



Sri Lanka Institute of Information Technology

Faculty of Computing

Department of Information Systems Engineering

**IE4040: Information Assurance & Auditing**

## **Assignment**

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## **01. INTRODUCTION**

### **01.1. What is a Website Audit?**

A website is like your car's engine. It drives your business forward. But without the appropriate service or inspection, it may cause deterioration or damage. Just like your vehicle, early detection and repair of problems can save on expensive maintenance costs and provide the best performance.

Many website audits focus solely on search engine optimization (SEO) and off-page technical factors. It makes sense. If your business can't be found by search engines, you'll never build the traffic you need to attract prospects and customers. That SEO is a critical component of a website, we can't forget that websites are built for users.

### **01.2. Why business owners should conduct a website audit?**

Basically, a website audit helps you identify if your site is optimized in a way that helps you achieve goals associated with traffic and what areas you can improve upon to boost performance to hit those goals. There 3 main factors.

- Website or Attends your proper use experience for visitors and Its how quality of website.
- Proper website audit cell for fine broken tags each our main functionalities navigation.
- The main point ensures data protection with the proper website or audit in order to do those.

### **01.3. What is the Website Audit Checklist every business should follow?**

Over the years, we've conducted hundreds of search engine optimization audits. And in the process, we've found that the vast majority of websites have several problems preventing them from ranking well in the search engines. So, I thought it would be helpful to provide a list of the major factors we review when auditing client websites. Then there are lot of ways,

- Advanced Content Audit / including, Backlink Audit / Links to third parties
- Visitor's User Experience audit / UX, Search Engine Optimization audit / check google analytics SEO score / Google indexing / check What Is Your Website "Quality Score"
- Mainly Vulnerability and security checks scans

## 02. INTRODUCTION IN TENABLE (NESSUS ESSENTIALS)

02.1. We are using “Tenable Nessus Essentials” security scanning tool.  
It's Freely available to download.

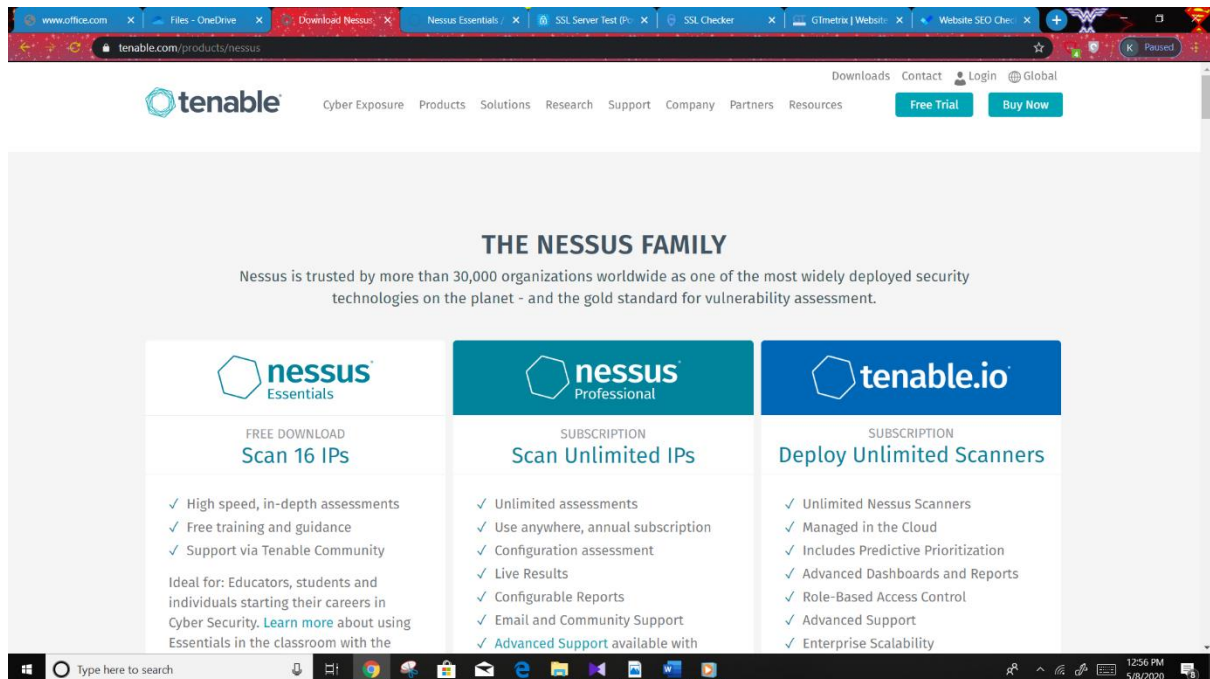


Figure 1 : Nessus Product Home Page

02.2. It's very secure than all other competitors.

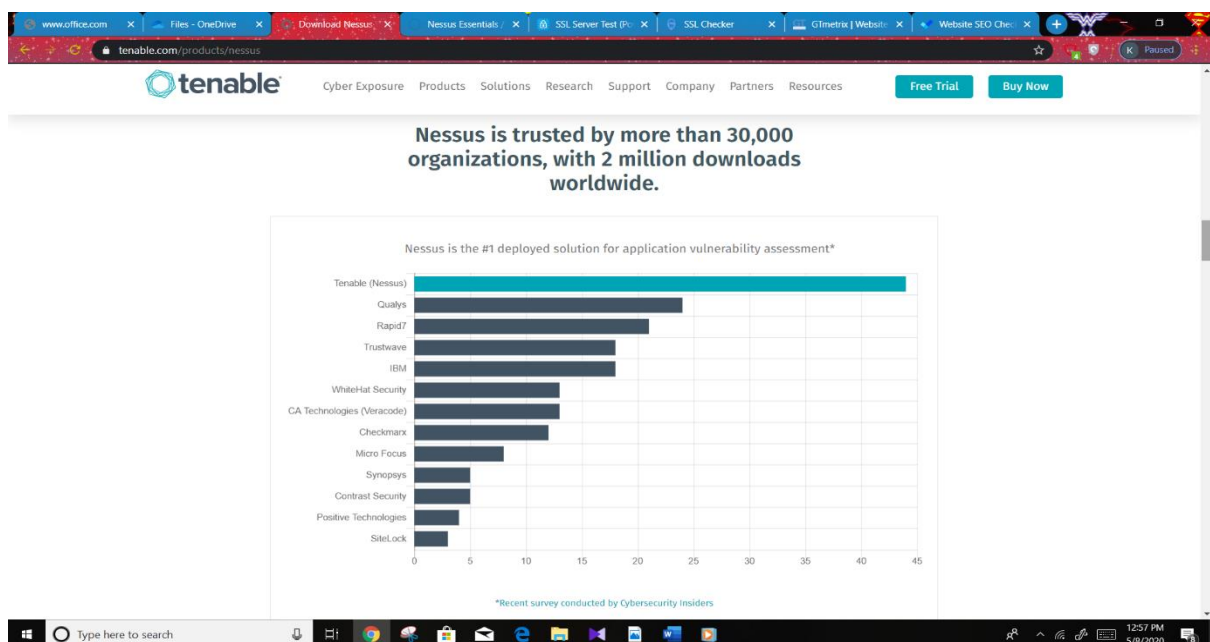


Figure 2 : Secure of Nessus

02.3. It has multiple testing types.

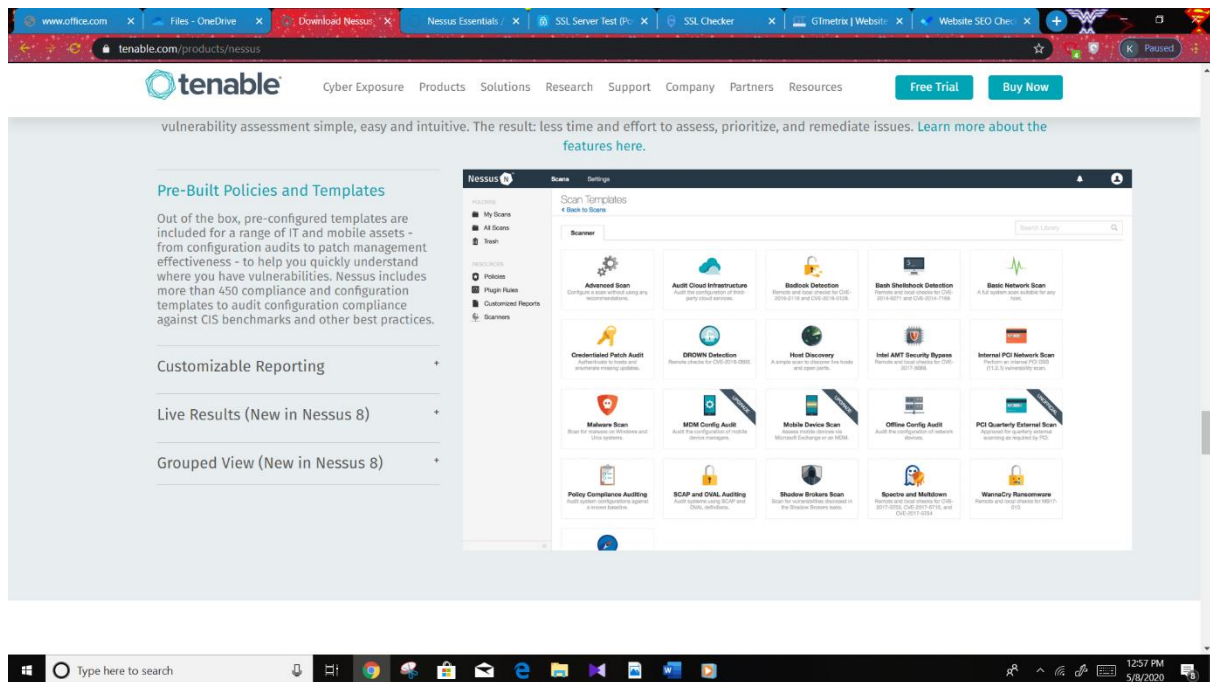


Figure 3 : Nessus Scanning Types

### 03. AUDIT OF SLT WEBSITE USING NESSUS ESSENTIALS

#### 03.1. Firstly, Logging the “Nessus Essential” profile.

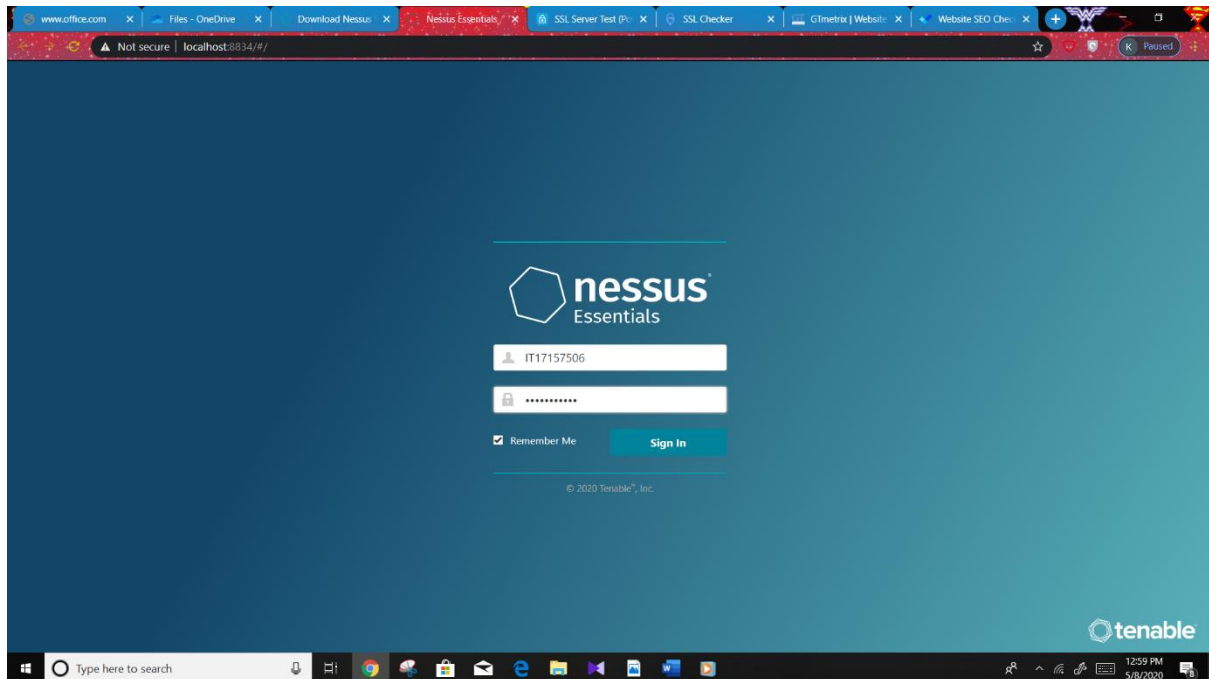


Figure 4 : Nessus Logging Page

#### 03.2. Then create a New Scan and Let's audit SLT website, here we use web application template to test scan in audit SLT.

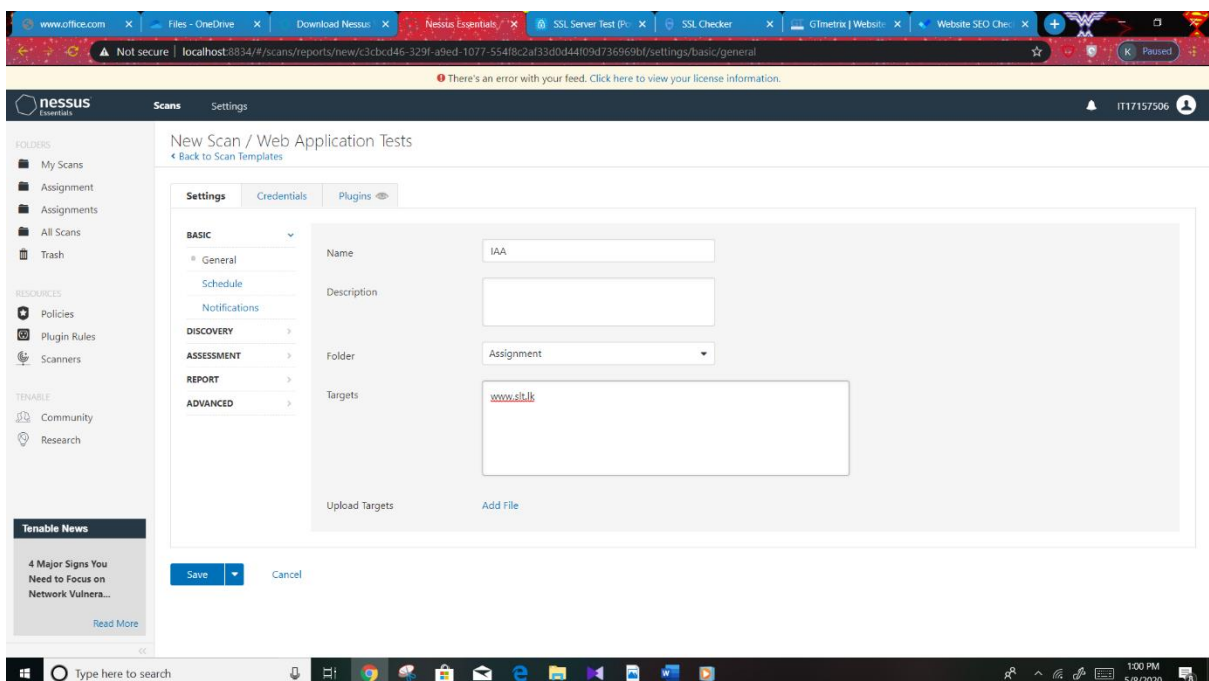


Figure 5 : Scan Profile Template

### 03.3. Then executing the plugins for website scan.

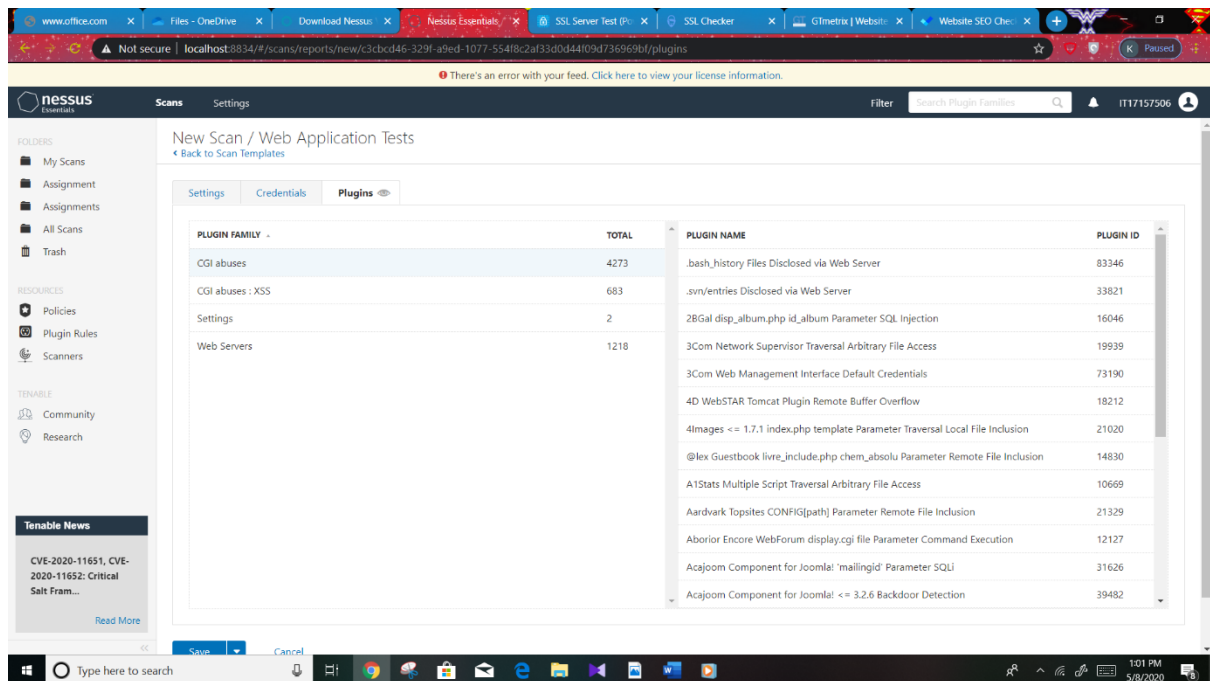


Figure 6 : CVs & Plugins

### 03.4. Then create a new scan under the “Assignment” folder.

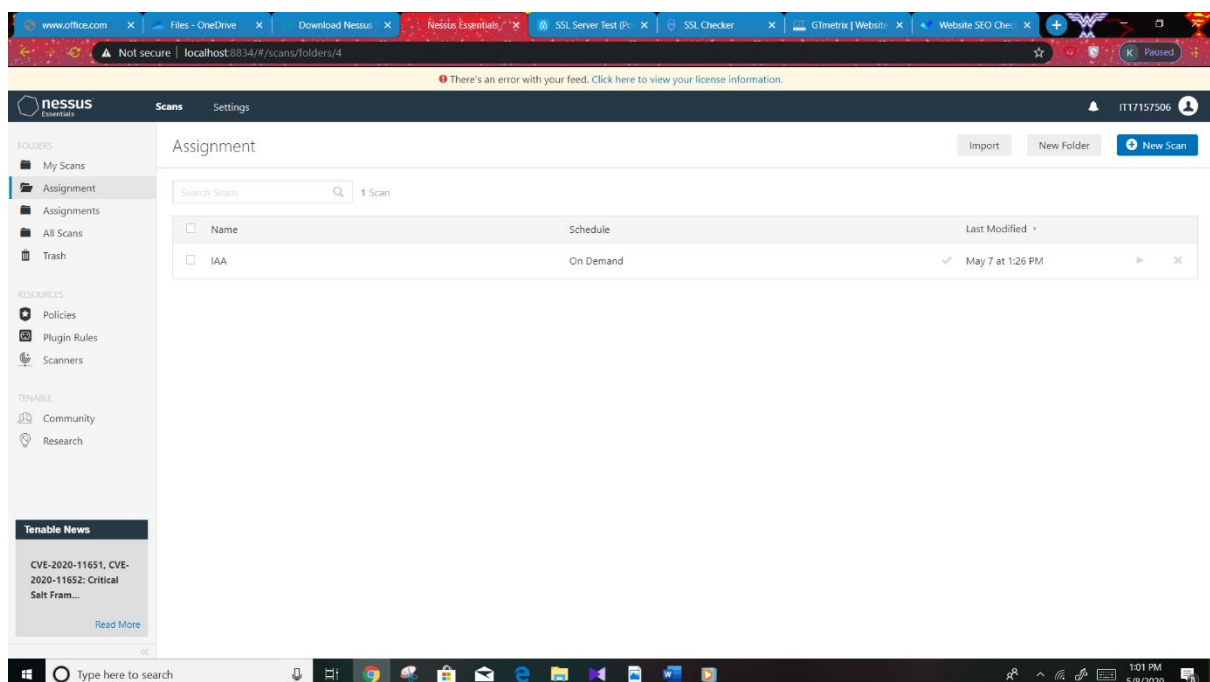


Figure 7 : New Scan "IAA"



### 03.5. After the Scan progress we have a summary of scan.

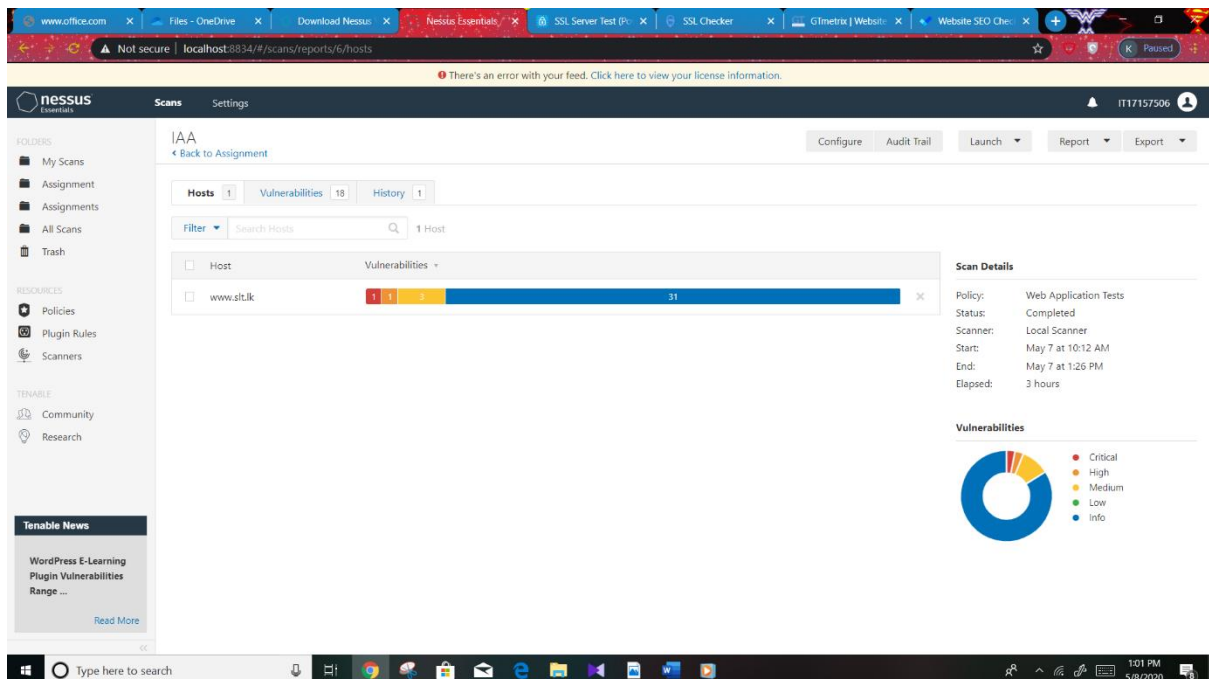


Figure 8 : Final Scan Progress

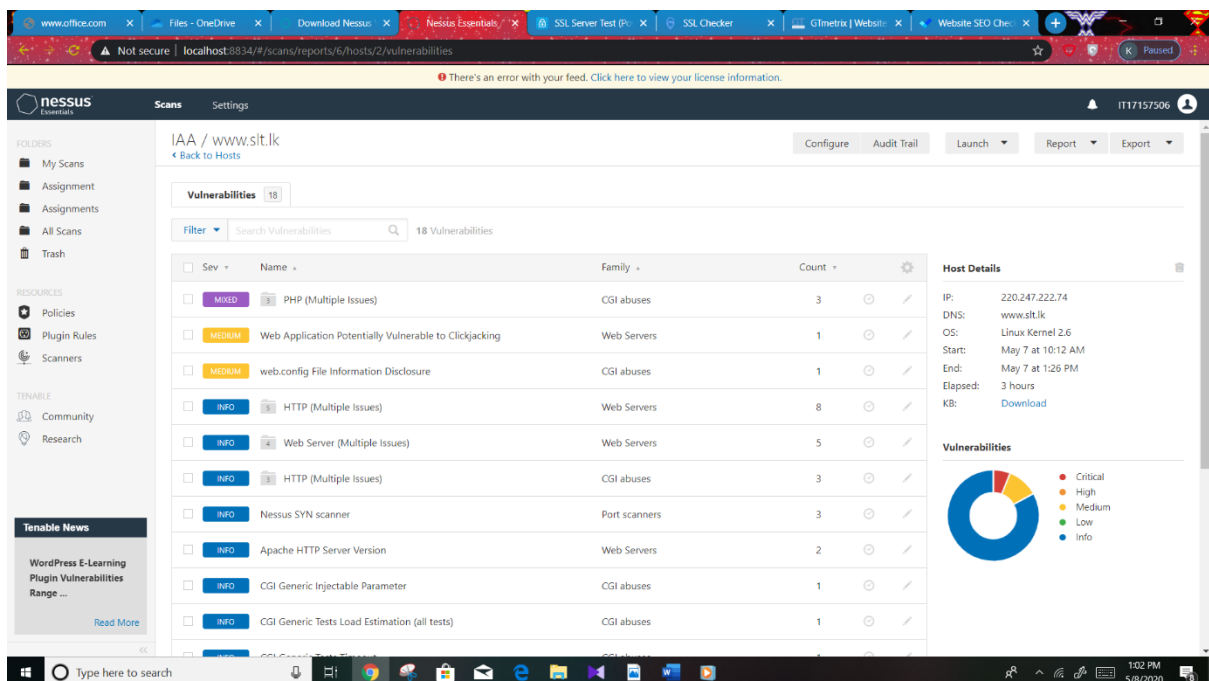


Figure 9 : Inside in Final Scan Progress

### 03.6. This is Scan summary Report.

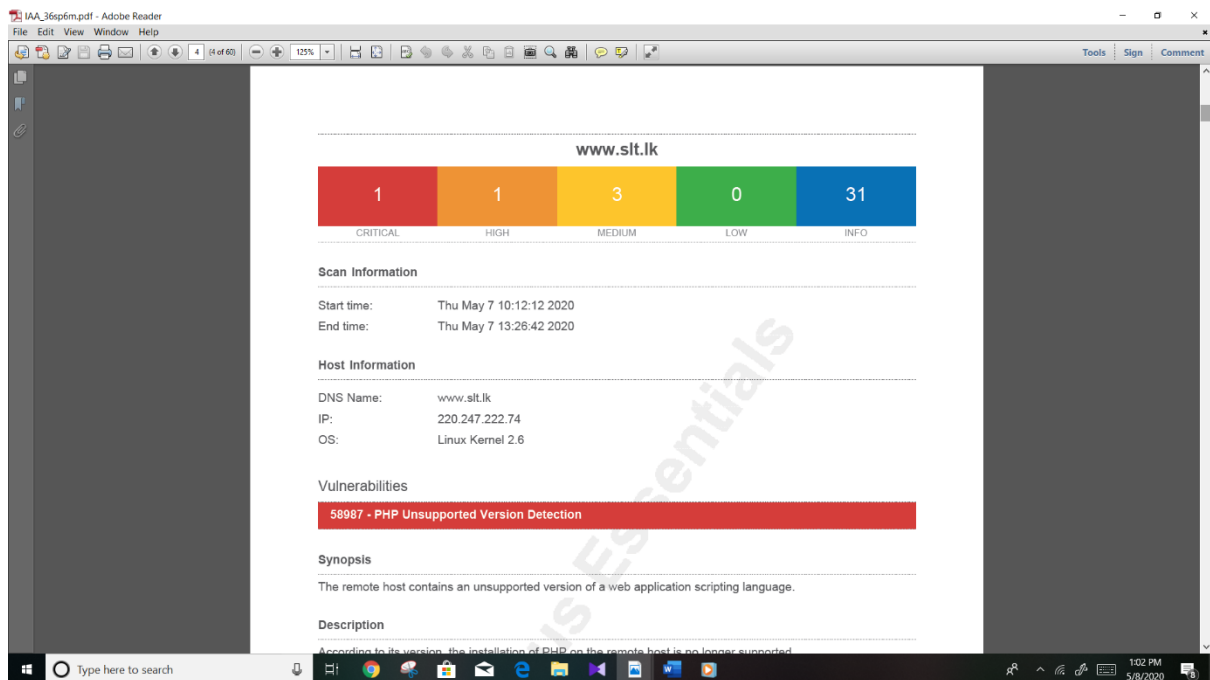


Figure 10 : Scan Report

### 03.7. These are the findings of Vulnerabilities, Descriptions and Recommended Solutions.

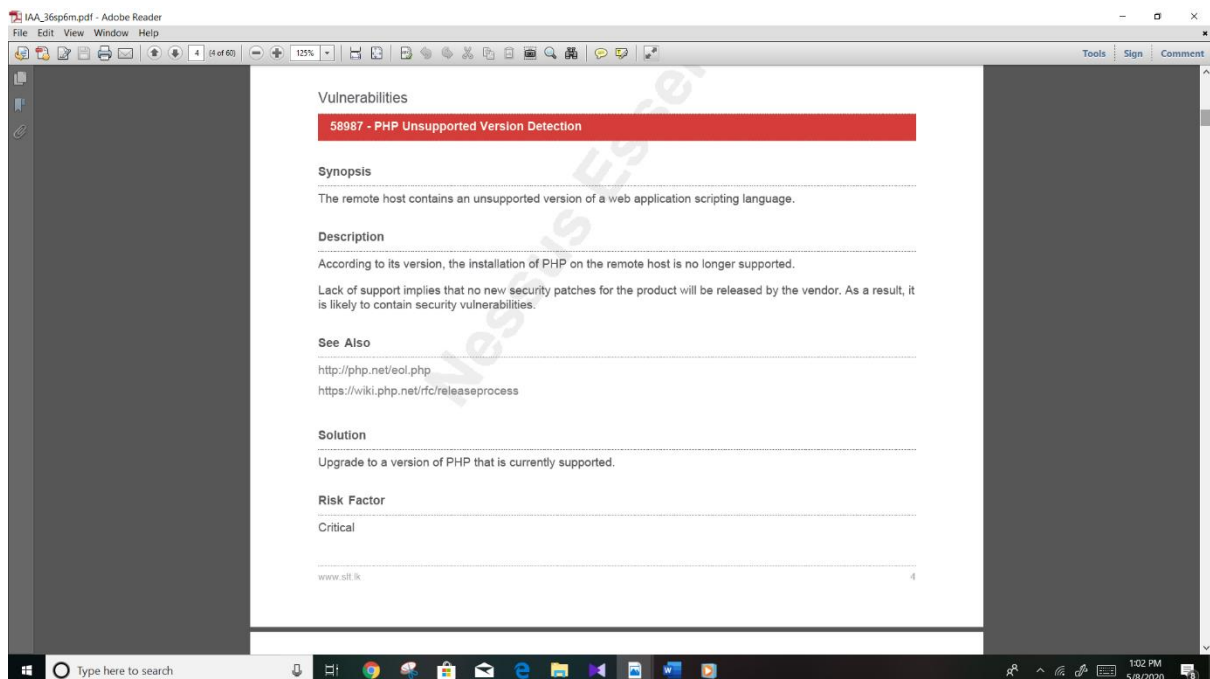


Figure 11 : In detailed Issues

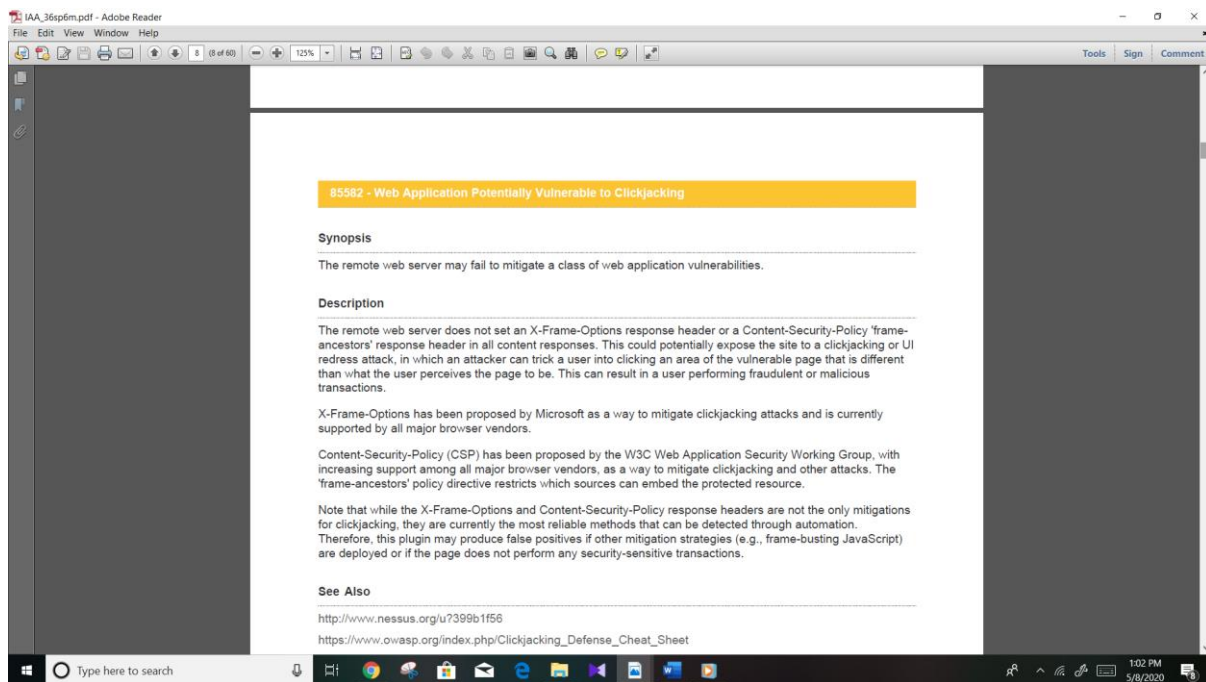


Figure 12 : Descriptions, Solutions in Issues

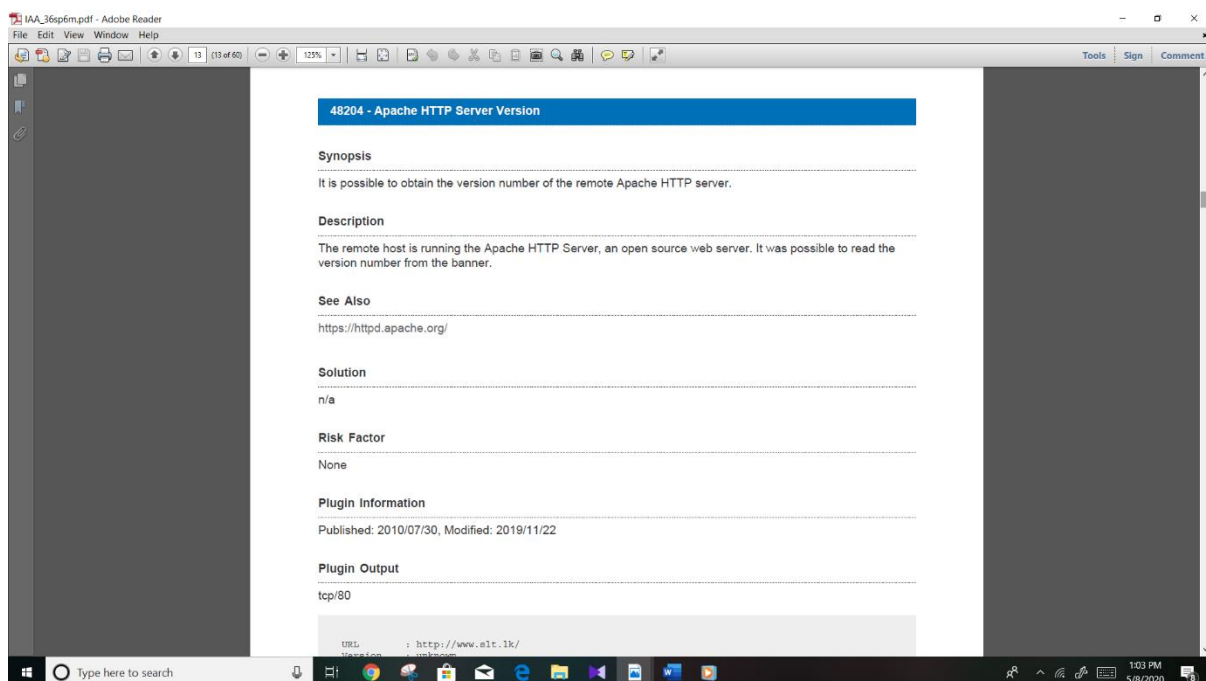


Figure 13 : Information details in Scan

## 04. QUALYS SSL TESTING

### 04.1. This is “Qualys SSL Lab” website interface.

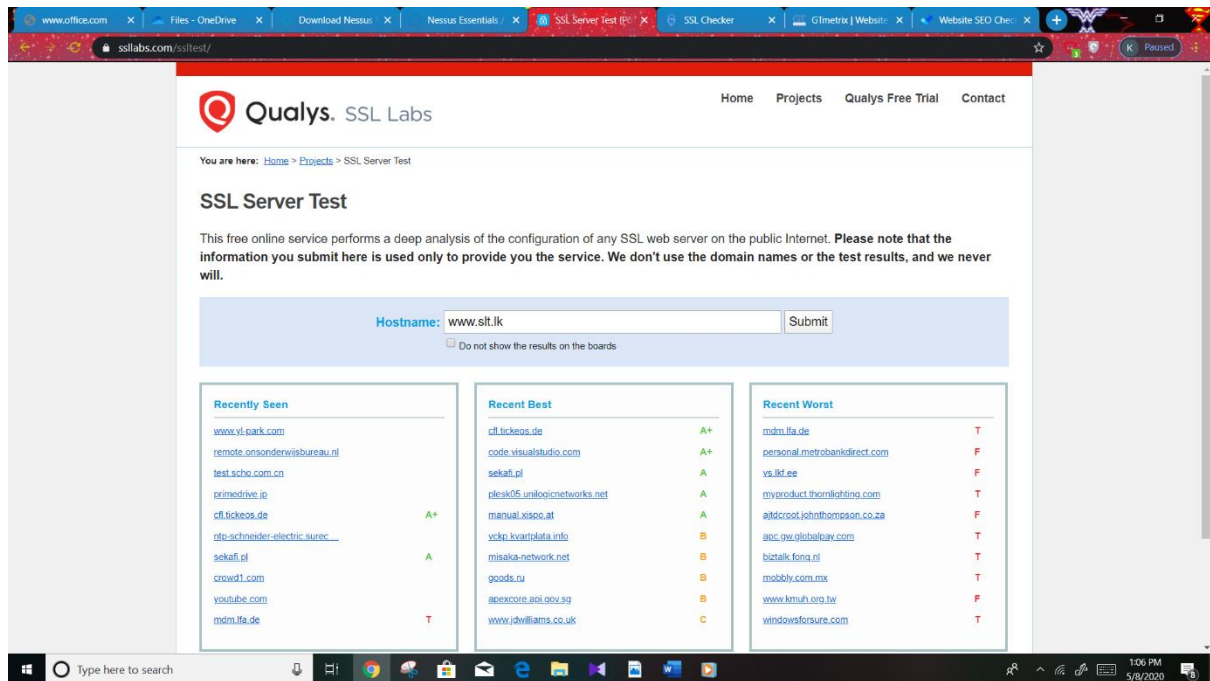


Figure 14 : Qualys SSL Lab Website

### 04.2. This is ongoing SSL testing scan profile in SLT.

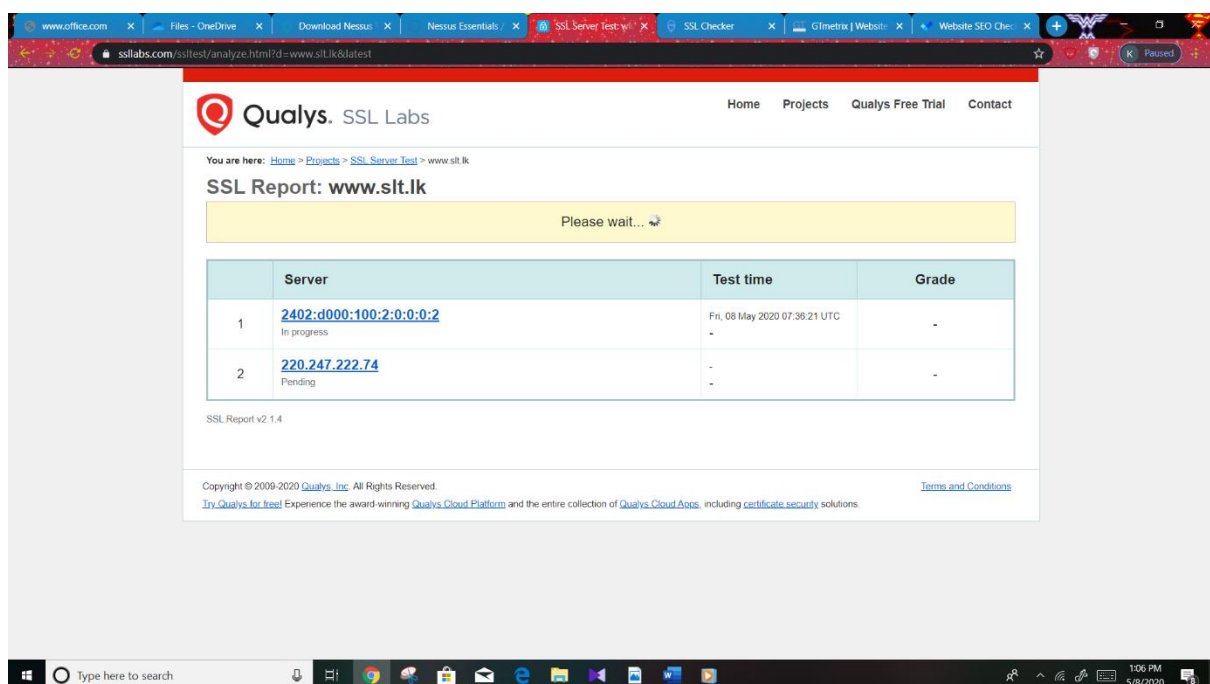


Figure 15 : Qualys SSL Lab Testing

04.3. Then you can see the final test result of this SLT website.

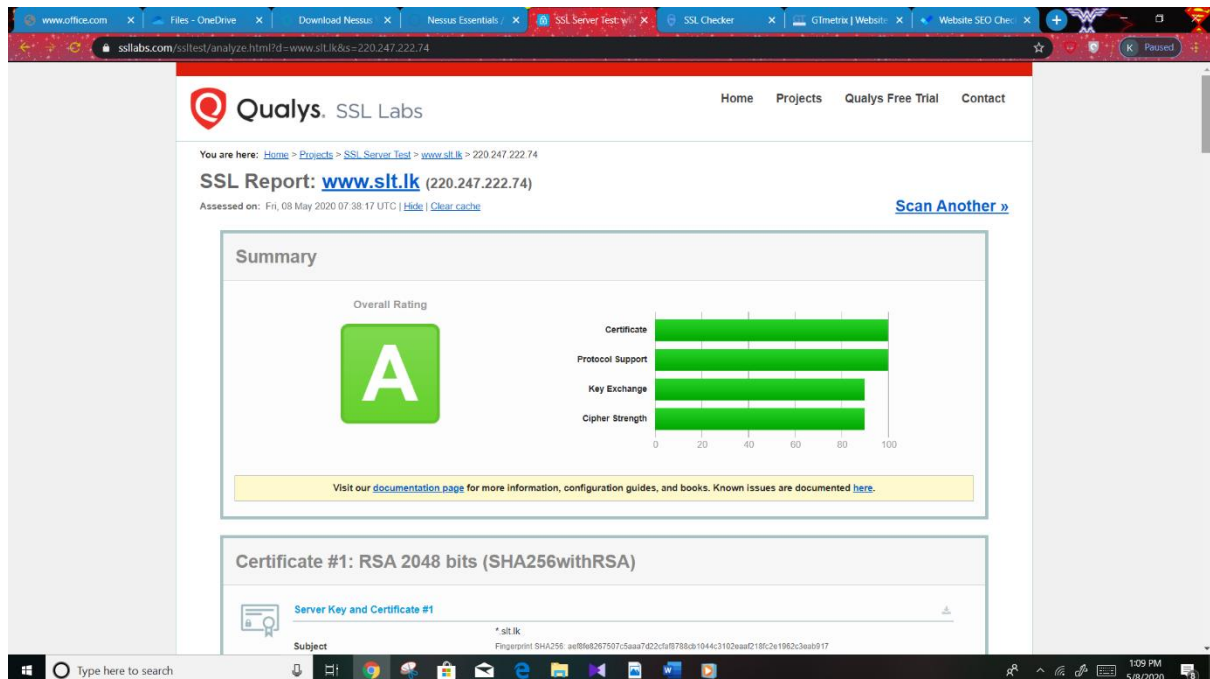


Figure 16 : Qualys SSL Lab Scan Result

## 05. SSL CHECKER TESTING

### 05.1. This is the “SSL Checker” website interface.

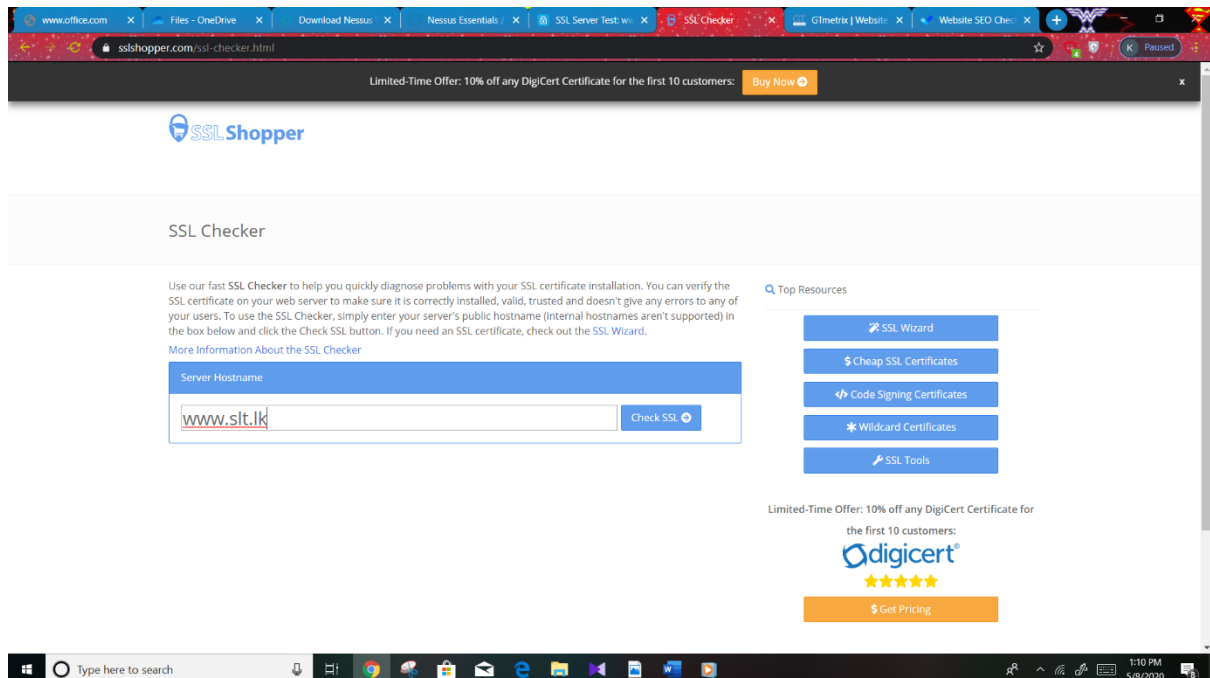


Figure 17 : SSL Checker Website

### 05.2. This is the final test result in this scan.

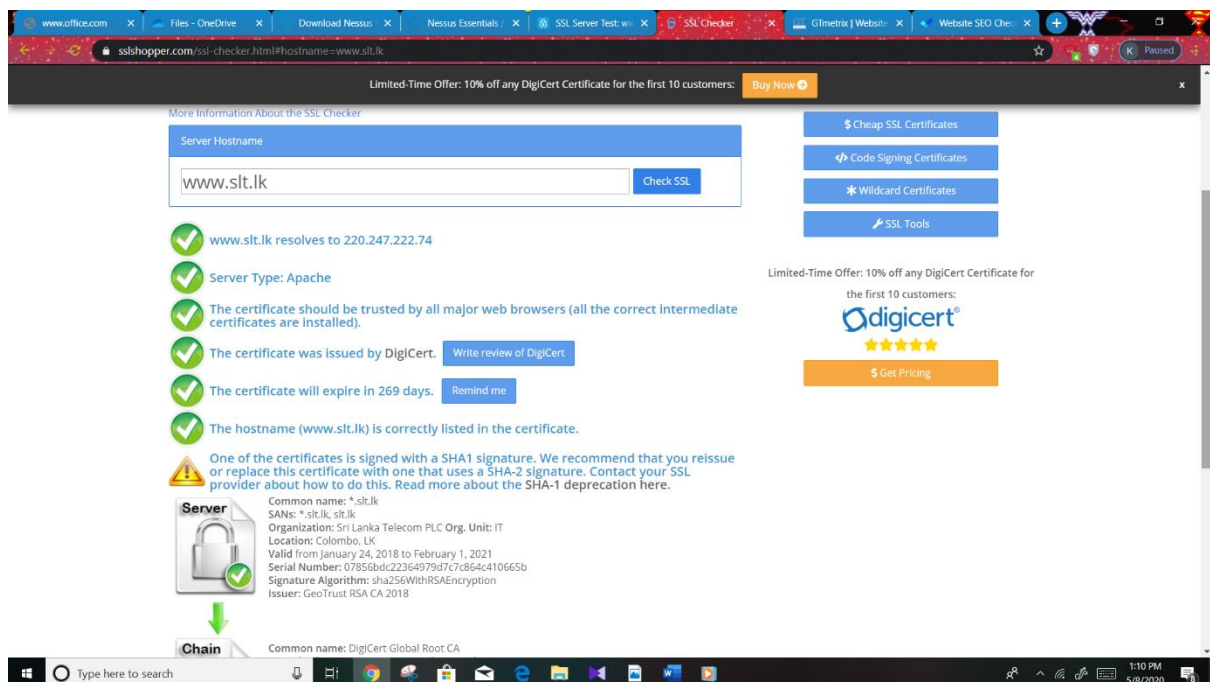


Figure 18 : SSL Checker scanning Results



## 06. GT-Metrix TESTING WEBSITE PERFORMANCE

06.1. This is the “GT-Metrix” website interface.

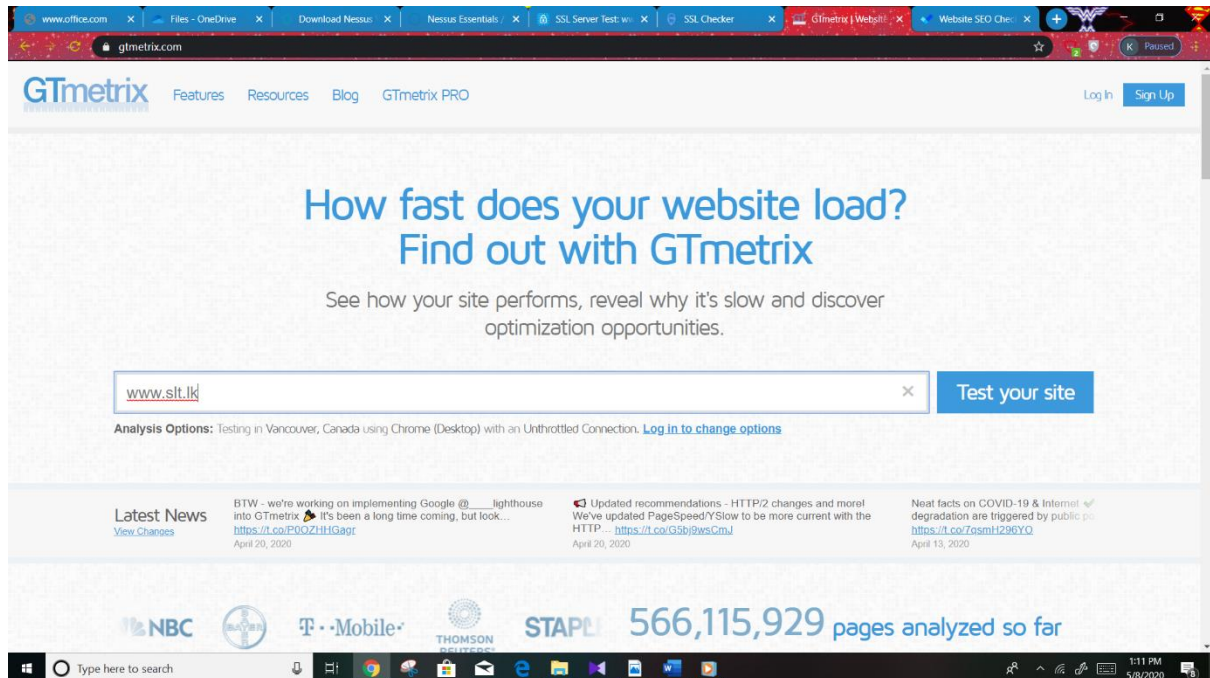


Figure 19 : GT-Metrix Website

06.2. Then this is analyzing the SLT website performance.

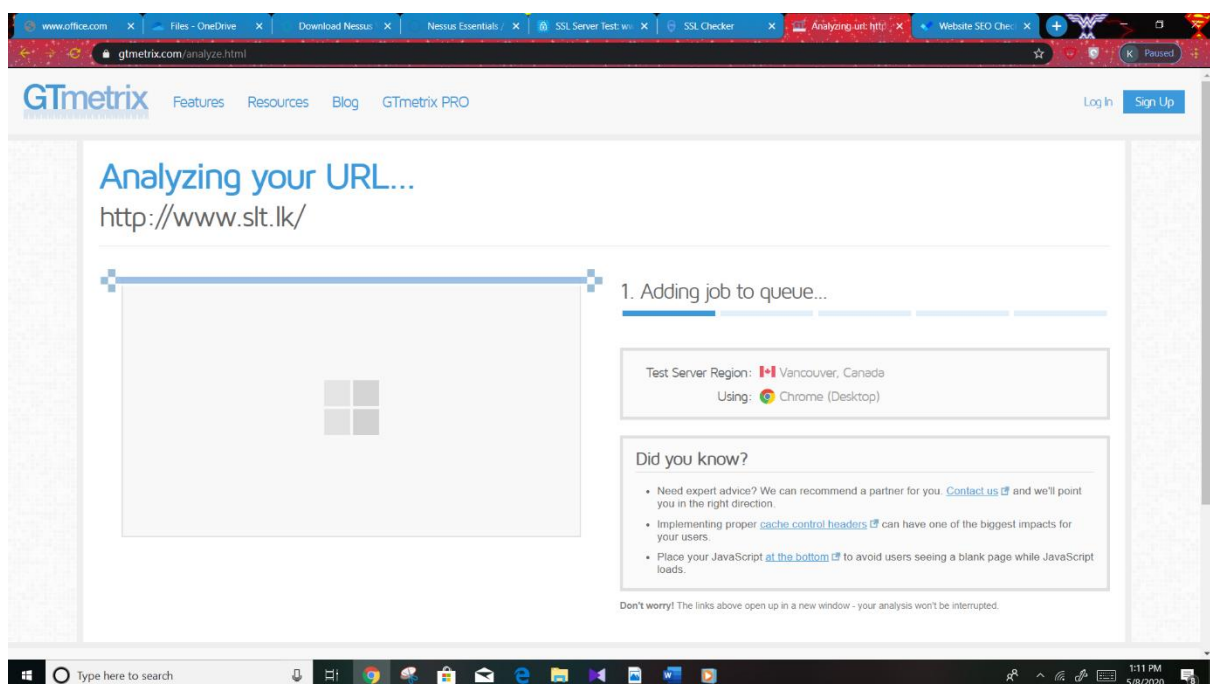


Figure 20 : SLT Site Analyzing

## 06.3. This is final performance report.

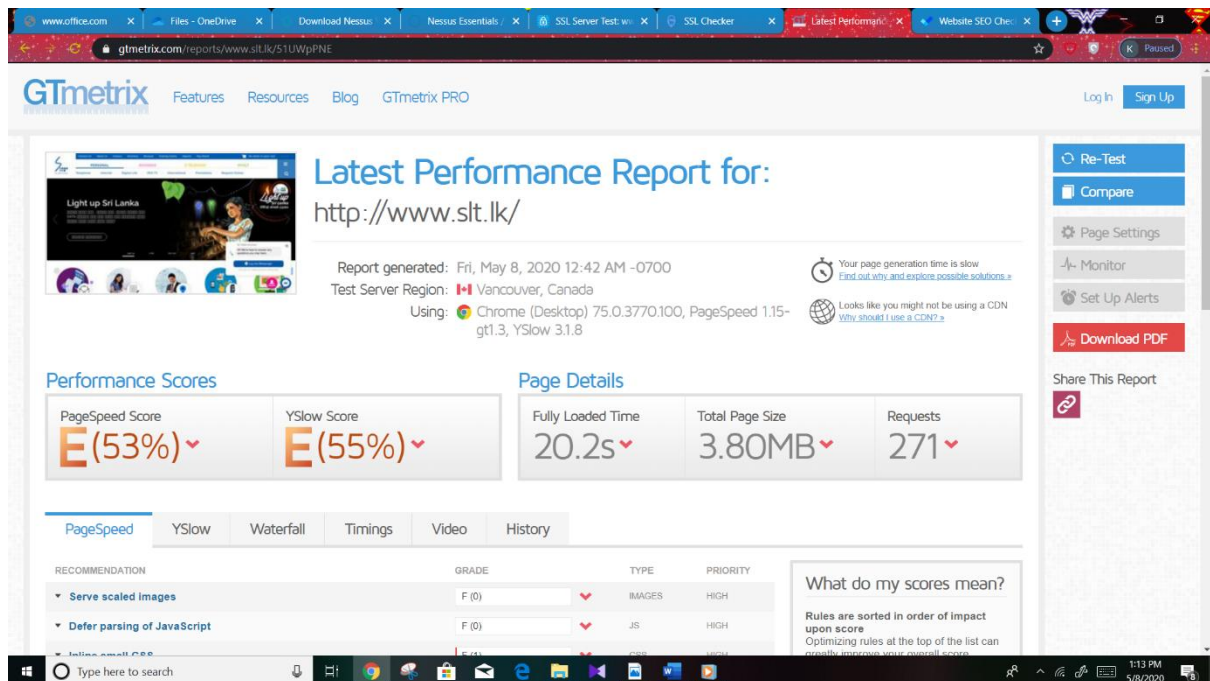


Figure 21 : After Scanning Final Report



## 07. SITECHECKER SEO TESTING

07.1. This is the “Sitechecker” website interface.

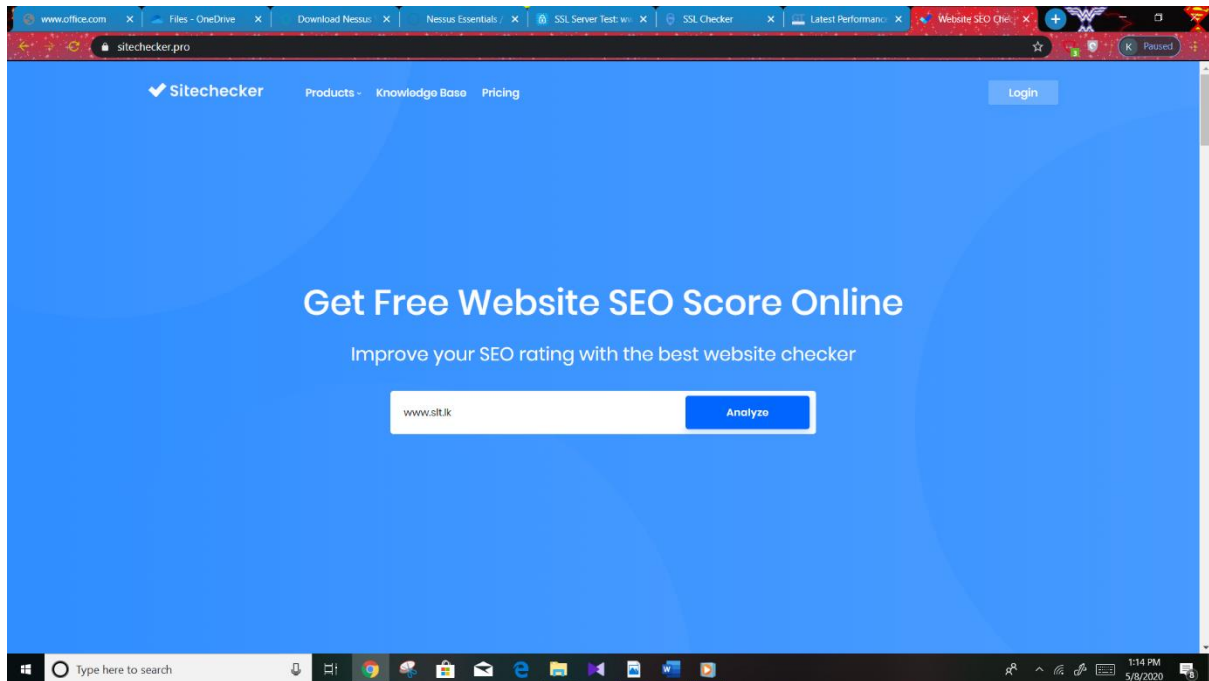


