ECM 3 Activity's

Learning Outcome 3

Activity 1

Aim: Create an Angular application which can create Captcha.

Learning outcome: Able to develop the real time scenarios based on Node JS applications.

Duration: 5 hours

List of Hardware/Software requirements:

- Operating System – Windows 10/11 or Linux
- Command Prompt/Power Shell
- Internet Connectivity, Browser (Chrome or Edge)
- Text Editor – Notepad / IDE – Visual Studio Code/Any IDE
- NodeJS, Angular CLI

Code/Program/Procedure (with comments):

Create the Angular application

1. Let's create the application with the Angular base structure using the @angular/cli with the route file and the SCSS style format.

   ng new angular-recaptcha –no-standalone

2. Right-click on the created project, open the terminal, and run this command.

   npm install ng-recaptcha

3. Create a re-captcha sitekey. https://www.google.com/recaptcha/about/

4. Add this code into the app.module.ts

```
import { NgModule } from '@angular/core';
import { BrowserModule, provideClientHydration } from '@angular/platform-browser';
import { FormsModule, ReactiveFormsModule } from '@angular/forms';
import { AppRoutingModule } from './app-routing.module';
import { AppComponent } from './app.component';
import { RecaptchaFormsModule, RecaptchaModule } from 'ng-recaptcha';

@NgModule({
  declarations: [
    AppComponent
  ],
  imports: [
    BrowserModule,
    AppRoutingModule,
```

```
    // ////////////////////////////////
    FormsModule,
    ReactiveFormsModule,
    RecaptchaModule,
    RecaptchaFormsModule
  ],
  providers: [
    provideClientHydration()
  ],
  bootstrap: [AppComponent]
})
export class AppModule { }
```

5. Add this code to the app.component.html

```
<h1>Recaptcha Google</h1>
<form [formGroup]="form" >
  <div class="mb-3 ">

    <re-captcha formControlName="captcha"
      siteKey="add your sitekey"
      ></re-captcha>
    <div class="alert alert-danger" *ngIf="f['captcha'].errors && f['captcha'].errors['required']">ReCaptcha
is required.</div>
  </div>
  <button class="btn btn-primary" type="submit">Submit</button>
</form>
```

6. Add this code into the app.component.ts

```
import { Component } from '@angular/core';
import { FormGroup,FormControl, Validators } from '@angular/forms';

@Component({
  selector: 'app-root',
  templateUrl: './app.component.html',
  styleUrl: './app.component.css'
})
export class AppComponent {
  form = new FormGroup({
    captcha: new FormControl('', [Validators.required]),
  });
  get f( ) { return this.form.controls; }
}
```

7. Now run the server.

   ng serve -o

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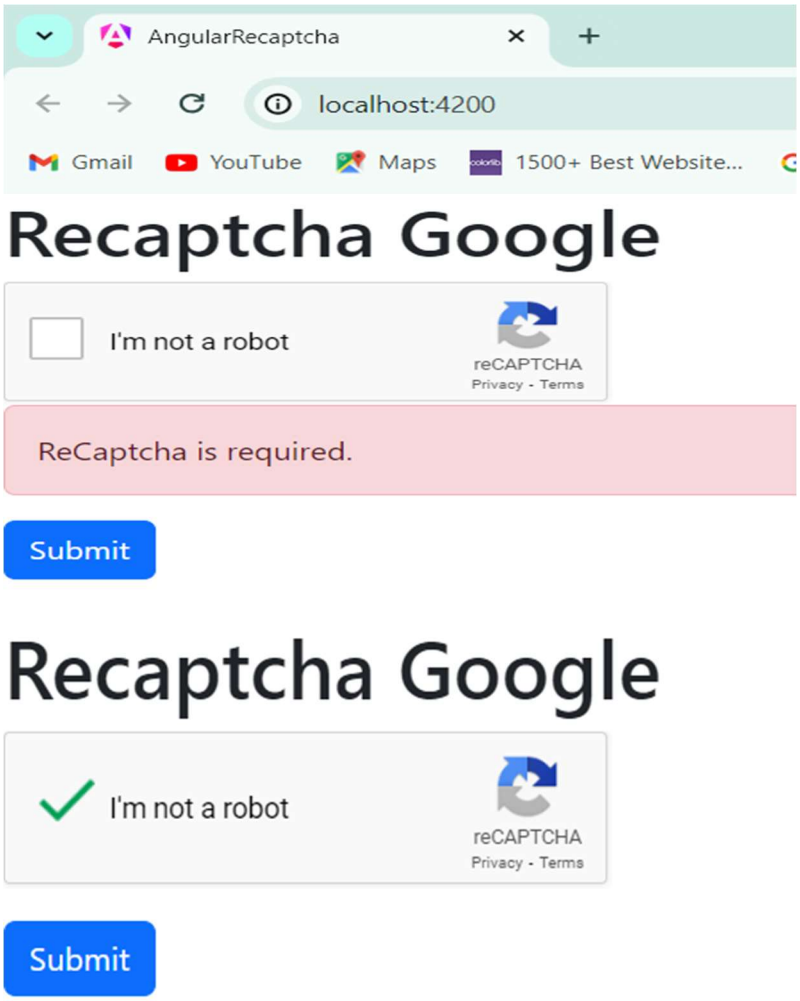
Output: