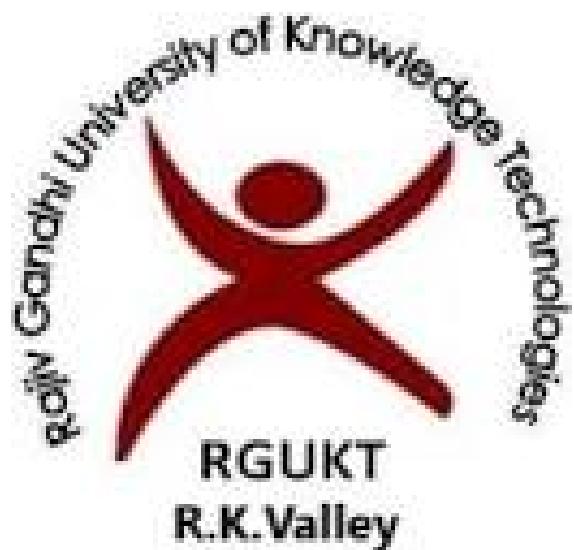


**Project Report  
On  
SSL CHECKER**

**Submitted by  
M.R.Meghana R171078**

**Under the guidance of  
Sir K Vinod Kumar  
Assistant Professor**

**Department of Computer Science and Engineering**



**Rajiv Gandhi University of Knowledge and Technologies(RGUKT),  
R.K.Valley, Kadapa, Andra Pradesh.**



## Rajiv Gandhi University of Knowledge Technologies

### RK Valley, Kadapa (Dist), Andhra Pradesh, 51633

### CERTIFICATE

This is to certify that the project work titled "**SSL CHECKER**" submitted by **M.R.Meghana (R171078)** in partial fulfillment of the requirements of the award of Bachelor of Technology in Computer Science and Engineering is a bonafide work carried out by them under the supervision and guidance.

**K Vinod Kumar**

Assistant Professor  
Computer Science and Engineering  
RGUKT R.K.Valley

**N Satyanandaram**

Head of the Department  
Computer Science and Engineering  
RGUKT R.K.Valley

Submitted for the practical examination held on .....

**Internal Examiner**

**External Examiner**

## **DECLARATION**

I, **M. R. Meghana ( R171078 )**, hereby declare that the project report entitled "**SSL CHECKER**" done by me under the guidance of Sir K Vinod Kumar is submitted in partial fulfillment for the degree of the Bachelor of Technology in Computer Science and Engineering during the academic session 2022 – 2023 at RGUKT R.K.Valley. We also declare that this project is a result of our own effort and has not been copied or imitated from any source. Citations from any websites are mentioned in the references. The results embodies in this project report have not been submitted to any other university or institute for the award of any degree or diploma

## **ACKNOWLEDGEMENT**

We would like to express our sincere gratitude to Sir K Vinod Kumar, our project Supervisor for valuable and keen interest throughout the progress of our project. We are grateful to Sir N Satyanandaram, Head of the Department CSE for providing congenial atmosphere for progressing with our project. We extend our sincere gratitude to the department of Computer Science and Engineering. My sincere thanks to all who have supported me to gain knowledge about actual working involved in various technologies.

## **Abstract**

SSL Certificate is the proof to tell us that a website is secure. Getting an SSL certificate for your website is important for several reasons:

Security: SSL (Secure Socket Layer) encrypts data that is transmitted between a web server and a user's browser. This ensures that sensitive information such as login credentials, credit card details, and other personal information cannot be intercepted by hackers. Trust: Having an SSL certificate gives your website visitors peace of mind knowing that the information they share with your website is secure. It also helps establish trust with potential customers, which is essential for businesses that collect sensitive data. SEO: Google has officially announced that having an SSL certificate is a ranking signal for websites. This means that websites with SSL certificates are more likely to rank higher in search engine results pages (SERPs).

Compliance: Many regulatory bodies require websites that collect sensitive data to have an SSL certificate. For example, the Payment Card Industry Data Security Standard (PCI DSS) requires websites that accept credit card payments to have an SSL certificate.

Overall, getting an SSL certificate is a worthwhile investment that can improve the security and trustworthiness of your website, boost your search engine rankings, and ensure compliance with regulations.

An SSL checker is an online tool that allows you to check the status and configuration of your website's SSL certificate. There are several free SSL checker tools available online that can check your SSL certificate's expiration date, domain validation, certificate chain, encryption strength, and other details. I have aimed to design and develop a simple website on this basis.

Here are the steps to check your SSL certificate using an SSL checker tool.

Go to an SSL checker website such as SSL Shopper or Qualys SSL Labs. Enter your website's domain name in the search bar and click the "Check SSL" or "Submit" button. The SSL checker tool will scan your website's SSL certificate and display the results on the screen. Review the results to ensure that your SSL certificate is valid, properly configured, and secure.

If the SSL checker tool identifies any issues with your SSL certificate, you should take immediate action to resolve them. This may include renewing your SSL certificate, updating your SSL configuration, or contacting your web hosting provider or SSL certificate vendor for assistance.

## Contents

### **1. Introduction**

- 1.1 Description
- 1.2 Purpose
- 1.3 Scope

### **2. Literature Review**

- 2.1 Figma
- 2.2 Svelte
- 2.3 Node JS
- 2.4 Express

### **3. Software Requirement Specification**

### **4. Coding Or Implementation**

### **5. Testing**

### **6. Output**

### **7. Applications**

### **8. Conclusion**

### **9. References**

## **1.Introduction**

### **1.1 Description:**

In today's digital age, online security is a crucial concern for businesses and individuals alike. SSL (Secure Sockets Layer) is an important protocol that helps ensure secure communication between servers and clients over the internet. However, configuring SSL certificates correctly can be complex and mistakes can lead to vulnerabilities in the security of your website or application. To help ensure that SSL is set up correctly, SSL Checker tools are available to scan and identify potential issues.

### **1.2 Purpose**

The SSL Checker tool can verify that the SSL Certificate on your web server is properly installed and trusted. SSL Checker will display the Common Name, server type, issuer, validity, certificate chaining, along with additional certificate details. The purpose of an SSL Checker tool is to provide website owners, administrators, and developers with a quick and easy way to check the security of their SSL configuration. This tool can identify and alert users to potential vulnerabilities in their SSL setup that can leave them open to attacks such as man-in-the-middle attacks or data breaches.

### **1.3 Scope**

An SSL Checker tool is a web-based application that scans your website's SSL configuration to identify potential vulnerabilities and issues. The scope of the tool includes checking for the presence of SSL certificates, verifying the certificate chain, and ensuring that the SSL configuration is properly implemented. It also checks if SSL certificates are up to date and not expired, which can cause problems for the security of the website. The tool can also provide recommendations on how to fix any issues it finds.

## **2. Literature Review**

### **2.1 Figma**

Figma is a popular web-based design and collaboration tool that has gained popularity among designers, developers, and project managers. In recent years, there has been a growing interest in Figma, with several studies examining its features, usability, and effectiveness in improving design workflows. Overall, the literature suggests that Figma is a highly effective tool for design collaboration, workflow improvement, and design quality. Its accessibility and ease of use have made it a popular choice among design professionals, and its integration with other tools has made it a valuable addition to many design workflows.

### **2.2 Svelte**

Svelte is a relatively new web development framework that has gained popularity in recent years. It is a compile-time framework that converts code into highly optimized JavaScript at build time, resulting in faster and more efficient applications. This literature review provides an overview of the current research and trends surrounding Svelte.

One of the main advantages of Svelte is its small bundle size, which reduces load times and makes it ideal for building fast and responsive web applications. In conclusion, Svelte is a powerful and efficient web development framework that has gained popularity due to its small bundle size, easy-to-learn syntax, and excellent performance. Its growing popularity and adoption by the web development community suggest that Svelte is a framework worth considering for building fast and responsive web applications.

### **2.3 Node JS**

Node.js is an open-source, cross-platform, server-side runtime environment that allows developers to build scalable, high-performance applications using JavaScript. Node.js has become a popular choice for building web applications due to its event-driven, non-blocking I/O model, vast ecosystem of packages and modules, and scalability. While it has some limitations, the advantages of using Node.js have been well-documented in the literature. As such, Node.js is likely to continue to be a key player in the web development industry for the foreseeable future.

### **2.4 Express**

Express is a popular web application framework for Node.js, designed to build robust and scalable web applications. It provides a simple and minimalist approach to building web applications by providing a set of powerful features and tools that enable developers to create APIs, web applications, and other types of web services quickly and efficiently. One of the key benefits of Express is its simplicity and minimalist approach to web application development. The framework provides a basic set of features and functions that can be easily extended and customized, allowing developers to focus on building their applications rather than worrying about the underlying infrastructure. This simplicity also means that Express is easy to learn and use, making it an accessible option for developers of all skill levels.

### **3. Software Requirement Specification**

#### **Functional Requirements:**

**User Input:** The SSL Checker will allow users to input the domain name of the website they wish to check.

**Certificate Retrieval:** The SSL Checker will retrieve the SSL certificate associated with the inputted domain name.

**Certificate Verification:** The SSL Checker will verify the SSL certificate for the inputted domain name, including checking its expiration date, issuer, and other relevant information.

**Display Results:** The SSL Checker will display the results of the certificate verification to the user, including whether the certificate is valid or not.

#### **Non-Functional Requirements**

**Security:** The SSL Checker will be designed with security in mind, including ensuring that all user data is protected and not vulnerable to attack.

**Usability:** The SSL Checker will be designed to be easy to use and navigate, with a simple and intuitive user interface.

**Reliability:** The SSL Checker will be reliable, ensuring that it provides accurate information about SSL certificates.

#### **Constraints**

**Performance:** The SSL Checker must be designed to handle a large volume of user requests, ensuring that it can handle high traffic loads without slowing down or crashing.

**Compatibility:** The SSL Checker must be compatible with a variety of web browsers and operating systems, ensuring that it can be accessed by the widest possible audience.

#### **Assumptions and Dependencies**

**Inputted Domain Name:** The SSL Checker assumes that the user has inputted the correct domain name for the website they wish to check.

**SSL Certificate Verification:** The SSL Checker is dependent on third-party services for SSL certificate verification, and assumes that these services are functioning correctly.

## **4. Coding or Implementation**

Implementation is the stage of the project when the theoretical design is turned out into work system. Thus it can be considered to be the most critical stage in achieving a successful new system and in giving the user confidence that the new system will work and be effective. The implementation stage involves careful planning, investigation of the existing system and its constraints on implementation, designing of methods to achieve changeover and evaluation of changeover methods.

