GRAND CANYON UNIVERSITY™

Project: Overwatch SEO

Author: Rhese Soemo

Assignment: CST-451 Capstone Project Requirements Document

School: Grand Canyon University

Instructor: Professor Mark Reha

Revision: 1.0

Date: 10/16/2022

ABSTRACT

Overwatch SEO is a software technology developed to speed up SEO data collection. Search Engine Optimization, or SEO, is the process of getting search engines like Google or Bing to rank a website higher in their search results. From the team's personal experience, in working the in the SEO industry, much time is lost as SEO Analyst's gather information. The process generally starts with an SEO Analyst requesting important data about a website from multiple services. After each service sends back a report and the data is available to the SEO Analyst. However, more time is lost as the SEO Analyst combines different pieces of data into one spreadsheet in order to make the information useful. The purpose of Overwatch SEO is to develop a technology that will expedite this process through automation.

Overwatch SEO will speed up the data collection process as an all-in-one data collection program. When a user starts data collection, the program begins requesting data from multiple services. The program will then wait for the reports to be generated and sent back to it. Once Overwatch SEO receives the reports, it will then combine the different data points together before displaying the data to the user. The user can then use this information by reading it from the program or they then can choose to create a CSV file of the latest data, which can easily be transferred into a spreadsheet program of their choice.

History and Signoff Sheet

Change Record

Date	Revision	Author	Revision Notes
10/9/2022	1.0	Rhese Soemo	Initial project requirements for review and discussion

Overall Instructor Feedback/Comments

Overall Instructor Feedback/Comments

Integrated Instructor Feedback into Project Documentation

☐ Yes ☐ No

© 2020. Grand Canyon University. All Rights Reserved.

© 2020. Grand Canyon University. All Rights Reserved.

TABLE OF CONTENTS

FUNCTIONAL REQUIREMENTS **5**
NON-FUNCTIONAL REQUIREMENTS **6**
TECHNICAL REQUIREMENTS **7**
LOGICAL SYSTEM DESIGN **8**
USER INTERFACE DESIGN **9**
REPORTS DESIGN **11**

© 2020. Grand Canyon University. All Rights Reserved.

Functional Requirements

See the "Functional Requirements" sheet in the "Spring Back Logs" Excel file for Functional Requirements

© 2020. Grand Canyon University. All Rights Reserved.

Non-Functional Requirements

See the "Non-Functional Requirements" sheet in the "Spring Back Logs" Excel file for Functional Requirements

© 2020. Grand Canyon University. All Rights Reserved.

Technical Requirements

Use Cases

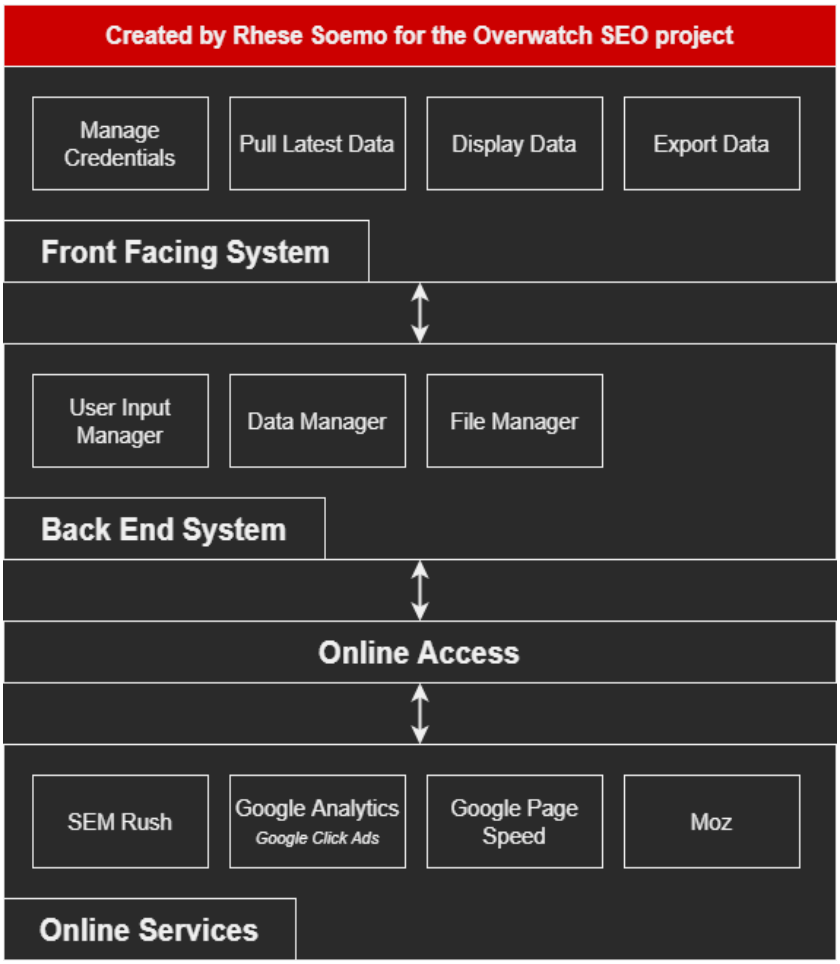
Overwatch SEO will primarily be built on top of C# and its accompanying .NET framework. In order to build the frontend GUI for the application, the team will utilize .NET MAUI.

