# Task 3

## Web API document and Postman testing result

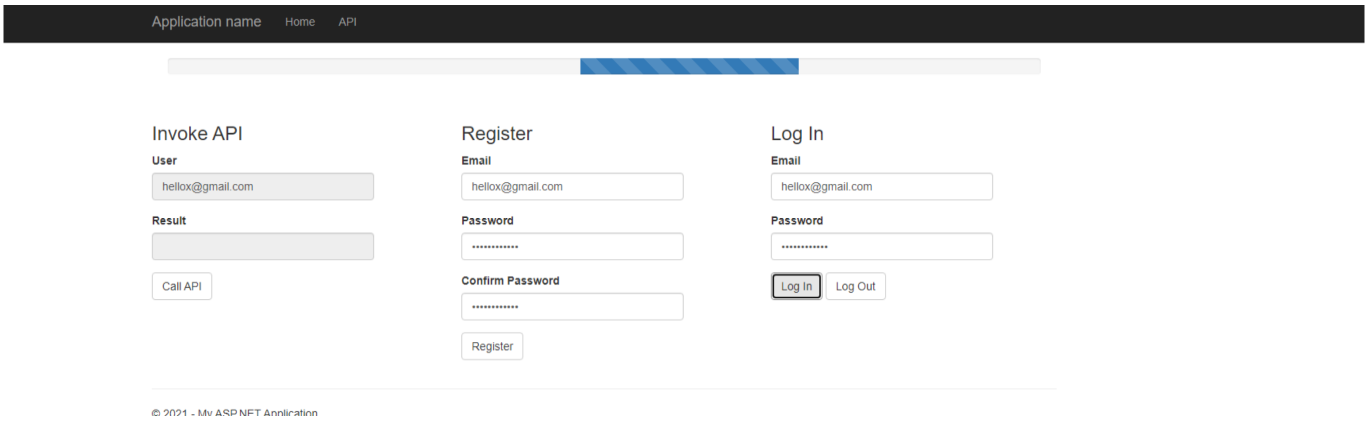
Refer to `task3-documents.pdf`.

## Sequence Diagram

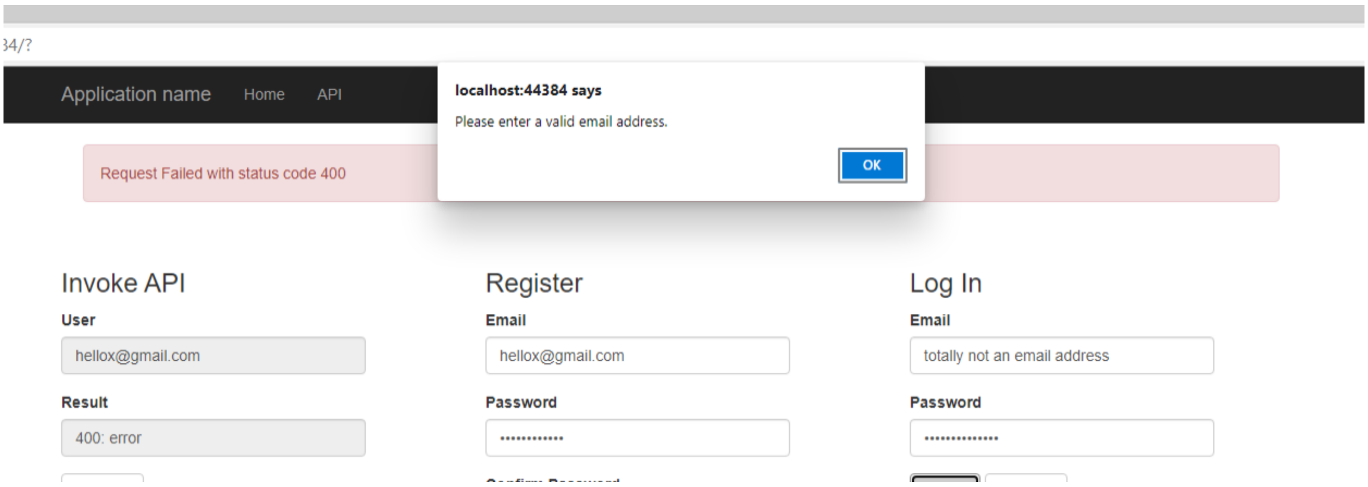
Refer to `sequence-diagram.png`

## Understanding, efficiency, robustness and security of the code

Loading bar is shown during login/register/invoke api API request:

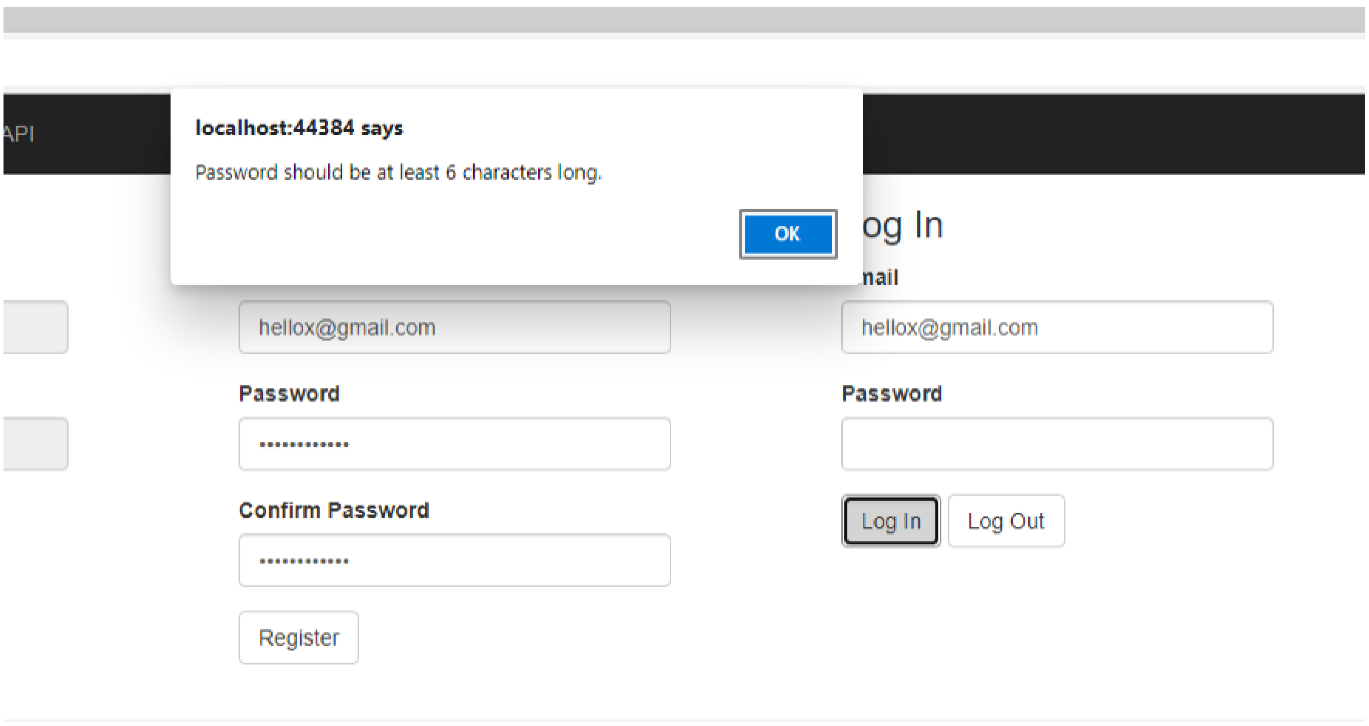


Client side email and password validation for login and register:


localhost:44384 says

Please enter a valid email address.

Request Failed with status code 400


localhost:44384 says

Password should be at least 6 characters long.