### **App.svelte**

```
<script>
import Header from "./components/Header.svelte";
import SearchBox from "./components/SearchBox.svelte"
</script>
<main id="main-page">
<Header/>
<SearchBox/>
</main>
Header.svelte
<script>
</script>
<main>
<div class="headerbox">
<h1 class="heading">SSL <span class="linear-grad-blue">Shoper</span></h1>
</div>
</main>
<style>
* {
  box-sizing: border-box;
  padding: 0;
  margin: 0;
  font-family: "Montserrat", sans-serif;
}
.headerbox {
  position: fixed;
  z-index: 10000;
  width: 100%;
  background: #ffffff;
  padding: 1rem 1rem;
  display: flex;
  justify-content: space-around;
  align-items: center;
  background: rgba(255, 255, 255, 0.65);
  box-shadow: 0 4px 30px rgba(0, 0, 0, 0.1);
  backdrop-filter: blur(6.5px);
  -webkit-backdrop-filter: blur(6.5px);
}
}
```

```
.heading {  
    font-family: "Montserrat";  
    font-style: normal;  
    font-weight: 600;  
    font-size: 1.8rem;  
    text-align: center;  
}  
.linear-grad-blue {  
background-image: linear-gradient(  
to right,  
#0066ff,  
#0066ff,  
#0035f5,  
#0003ff  
);  
-webkit-background-clip: text;  
background-clip: text;  
-moz-background-clip: text;  
-webkit-text-fill-color: transparent;  
-moz-text-fill-color: transparent;  
}  
/* Responsiveness */  
@media only screen and (min-width: 375px) and (max-width: 812px) {  
.headerbox {  
width: 100%;  
}  
}  
  
<script>  
// @ts-nocheck  
import Results from "./Results.svelte";  
let hostname = "";  
let companyName;  
let issuerDetails;  
let valid = "";  
let daysRemaining;  
let serialNumber;  
let validFrom;  
let validTo;  
let misspelled = true;  
let response;  
async function submitForm() {  
response = await fetch(`https://sslchecker.onrender.com?hostname=${hostname}` , {  
method: "POST",  
}).catch((error) => console.log(error));  
if (response) {  
const data = await response.json();
```

```
const resData = await data;
// console.log(resData);

// assign values to declared variables
companyName = data.companyName;
issuerDetails = data.issuerDetails;
daysRemaining = data.daysRemaining;
validFrom = new Date(data.validFrom).toDateString().slice(4);
validTo = new Date(data.validTo).toDateString().slice(4);
valid = data.valid;

if (companyName != "NULL") {
let para = companyName;
para = para.replace(".", "");
para = para.toLowerCase();
let str = hostname.toLowerCase();

// check if hostname is misspelled
misspelled = !(para.includes(str) || str.includes(para));
}
}
}
}

</script>
<ain id="main-page">
<div class="container">
<div class="search-box">
<h1 class="heading">SSL <span class="linear-grad-blue">Checker</span></h1>
<p class="info-para">
Use our fast SSL Checker to help you quickly diagnose problems with your
SSL certificate installation. You can verify the SSL certificate on your
web server to make sure it is correctly installed, valid, trusted and
doesn't give any errors to any of your users.
</p>
<p class="info-para">
To use the SSL Checker, simply enter your server's public hostname
(internal hostnames aren't supported) in the box below and click the
Check SSL button. If you need an SSL certificate, check out the SSL
Wizard.
</p>
<a href="#main-page" class="more-info-link"
>More information about the SSL Checker</a
>
<div class="input-box">
<div class="server-name-div">Server Hostname</div>
<form on:submit|preventDefault={submitForm}>
<div class="flex input-container">
?
```

```
<div class="input-div inline-block">
  <span class="input-span">http://</span><input
    type="text"
    class="input-url"
    name="input-url"
    bind:value={hostname}
    placeholder="www.example.com"
  />
</div>
<div class="inline-block">
  <button class="btn-primary" type="submit">Check SSL</button>
</div>
</div>
</form>
<div class="span-container">
  <span class="input-hint-span">Enter Hostname of website</span>
</div>
</div>
</div>

{#await response}
<div><h1>...waiting</h1></div>
{:then Number}
{#if response}
<Results
  {companyName}
  {issuerDetails}
  {daysRemaining}
  {serialNumber}
  {valid}
  {validFrom}
  {validTo}
  {misspelled}
/>
{/if}
{#if hostname == ""}
<p style="text-align:center">Please enter hostname</p>
{/if}
{:catch error}
<p style="color: red">
  {error.message}
</p>
{/catch}
{/await}
</main>
```

```
<style>
:root {
--primary-btn-color: #0066ff;
--primary-txt-color: #000000;

font-synthesis: none;
text-rendering: optimizeLegibility;
-webkit-font-smoothing: antialiased;
-moz-osx-font-smoothing: grayscale;
-webkit-text-size-adjust: 100%;
}

* {
box-sizing: border-box;
padding: 0;
margin: 0;
font-family: "Montserrat", sans-serif;
}

container {
display: flex;
justify-content: center;
align-items: center;
flex-direction: column;
width: 80%;
margin: 0 auto;
}

/* utility classes */
.btn-primary {
display: flex;
flex-direction: row;
justify-content: center;
align-items: center;
padding: 8px 14px;
color: #fff;
background: #0066ff;
transition: 0.2s all cubic-bezier(0.175, 0.885, 0.32, 1.275);
border: 1px solid #0066ff;
border-radius: 8px;
}
.btn-primary:hover {
border: 1px solid #0066ff;
color: #0066ff;
background: transparent;
cursor: pointer;
}
```

```
.inline-block {  
  display: inline-block;  
}  
  
.flex {  
  display: flex;  
}  
  
.heading {  
