

Practical Lab Exercises

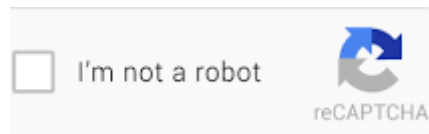
Lab – Security

Web Programming (F28WP)

Introduction

In this lab, you'll further develop your understanding of web security and verification.

1.1 reCAPTCHA



As a website owner, you're probably already familiar with some of the issues brought about by spammers and bots. When left unchecked, they can bring down the quality of your site by abusing your comments sections, and even attack your contact forms.

Why CAPTCHA?

- Offers an elegant way to differentiate between 'real' and 'fake' traffic.
- Human users should be able to solve most CAPTCHAs in a matter of seconds. Thus, they don't provide a barrier to entry for real visitors.
- A CAPTCHA can reduce the amount of spam your website receives

To add Captcha to your website:

1. Register Your Website on reCAPTCHA

(<https://developers.google.com/recaptcha>)

2. Add the reCAPTCHA Script to Your Website

e.g.

```
<script src='https://www.google.com/recaptcha/api.js'></script>
```

3. Place the CAPTCHA on Your Site

e.g.

```
<div class="g-recaptcha" data-sitekey="Your site key goes here"></div>
```

Review the Get started information on the Captcha website

1.1 Encrypting/Decrypting

In Javascript, you might need to encrypt and decrypt your information when communicating with your server. There are a number of freely available libraries available online that are able to encrypt your input on client side before you transfer the information to the server (i.e., in an encrypted form)

You can use following libs:

- [Stanford Javascript Crypto Library](#)

Update after 4 years (Wohoo!)

- [CryptoJS - Easy to use encryption](#)
- [ForgeJS - Pretty much covers it all](#)

Still not convinced? Neither am I :)

- [OpenPGP.JS - Put the OpenPGP format everywhere](#) - runs in JS so you can use it in your web apps, mobile apps & etc.

As a task try encrypting and decrypting a small piece of information in Javascript using one of the suggested libraries above.