



Online Registration App

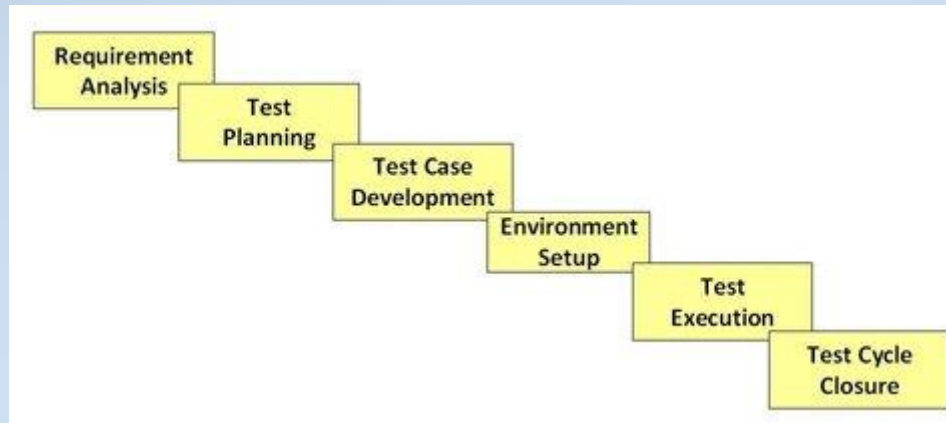
Group 3

Introduction

- online registration app for students from grade 1 to 12. This is the platform where Parents of guardian register their children to enroll in school.
- The purpose of this app is to eliminate the manual registration process used in schools to save time and costs.
- Monitor the performance of students in class or at school.

Software Testing Life Cycle

- **Software Testing Life Cycle (STLC)** is a sequence of specific activities conducted during the testing process to ensure software quality goals are met. STLC involves both verification and validation activities.
- There are following six major phases in STLC Model:



Phase #1 : Requirement Analysis

Testing Requirements

Our main priority testing is based on Security, Usability and Functionality testing.

E.g, Email Verification, Password Validations, Accessibility and responsiveness

User Stories

- User must be able to register and verify their email address via link
- User must be able to create a Profile page /Update profile
- User Should be able to select School where they want to enroll their children
- User can register multiple children under their profile
- User must be able to Upload documents
- User must get a Confirmation message of whether the application was unsuccessful or not.

Phase #2 : Test Planning

Model	<p>Waterfall is a sequential model that divides software development into pre-defined phases.</p> <ul style="list-style-type: none">• Requirements are not changing frequently• Application is not complicated and big• Project is short• Requirement is clear• Environment is stable
Time Frame	2 Weeks
Cost	R100 k
Stakeholders	System Admin, Developers, Testers

Test Planning Continue...

Testing tool	Selenium is the most popularly used freeware and open-source automation tool. The benefits of Selenium for Test Automation are immense. Importantly, it enables record and playback for testing web applications and can run multiple scripts across various browsers
Plan Tests	<p>We must perform API testing, unit testing, integration testing and system testing for the following reasons:</p> <ul style="list-style-type: none">• Api testing: Sending and receiving notification from users• Unit testing: is done for module being tested i.e Personal details entity, child details etc.• Integration testing: for integrating all modules• System testing: for testing the entire software application prior deploy

Phase #3: Test case Development

- **Functional Testing:** Testing the features and operational behavior of a product to ensure they correspond to its specifications.
- **Security Testing:** Security Testing involves the test to identify any flaws and gaps from a security point of view.
- **Usability Testing:** the application flow is tested so that a new user can understand the application easily.

Test Case type	Description	Test Step	Expected Results	Status
Functionality	Are should not contain numbers and Special Character	Input Name with and Without Numbers and Special character	All Characters in the request should be appropriate	Pass or Fail
Security	Verify Password rules are working	Create password in accordance with rules	The user's password will be accepted if it adheres to the rules	Pass or Fail
Usability	Ensure all links are working Properly	Have users click on various links on the page	Links will take users to another web page according to the on page URL	Pass or Fail

Phase #4: Test Environment Setup

- A testing environment is a setup of software and hardware for the testing teams to execute test cases.

Areas	Description
Test Server	<p>Every test may not be executed on a local machine. It may need establishing a test server, which can support applications.</p> <p>Fedora set up for PHP, Java-based applications with or without mail servers</p>
Network	<p>Network set up as per the test requirement. It includes, Internet setup, LAN Wifi setup, Private network setup</p>
Test PC	<p>For web testing, we need to set up different browsers for different testers.</p> <p>For Mobile App, We need Xcode, Android Studio, simulator/ Emulator installed and alternatively Android and Apple Phone</p>
Bug Reporting	<p>Bug reporting tools should be provided to testers.</p> <p>We can use different bug tools like Jira etc.</p>
Test Data	<p>Testers or developers can copy Production data to their individual test environment. They can modify it as per their requirement.</p> <p>This helps the tester, to detect the same issues as a live production server, without corrupting the production data.</p>

Phase #5: Test Execution

- Understand the manual creating of the application
- Record the creation of the application using a browser-based tool e.g selenium etc.
- Write a test suite that will create an online application.
- Map defects to test cases in RTM
- Document test results, and log defects for failed cases

Deliverables


- Completed RTM with the execution status
- Test cases updated with results
- Failed test were reported to developers using bug reporting tool e.g. JIRA

Phase #6: Test Closure

- Project was done on given budget
- Project was completed in due time
- All User requirements were Met
 - User can register and Login to App
 - User can upload documents
 - User can create profile
 - User can enroll multiple children under one profile

Test Summary

- All test cases were done, and all defects were reported and resolved / fixed

Project name	School Registration	
Module Name	Registration	
Created by	Jacob	
Date Creation	31-Aug-21	
Date Review	31-Aug-21	



Test case id	Test Scenario	Test Step	Expected results	Status
TC_name_#1	Verify if Characters in the request is appropriate	Enter name Peter	Success	Pass
		Enter name Peter228	Message" name cannot include numbers "	Failed
TC_pass_#1	Verify if Password is strong	Enter password Zens@r123	Success	Pass
		Enter Password: test1	Must contain at least one number, one uppercase, one lowercase letter and at least 8 or more characters	Failed
Tc_doc_#1	Verify if Application only accept PDF, PNG, Docs, Jpeg documents and less than 2 mb	Upload 540kb PDF	Success	Pass
		Upload 5mb PNG	Maximum upload document is 2mb	Failed
		Upload 1mb mp4	Invalid Document Format	Failed