  font-family: "Montserrat";  
  font-style: normal;  
  font-weight: 600;  
  font-size: 3rem;  
  margin-bottom: 0.25rem;  
  text-align: center;  
}  
  
.linear-grad-blue {  
  background-image: linear-gradient(  
    to right,  
    #0066ff,  
    #0066ff,  
    #0035f5,  
    #0003ff  
  );  
  -webkit-background-clip: text;  
  background-clip: text;  
  -moz-background-clip: text;  
  -webkit-text-fill-color: transparent;  
  -moz-text-fill-color: transparent;  
}  
  
/* Search box */  
.search-box {  
  padding: 1rem 1rem;  
  background: #ffffff;  
  border: 1px solid #0066ff;  
  width: 75%;  
  border-radius: 8px;  
  background: rgba(255, 255, 255, 0.63);  
  border-radius: 16px;  
  box-shadow: 0 4px 30px rgba(0, 0, 0, 0.1);  
  backdrop-filter: blur(6.6px);  
  -webkit-backdrop-filter: blur(6.6px);  
  margin: 9rem 0 2rem 0;  
}
```

```
.info-para,  
.more-info-link {  
font-size: 0.8rem;  
line-height: 1.4;  
font-weight: 500;  
color: #666666;  
}  
.more-info-link {  
cursor: pointer;  
color: #0066ff;  
text-decoration: none;  
margin-top: 0.25rem;  
}  
input box */  
.input-box {  
margin-top: 2rem;  
border: 1px solid #0066ff;  
border-radius: 8px;  
padding-bottom: 2rem;  
margin-bottom: 1.5rem;  
}  
  
.input-container {  
padding: 0 1rem;  
margin-bottom: 0.25rem;  
}  
  
.input-div {  
border: 1px solid #d0d5dd;  
border-radius: 0.5rem;  
flex: 2;  
margin-right: 0.7rem;  
display: flex;  
}  
  
.input-span {  
padding: 8px 14px;  
border-right: 1px solid #d0d5dd;  
color: #827590;  
font-size: 14px;}  
.input-url {  
border: none;  
outline: none;  
font-size: 14px;  
padding: 8px 14px;
```

```
* .input-url {  
border: none;  
outline: none;  
font-size: 14px;  
padding: 8px 14px;  
flex: 1;  
background: transparent;  
}  
width: 100%;  
padding: 10px 14px;  
background: #0066ff;  
font-weight: 500;  
border-top-left-radius: 6px;  
border-top-right-radius: 6px;  
color: #ffffff;  
border: 10px;  
margin-bottom: 1rem;  
}
```

```
.input-hint-span {  
color: #827590;  
font-size: 10px;  
margin-left: 1.3rem;  
}
```

```
@media only screen and (max-width: 812px) {  
.container {  
width: 100%;  
padding: 60px 1rem 1rem;  
padding-top: 60px;  
padding-bottom: 1rem;  
}}
```

```
.search-box {  
width: 100%;  
margin: 4rem 0 2rem 0;  
}  
}
```

```
@media only screen and (max-width: 560px) {  
.input-container {  
padding: 0 1rem;  
flex-direction: column;  
margin-bottom: 0.25rem;  
}}
```

```
input:-webkit-autofill,  
input:-webkit-autofill:focus {  
    transition: background-color 600000s 0s, color 600000s 0s;  
}  
  
.server-name-div {  
    btn-primary {  
        margin: 1rem auto;  
    }  
    .span-container {  
        display: flex;  
        justify-content: center;  
    }  
    .input-hint-span {  
        margin: 0;  
    }  
}  
  
@media only screen and (max-width: 361px) {  
    .container {  
        padding: 40px 0 0 0;  
    }  
    .search-box {  
        box-sizing: border-box;  
        width: 95%;  
        border: none;  
        padding: 1rem;  
    }  
    .  
    .info-para {  
        padding: 1rem;  
    }  
    .more-info-link {  
        padding: 0;  
    }  
    .input-url {  
        width: 50%;  
    }  
}  
}  
</style>  
<main>  
{#if valid != "NULL"}  
<div class="report">  
<div class="rpt-summary">  
<div class="rpt-sum-header">  
<div class="rpt-sum-text">Report Summary</div>  
</div>
```

```
<div class="rpt-info">
<p>
  Here are the results. The results are generated using ssl-verifier
  module from <a
    class="ssl-veri-link"
    href="https://www.npmjs.com/package/ssl-verifier">ssl-verifier</a>
  >
</p>
</div>
<div class="rpt-sum-contents">
<div class="rpt-sum-cont" id="rsc-1">
<div class="rsc-q">
  <p class="rsc-q-txt">Website Address</p>
</div>
<div class="rsc-a">
  <p>{companyName}</p>
</div>
</div>
<div class="rpt-sum-cont" id="rsc-2">
<div class="rsc-q">
  <p class="rsc-q-txt">Certificate issued by</p>
</div>
<div class="rsc-a">
  <p>{issuerDetails.issuer}</p>
</div>
</div>
<div class="rpt-sum-cont" id="rsc-3">
<div class="rsc-q">
  <p class="rsc-q-txt">Certificate expires in</p>
</div>
<div class="rsc-a">
  {#if valid}
  <p>{daysRemaining} Days</p>
  {:else}
  <p>Not Applicable</p>
  {/if}
</div>
</div>
<div class="rpt-sum-cont" id="rsc-4">
<div class="rsc-q">
  <p class="rsc-q-txt">
    Host name is correctly listed in the certificate
  </p>
</div>
<div class="rsc-a">
```

```

{#if valid}
<button class="rsc-button" id="rscb1">Yes</button>
{:else if misspelled == true}
<span class="error-message">May be misspelled hostname</span>
{:else}
<span class="error-message">SSL Certificate is not installed</span>
<!-- <button class="rsc-button" id="rscb2">No</button> -->
{/if}
</div>
</div>
</div>
</div>
<div class="result-items">
<div class="rslt-itm">

<div class="ri">
<p>Common name: {companyName}</p>
<p>Location: {issuerDetails.location}</p>
{#if valid}
<p>Valid: from {validFrom} to {validTo}</p>
{:else}
<p>Valid: Not Applicable</p>
{/if}
<p>Serial Number: {serialNumber}</p>
<p>Issuer: {issuerDetails.issuer}</p>
</div>
</div>
</div>
</div>
{:else}
<p class="error-message">

<span>Invalid or empty hostname</span>
</p>
{/if}

```

```
main {
padding: 0px;
display: flex;
flex-direction: column;
align-items: center;
background: #ffffff url("251846398462.png") repeat right top;
}
.ssl-veri-link {
text-decoration: none;
color: #0066ff;
font-weight: 500;
}
.report {
font-family: "montserrat", sans-serif;
width: 80%;
margin: 1rem 0;
}
</main>
<style>
@import url("https://fonts.googleapis.com/css2?
family=Montserrat:wght@500&display=swap");
.rpt-sum-header {
background-color: #0066ff;
color: #ffffff;
display: flex;
align-items: center;
border-top-right-radius: 10px;
border-top-left-radius: 10px;
padding: 0.5rem 1.5rem;
font-size: 1rem;
font-weight: 500;
}
.rpt-info {
padding: 1rem;
border-bottom: 1px solid #d6cece;
font-size: 14px;
}
.rpt-sum-contents {
font-size: 14px;
.rslt-itm {
display: flex;
flex-direction: row;
align-items: center;
justify-content: space-around;
width: 80%;
margin-top: 2rem;
}
```

```
.rpt-sum-cont {  
padding: 0.5rem;  
border-radius: 8px;  
display: flex;  
flex-direction: row;  
align-items: center;  
}  
.rsc-q-txt {  
font-size: 14px;  
margin-left: 0.3rem;  
}  
.rsc-q {  
width: 50%;  
}  
.rsc-a {  
width: 50%;  
}  
#rsc-1,  
#rsc-3 {  
background-color: #e6e6e6;  
}  
.rsc-button {  
padding: 8px 16px;  
margin: 4px;  
#rscb1 {  
color: #ffffff;  
background-color: #12b76a;  
}  
.result-items {  
display: flex;  
flex-direction: column;  
align-items: center;  
}  
.ri-im {  
transform: scale(0.4);  
margin: 1.25rem;  
flex: 1;  
}  
.ri {  
font-size: 15px;  
flex: 1;  
}  
.ri p {  
margin: 1rem 0;  
}
```

```
error-message {
  display: flex;
  align-items: center;
  font-weight: 600;
  color: #f04438;
  margin-bottom: 1.5rem;
}
.error-img {
  widows: 1rem;
  height: 1rem;
  margin: 0 5px;
}
@media only screen and (max-width: 812px) {
  .report {
    width: 100%;
    padding: 1rem;
  }
  .rslt-itm {
    width: 100%;
  }
  .rpt-summary {
    margin: auto;
    width: 100%;
  }
  .result-items {
    margin: auto;
    width: 60%;
  }
  .ri p{
    font-size: 1rem;
  }
}
@media only screen and (max-width: 560px) {
  .ri {
    flex: 2;
  }
  .rslt-itm {
    margin: 1rem 0;
    flex-direction: column;
  }
}

</style>
```

## **5. Testing**

Software testing is an investigation conducted to provide stakeholders with information about the quality of product or service under test.

Software testing is a process used to identify the correctness, completeness and quality of developed computer software. Actually, testing can never establish the correctness of computer software, this can only be done by formal verification. It can only find defects

### **Why system testing is required?**

1. It is a first level software testing where the software or application is tested as whole.
2. It is done to verify and validate the technical business functional and non-functional requirements of the software. It also include the verification and validation of software application architecture.

### **Testing Methods:**

White Box Testing (WBT) : Entire WBT is done by developers. It is the testing of each and every line of code in the program. Developers do WBT, sends the s/w to testing team. The testing team does black box testing and checks the s/w against requirements and finds any defects and sends it to the developer. The developer fixes the defect and does WBT and sends it to the testing team.

Fixing defect means the defect is removed and the feature is working fine.

### **Grey box testing(GBT) :**

It is a mixture of both white box as well as black box testing and it is generally done by the test engineer who has knowledge of both coding and testing

### **Black box testing(BBT) :**

It is a type of testing done by the test engineers where he/she checks if the application(s/w) is working according to the requirement specification.

### **Integration Testing:**

Integration testing is any type of software testing that seeks to verify the interfaces between components against a software design. Software components may be integrated in an iterative way or all together. Integration testing works to expose defects in the interface and interaction between integrated components.