Figure 22 : Sitechecker website

07.2. This is ongoing SEO (Search Engine Optimization) scan profile in SLT website.

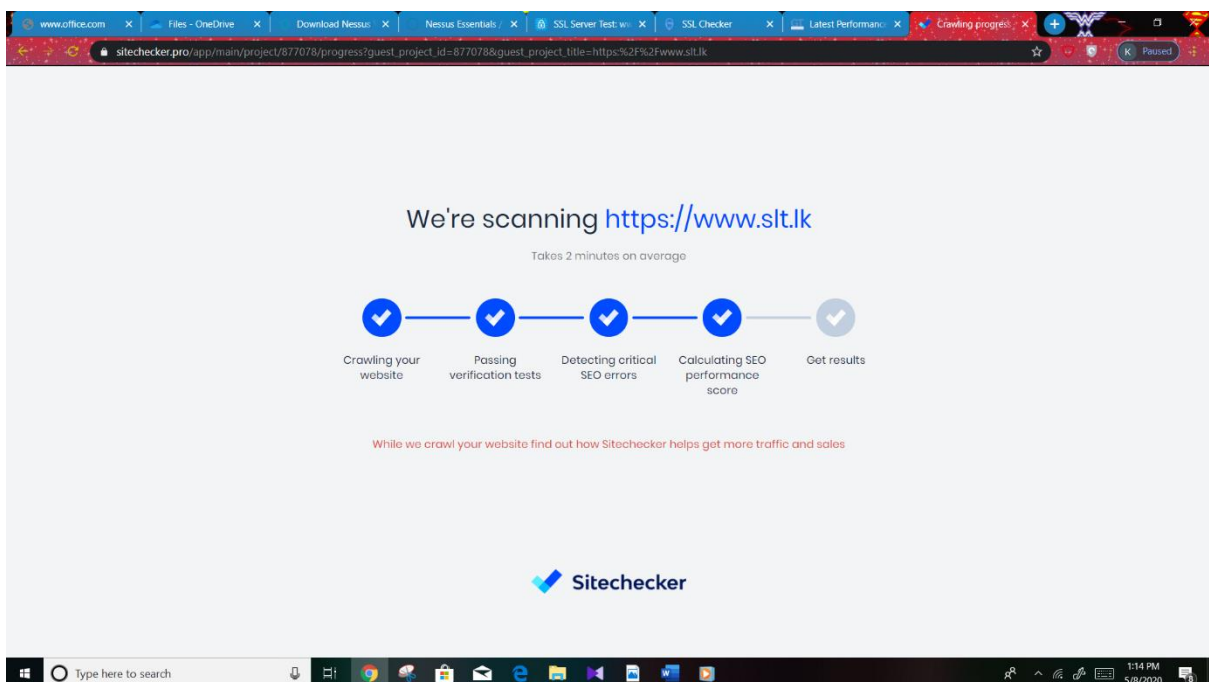


Figure 23 : SEO Testing

07.3. This is the final test result of the SLT website.

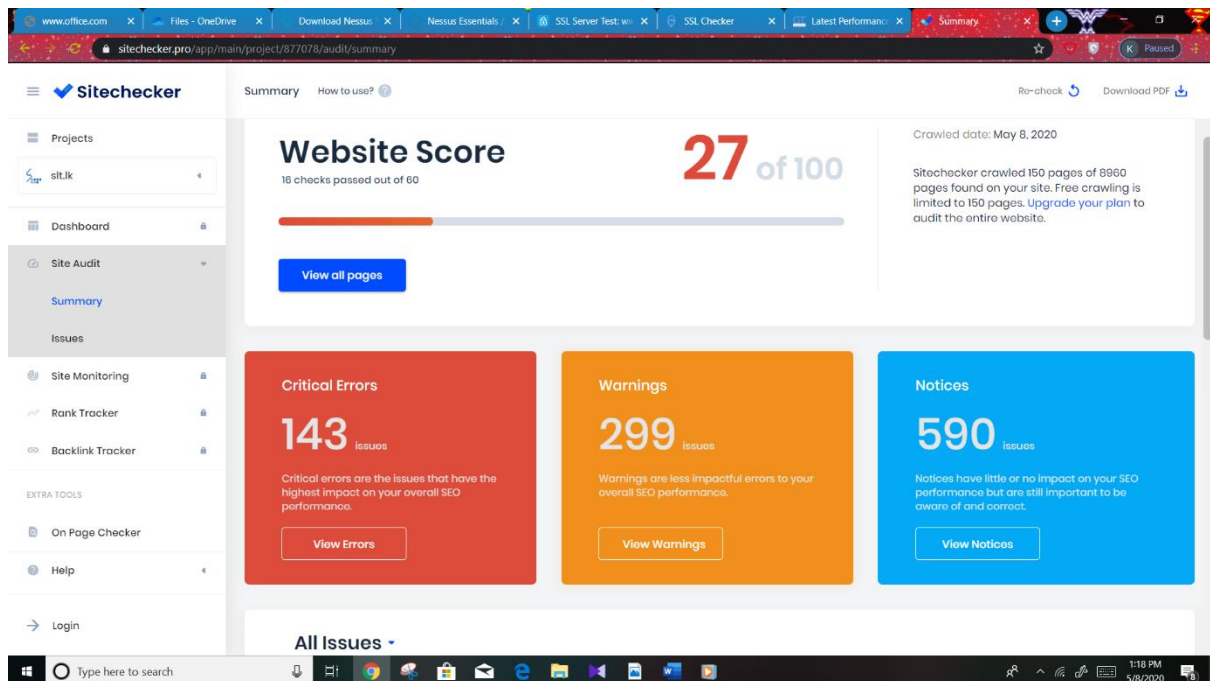


Figure 24 : Final Scan Report in SEO Testing

## **PROBLEM IDENTIFICATION**

We found that the Nessus scan identified 1 type of Critical Risk, 1 type of High Risk and 3 types of Medium Risks, and the rest were for reference purposes only. We still need to review the results of this information to make it clear that there is no privacy disclosure or third-party information on our website. SSL is the primary focus here for ensuring the status of a website between a website visitor and a web server. Deprecated use of the TLS version and the availability of HTTP strict transmission security. In addition, we recognize that due to the many problems reported by the GT-Metrix including yslow factors and page speed, the performance of the website is not satisfactory. As we review the content and status of SEO content, we also need to make improvements so that we can evaluate and make it the best website to compete with competitors in similar industries.

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