3 Approach

We intend to do testing of Anotode application following a step by step procedure. First we will check the working of every component and function of each module. After every module is covered, we integrate all the modules and test if all the modules and their interfaces are working in coordination. After that we will perform a system testing and see if the system as a whole is working correctly. Then we will check if the project is meeting the user acceptance requirements.

4 Test Strategy

A Test Strategy is an outline that describes the testing approach of the software development cycle. It is created to inform project managers, testers, and developers about some key issues of the testing process. This includes the testing objective, methods of testing new functions, total time and resources required for the project, and the testing environment.

4.1 Black box testing

In black box testing focus is on the functional requirements of the software. It enables one to derive sets of input conditions that will fully exercise all functional requirements for a program without peering into its internal structures or workings.

4.2 Unit Testing

Unit Testing is a software testing method by which individual units of source code, sets of one or more computer program modules together with associated control data, usage procedures, and operating procedures, are tested to determine whether they are fit for use

The purpose of unit testing is to confirm that each module works correctly as a standalone module.The units will be checked for both valid and invalid input whether they give an expected outcome or not.

4.3 Integration testing

Integration testing is the phase in software testing in which individual software modules are combined and tested as a group. It occurs after unit testing. The purpose of integration testing is to confirm that the interfaces between modules work correctly. Integration Testing is performed according to the Software Development Life Cycle (SDLC) after module and functional tests.

4.4 Regression testing

Regression testing is a type of software testing that verifies that the software that was previously developed and tested still performs correctly after the units were interfaced with each other or it was changed and the bugs that were eliminated earlier do not reappear. The purpose of regression testing is to ensure that any kind of changes do not introduce new faults. One of the main reasons for regression testing is to determine whether a change in one part of the software affects other parts of the software. Regression Testing has traditionally been performed by a software quality assurance team after the development team has completed work

4.5 System testing

System testing is performed on the entire system in the context of a Functional Requirement Specification.The purpose of integration testing is to detect any inconsistencies between the software units that are integrated together.The aim of system testing is to ensure that the software product is made according to the requirements of the client and does indeed fulfil the intended purpose. This testing confirms that the entire software system as a whole works correctly and also all the desired functionality is present in the system that has been built.

4.6 User Acceptance testing

Acceptance testing will be done to confirm that the software system built satisfies the user defined acceptance criteria that would establish that the built software is acceptable by the client. This may be done at the client site prior to actual handover of the software system.

5 Item Pass/Fail Criteria

This section specifies pass/fail criteria for the tests covered in this plan.An item will pass or fail based on the testing phase result.

* The pass criterion for our system is:
* The output of the feature is exactly the same as the expected output.
* Execution occurs with no errors and in a optimised and efficient way.

If the above criteria are not met, the test team will assess the risk, identify actions with which it can be improved further and provide a recommendation.

5.1 SUSPENSION CRITERIA

If any of the functionalities described in the SRS do not work, testing will be suspended.

5.2 RESUMPTION CRITERIA

Criteria the implementation of which should cause a resumption of software testing after its suspension.

6 Test Deliverables

Test Deliverables are the artifacts which are given to the stakeholders of software project during the software development lifecycle.

* The following are the test deliverables:
* Test Plan Document
* Test Cases
* Test Reports- covers system test results, problems, summary and analysis.
* Problem reports and corrective actions.

7 Testing Tasks

The testing tasks mainly include writing test plan, creating test cases, conduct tests and evaluate results, and document test results.

8 Environmental Needs

The customer-side application, which is going to accessed over the Internet by the general public.The hardware required for testing the application will be any device that supports android/web operating system.

9 Responsibilities

|  |  |
| --- | --- |
| **Name** | **Responsibility** |
| SUNIL YEDLA | Test cases, Test reports |
| AVI ARYAN | Test cases, Test reports |
| SAURABH NITNAWARE | Test cases, Test reports |

10 Schedule

Following is the list of tests scheduled to be performed on the intended product:

Unit Testing: This will be done on the specific unit that will be developed and hence will be done simultaneously and independently after each unit is coded.

* Integration Testing: This will be performed for each module when setup and run as a combination of several units.
* Regression Testing: This will be performed will the system is being integrated as a whole.
* Black box Testing : To ensure that all the functional requirements are being satisfied by the software.
* System Testing: To ensure if the software as a whole works correctly and is as per the client requirements.
* User acceptance testing :Will be done by the client to confirm that the system satisfies the user acceptance criteria.

The following tentative schedule will be tried to achieve:

Test execution is expected to last no more than 2-3 days and to start immediately after the test plans have been approved and the application is functional.Producing the test report is expected to be completed within 3 days of completing the test execution phase.

11 Planning Risks

The plan for testing is subjected to change if any other testing methodology is found suitable for the project in addition to the methodologies currently selected for the project.Late delivery of the software, hardware or tools.Lack of availability of required resources like hardware, software, data or tools might lead to delay in the testing phase.