### **System Testing:**

System testing tests a completely integrated system to verify that requirements.

### **Agile Testing:**

Agile testing is a software testing practice that follows the principles of Agile software development. Agile testing involves all the members of a cross functional agile team, with special expertise contributed by testers, to ensure delivering business value desired by the customer at frequent intervals

## 6. Output

SSL Shoper

### SSL Checker

Use our fast SSL Checker to help you quickly diagnose problems with your SSL certificate installation. You can verify the SSL certificate on your web server to make sure it is correctly installed, valid, trusted and doesn't give any errors to any of your users. To use the SSL Checker, simply enter your server's public hostname (internal hostnames aren't supported) in the box below and click the Check SSL button. If you need an SSL certificate, check out the SSL Wizard.

[More information about the SSL Checker](#)

**Server Hostname**

Enter Hostname of website

Please enter hostname

SSL Shoper

### SSL Checker

Use our fast SSL Checker to help you quickly diagnose problems with your SSL certificate installation. You can verify the SSL certificate on your web server to make sure it is correctly installed, valid, trusted and doesn't give any errors to any of your users. To use the SSL Checker, simply enter your server's public hostname (internal hostnames aren't supported) in the box below and click the Check SSL button. If you need an SSL certificate, check out the SSL Wizard.

[More information about the SSL Checker](#)

**Server Hostname**

Enter Hostname of website

## SSL Shoper

### Report Summary

Here are the results. The results are generated using ssl-verifier module from [ssl-verifier](#)

Website Address

\*ktr.com

Certificate issued by

Sectigo RSA Domain Validation Secure Server CA

Certificate expires in

68 Days

Host name is correctly listed in the certificate

Yes



Common name: \*.ktr.com

Location: Salford, Greater Manchester, GB

Valid: from Jun 09 2022 to Jul 11 2023

Serial Number: 39399w09w0s030920

## SSL Shoper

Certificate issued by

Sectigo RSA Domain Validation Secure Server CA

Certificate expires in

68 Days

Host name is correctly listed in the certificate

Yes



Common name: \*.ktr.com

Location: Salford, Greater Manchester, GB

Valid: from Jun 09 2022 to Jul 11 2023

Serial Number: 39399w09w0s030920

Issuer: Sectigo RSA Domain Validation Secure Server CA

## **7. Applications**

Some of the common applications of SSL Checker include:

1. Checking SSL/TLS certificate expiration: SSL Checker can help you determine when the SSL/TLS certificate for a website is going to expire, allowing you to take action to renew it in time.
2. Identifying SSL/TLS certificate issues: SSL Checker can identify any issues with the SSL/TLS certificate for a website, such as invalid certificate chains, expired or self-signed certificates, and certificate revocation.
3. Verifying SSL/TLS certificate installation: SSL Checker can help you verify that the SSL/TLS certificate for a website is properly installed and configured, ensuring that visitors to the site are protected by a secure connection.
4. Improving website security: SSL Checker can help website owners and administrators identify and address any security vulnerabilities related to their SSL/TLS certificates, such as weak key lengths or outdated encryption protocols.
5. Ensuring compliance with industry standards: SSL Checker can help website owners and administrators ensure compliance with industry standards, such as the Payment Card Industry Data Security Standard (PCI DSS), which requires the use of SSL/TLS encryption for all online transactions.

## **8.Conclusion**

In conclusion, an SSL Checker is a useful tool that can help website owners and administrators ensure that their website is secure and compliant with industry standards. By verifying the SSL/TLS certificate, identifying issues, and ensuring proper installation and configuration, SSL Checker can help improve website security and protect users' sensitive information. With the growing importance of online security, SSL Checker is a valuable resource for anyone seeking to maintain a secure online presence.

## **9.References**

Foot Note:

1. SSL Shopper Website
2. Google
3. svelte.dev

End Note:

1. Friends