

# Elaboration Phase 1

Testenium - Tool for testing websites

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**Abstract**—This document is designed to illustrate components of Elaboration phase 1 of the project. This document shows objective, deliverables, test strategy, team drawbacks and mitigation, and product documentation draft.

## I. OBJECTIVES

- The objective of the project is to create a tool that will perform various tests on a web application.
- To Test web applications according to certain Ontario's law of web accessibility.
- To create a test tool that is easy to use and covers elements of website functional testing.
- An easy and accessible tool for new website developers to test website for basic functionality while developing the website.
- To provide testing tool which is accessible to non- testers. User does not need to create test scripts.
- No Sign Ups are required
- No specific hardware requirements.

## II. DELIVERABLES

- The tool will take website as an input and create a report as an output detailing the pass and failed test cases.
- A checklist option Ontario Law is included when user will select it the script in the background will check the input website if it is as per the accessibility law or not.
- There are various options that a user can simply select like broken link, headers and footer settings, to test for functionality.
- The scripts are inbuilt.
- The tool can simply take the Website URL and run selected test scripts in the background to provide detail report of pass and failed test cases.
- Anyone can download the tool and use it without any sign-ups.
- Run on cross browsers.

## III. OUTLINE OF PROJECT PROGRESS

Redmine is used for project management which is helping us is to track the progress. The initial planning and the inception artifacts are done. We are working on phase1 of designing and testing high risk functionality.

- Goals: The goals have been set on Day 1 after finally deciding to develop Testenium.

- Status: Done
- The basic scope of project has been laid out by the team. However, we are discovering that we can enhance the scope while designing the product. The team also need to increase the scope of work to be invested on the project.
- Status: In Progress.
- Requirements.
- Status: Done
- Learning website accessibility test cases- All team members have picked 3 different areas of making website more accessible and are learning about Ontario Law's for website accessibility.
- Status: In Progress
- Learning frameworks and languages- Learning various aspects of script writing and python so that we are able to code efficiently.
- Status: In progress
- Testing high risk Cases- Created a script file that test any URL for broken link.
- Status: Done
- Plans for next week- Developing the UI Creating databases

## IV. TEST STRATEGY

### A. Introduction

The purpose of the test strategy for the Testenium is to determines strategic approach of the test effort and tasks related to test planning, test types, and test execution.

### B. Audience

The audience for this document includes system development team members, Testenium project team members and instructor.

### C. Objectives

The key objectives are as follows:

- Determining the significance and the critical nature of the application system to the business.
- The types of tests required for each testing task.

#### D. Benefits

The Testing Strategy can provide the following benefits:

- For faster development of testing requirements
- Provides earlier identification of testing requirements
- Independence of testing from development tasks and resources
- Well-defined tests progressive and tasks.

#### E. Test Approach

The test approach that defines the scope and general direction of the test effort. Also providing High level description of important issues that need to be covered. The testing phase, shall comprise a detailed test plan to be developed that identifies the testing requirements specific to that phase. The items to be identified in each test plan shall are :

- Test Items
- Test Execution Procedures
- Test Schedule
- Test Environment

#### F. Testing Tasks

Fully In Scope: Functional and Regression Testing Partially in Scope: Cross Browser Compatibility, Performance testing, Out of Scope: Automated Regression, all forms of Non-Functional, Accessibility Compliance Testing, Security Testing, User Documentation Review.

#### G. Identifying and Justifying Tests

- Unit Test - The testing of the changed or newly added code in the system is tested. Its purpose is to confirm the functionality of that code component.
- Integration Test - Affirms that each bit of the application connects as structured and that all usefulness is working. Incorporates cooperations between all layers of an application, including interfaces to different applications, as a total start to finish test of the functionality.
- User Acceptance Test (UAT) - Is to reenact the business condition and underscore security, documentation, and regression tests. UAT might be performed by an outsider in situations where the general client network is enormous and may give various objectives and targets to acknowledgment testing necessities. UAT will be led to pick up acknowledgment of all usefulness from the client network. UAT will confirm that the framework meets client necessities as indicated.
- Beta Testing - Where the users try the system when it is in production mode and report defects. Defects recognized during beta testing will be assembled into two classifications: those with noteworthy effect that

may not legitimize quick execution and those that can be effectively coordinated into the task.

#### V. TEAM CRITIQUES AND DRAWBACKS

- Not all tasks can be effectively done with team work and involvement.
- Involving all team members into drafting the whole document at the same time creates information scattering and loss of thoughts including time consumption.
- Too many vessels in the same sink, make more noise.

#### VI. MITIGATION PLANS

In order to avoid such over flow of information by all team members, its better to split documentation work into parts among members equally and drop all your attention to your part of the document.

Advantages -

- Time saving.
- Avoids vague and incomplete thoughts.
- Avoids scattering of ideas.

#### VII. PRODUCT DOCUMENTATION

##### A. Objectives

- Vision -  
The Vision of our work is to create a tool that is used to test websites according to the test cases that are built in the tool. The tool scans the website and provides results of the successful and unsuccessful test cases through a test report.
- Goals -  
The product goals are listed below:
  - \* Tool should be capable of scanning the website URL. Metric - 10 Test iterations.
  - \* Tool should be capable of generating a report with passed and failed test cases. Metric - 10 Test iterations.
  - \* Become top rated tool to test websites. Metric - top rated in market.
  - \* Avoids scattering of ideas.
- Initiatives -  
Initiative 1 - The tool checks presence of working and broken links by scanning website.
- Person(s) -  
This product is for website developers who wants to run a quick testing on their developed website.

##### B. Features

- Feature - Broken Links
- Description - The tool scans the website and provides a report containing list of hyperlinks in the website that are working and broken. Broken link will include the error code of the link.

- Purpose - User can easily test if all the links in his website are in working status by simply running the tool.
- User Problem - Its a pain to manually traverse through all pages of the website and spot each and every hyperlink and check for its working status.
- User Value - This tool will do the job of scanning the website for all its links and providing working status of every link beside it for the user to check from the report.
- Out Of Scope - Does not fix any issue for the user. Only identifies the successful and unsuccessful test cases.

#### D. Release

Release	Product Name - Testenium
Date	Release Date - 29th Feb 2020
Initiative	Initiative 1 will be released in the mentioned date.
Milestones	Release milestones - 2
Features	Testing presence of broken links

#### E. Future Work

Future features	Purpose	Priority	Timeframe
Text alternatives/image caption	The tool will test the website for presence of text alternatives/ image caption	High	2 weeks

#### C. User Flow and Design

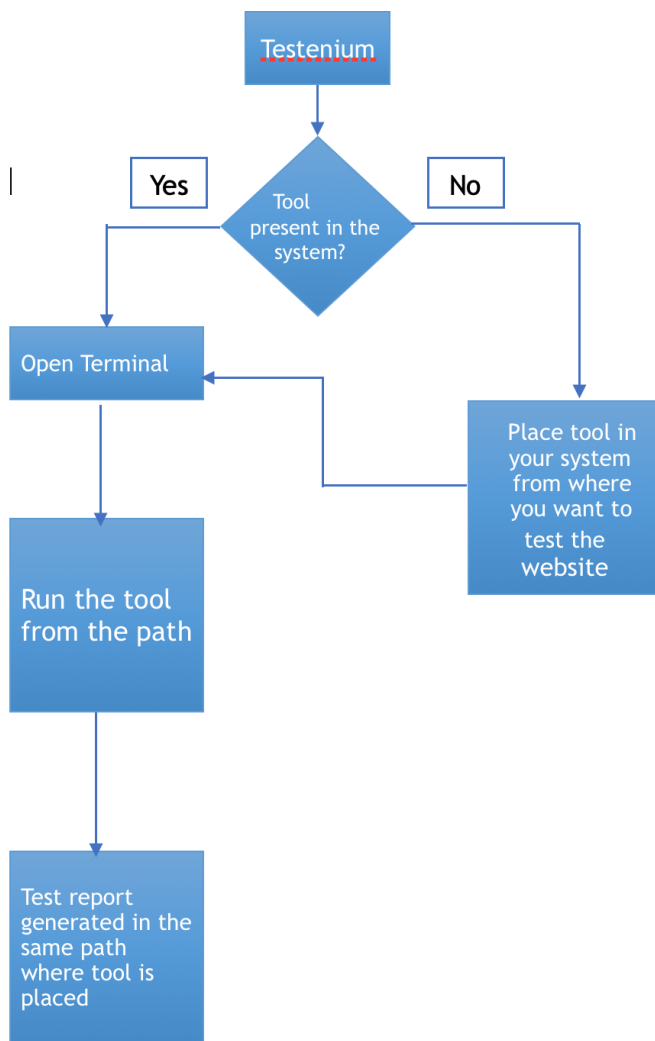


Fig. 1. User Action Flow of the tool.