**REPORT 1**

## Project Information

* Project name:  **Website Checker System**
* Project Code: **WCS**
* Product Type: **Website Application**
* Start Date: **September 12nd, 2018**
* End Date: **--**

## Introduction

Nowadays, the website design and development is rising rapidly. Businesses use the website as a main channel for providing information, products, and services to partners and potential customers. A good website does not only have a good look but also needs to operate correctly. That’s why web development is so important to every company, even brand-new startups. If only concerned with the design of a website and not the functionality – a business won’t be as successful at attracting new users to their website because they’ll be lacking in the area of user experience.

In this document, we introduce a solution for web owners: a web application called is Website Checker System. The Website Checker System will be a useful assistance to enterprise ensuring the quality of the information their website provides, how easily their users can navigate the site, and how functional their website is. This document also describes our working process in 4 months including our perspective on the system, component designs and detailed core workflows.

## Current Situation

The higher a website's site quantity, the more complicated the test process is. Assuming entire processes are manual operations, it's certainly costly, time-consuming. In many cases, there are underlying issues: JavaScript errors, bad server behavior, responsive on multi devices.

There are many reasons which cause negative effects on operational business. Slow speed, low user experience, or risks such as broken links, missing files, etc. Also, the number of potential customers of enterprises may decrease when their website doesn't navigate well. Mistakes in spelling, grammar also directly influence the enterprise's trademark.

## Problem Definition

Below are the disadvantages of the current situation:

* The Website owner can’t ensure that entire their website run smoothly or function correctly as they expected.
* Broken links, broken pages or missing files can’t be immediately detected.
* Some resources in website content are not up to date or no valid anymore.
* Technical properties: server behavior, page redirection aren’t clearly displayed. So that, Website owner not able to track the quality of their website in details.
* Even in critical information, spelling and grammar mistakes still exist.

Above problems may reduce the effectiveness of product sale, business ads, business’s trademark. A poor quality website reflects on an entire brand.

## Proposed Solution

Building a web application known as an automatic test system. It helps website owner tracking the entire process day by day. The following workflow and features should be implemented:

### **5.1 Feature functions**

* Detect quality issues like spelling and grammar mistakes, missing files and broken links.
* Measure and improve the user experience of enterprise's website. Check that pages are whether fast, mobile-friendly, and work correctly or not.
* Ensure compliance against enterprise’s own standards, including brand and legal.

### Discover what content, technology, and resources enterprise's websites use.

### **5.2** **Advantages and disadvantages**

The advantages and disadvantages of the proposed solution:

* **Advantages**:
* Test many things in one place.
* The system will promptly alert when something is in the warning state.
* Monitor website at any time, with explicit information on visual dashboard. Measure and improve the quality of website.
* **Disadvantages**:
* Only support for website in English.

## Functional Requirements

Function requirements of the system are listed as below:

**6.1 Admin:**

* Admin can create, activate, de-activate or update account.
* Amin can manipulate on each repository: website’s dictionary, warning word list, etc.

**6.2 Website Owner:**

* User can check spelling and grammar mistakes.
* User can detect the broken element on website: broken links, broken pages.
* User can detect missing files in each page.
* User can scan warning words and check where they appear on each page.
* User can check mobile layout.
* User can know speed of website: how long to respond, when page become usable, when load completed.
* User can detect JavaScript errors on each page.
* User can check the favicons website using: missing, invalid, conformity.
* User can know which pages that collect user’s cookie & purpose of using.
* User can track the server behavior.
* User can view all of page details, including URL path and its HTTP response code.
* User can list all of the contact details such as email, phone existing on the website. User can know each defined contact information appearing on which pages. Then, user can confirm those contact whether valid anymore.
* User can test HTTP Redirection codes.
* User can export data to reports, and can review again by listing all history reports.

## Role and Responsibility

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