Technology or Tool	Approval Date	Justification
C# 10.0 & .NET 6.0		To develop the main backend of the application
.NET MAUI 6.0		To develop a frontend GUI driven application so that users can easily use the end product on their desktop environments
Visual Studio Community 2022		To develop efficiently on C# and the .NET framework with.
Postman v10.0.29		To test external REST API services.

© 2020. Grand Canyon University. All Rights Reserved.

Logical System Design

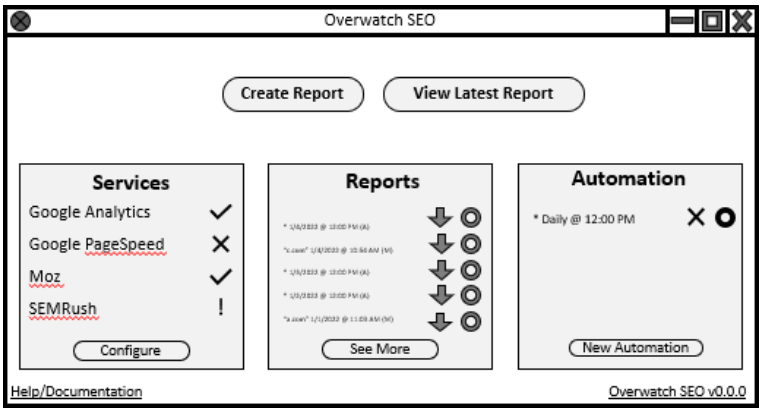
The following is the design of the high-level solution of Overwatch SEO:



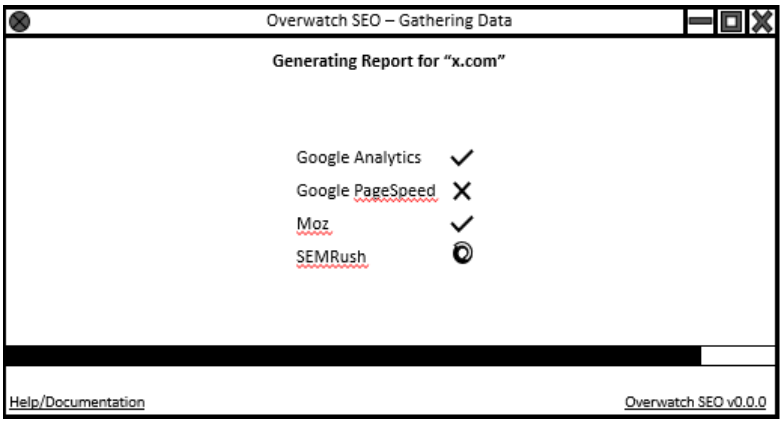
Overwatch SEO will primarily run on the normal system level of a computer. However, it will require online access as well as being developed as two central systems. The first system is the front facing system that the user interacts with, while the second is the backend where the logic runs. By developing the frontend as a separate system to the backend, it will allow possible future iterations of Overwatch SEO to swap in more user-friendly frontends.

© 2020. Grand Canyon University. All Rights Reserved.

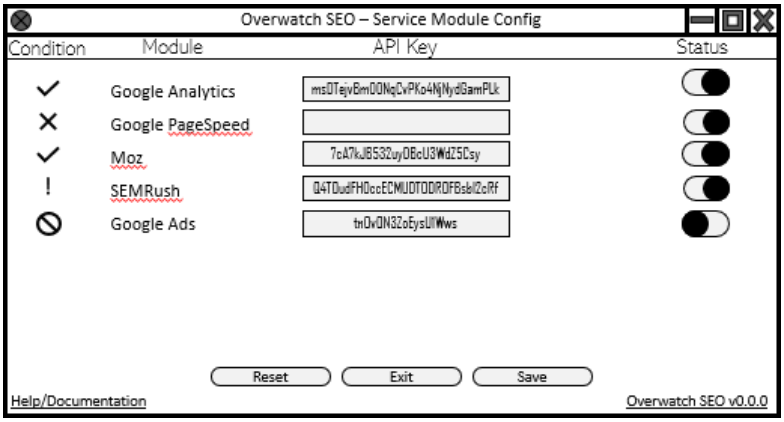
User Interface Design



Main Menu

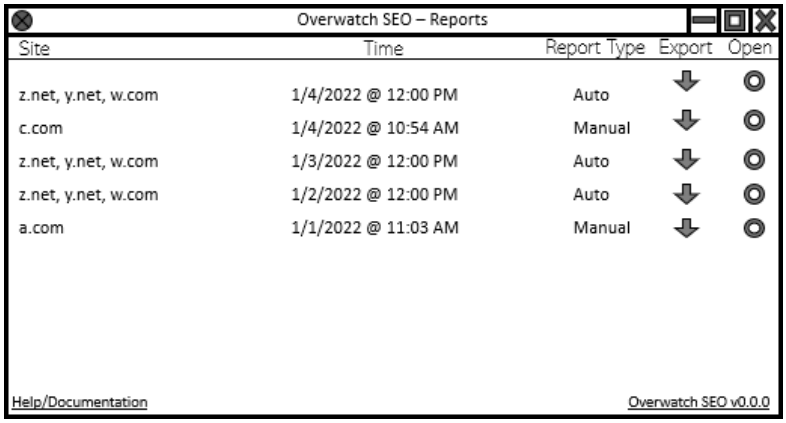


Generating a Report

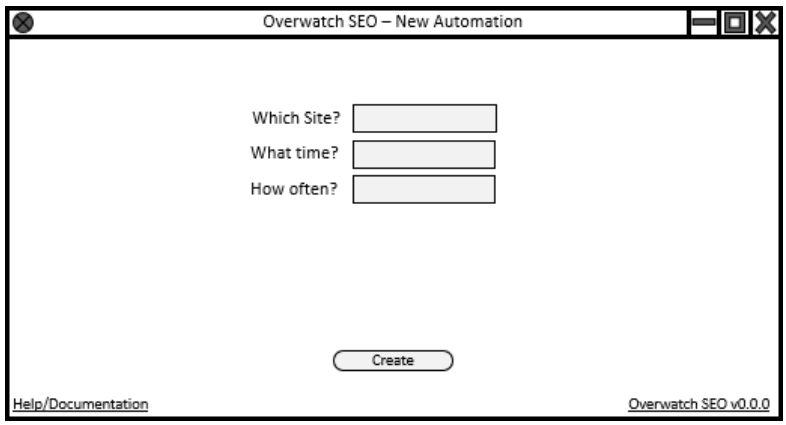


Service Module Configuration

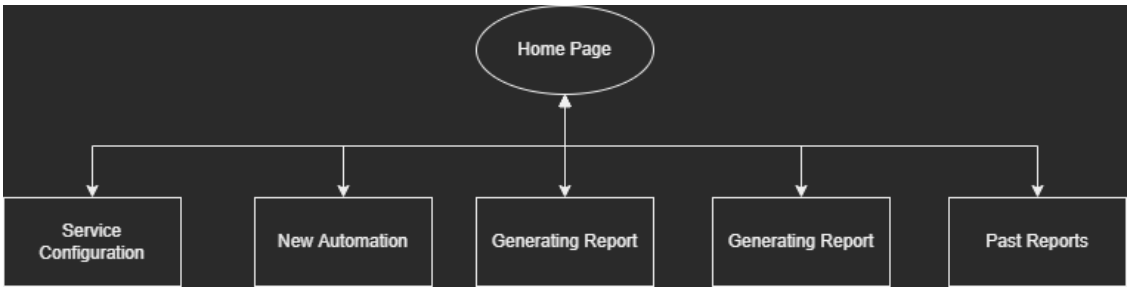
© 2020. Grand Canyon University. All Rights Reserved.



Past Reports



New Automation



Overwatch SEO's Application Sitemap

© 2020. Grand Canyon University. All Rights Reserved.

Reports Design

Website Scan Reports

Site	Date	Time	DA	PA	Overall Sessions	Organic Sessions	Desktop Speed	Mobile Speed	Top 3 Pages	Toxic Domains	Errors
x.com	10/10/2022	5:00 AM	50	60	200	150	90	40	5	10	55

© 2020. Grand Canyon University. All Rights Reserved.