OK

PI

og In

nail

hellox@gmail.com

Password

••••••••••••

Confirm Password

••••••••••••

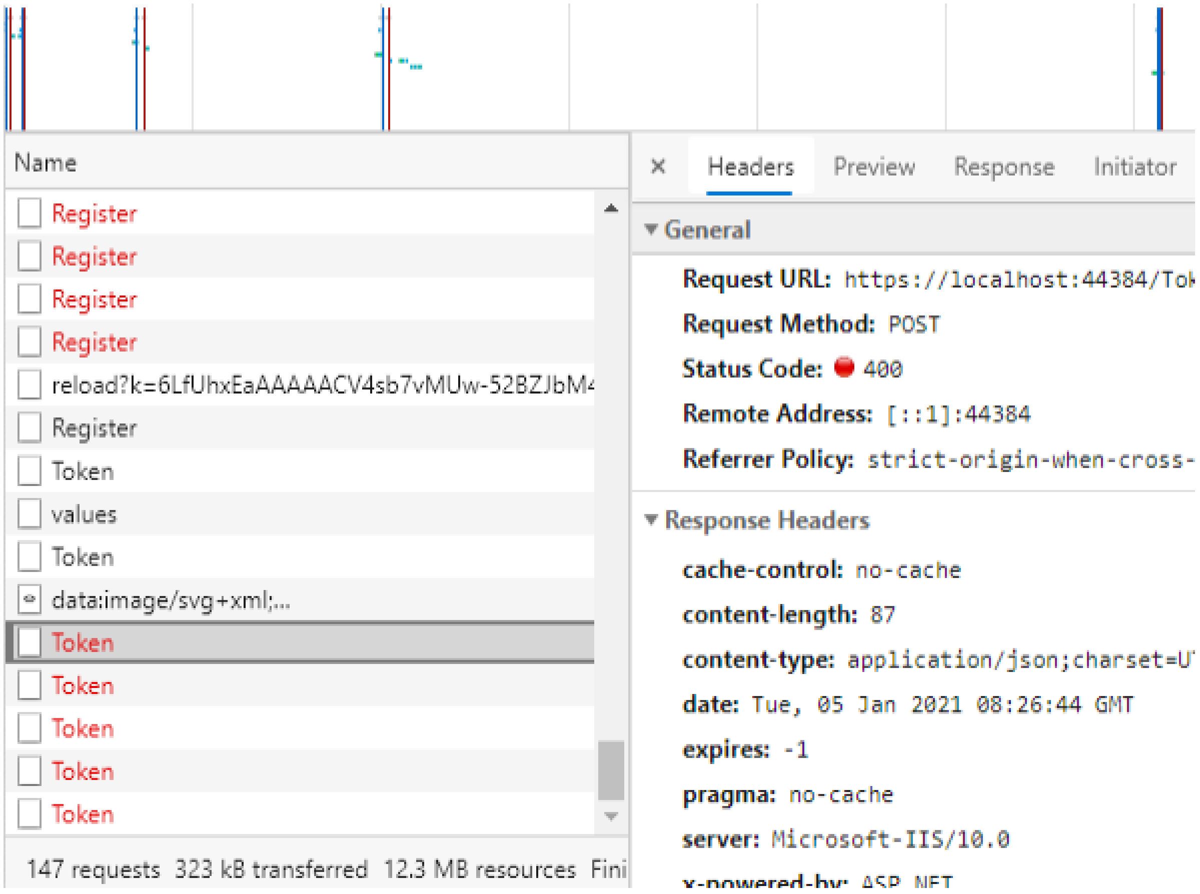
Register

hellox@gmail.com

Password

Log In Log Out

Retry logic for login, register, and invoke api:


Name

Register
Register
Register
Register
reload?k=6LfUhxEaAAAAACV4sb7vMUw-52BZJbM4
Register
Token
values
Token
data:image/svg+xml;...
Token
Token
Token
Token
Token

147 requests 323 kB transferred 12.3 MB resources Fini

× Headers Preview Response Initiator

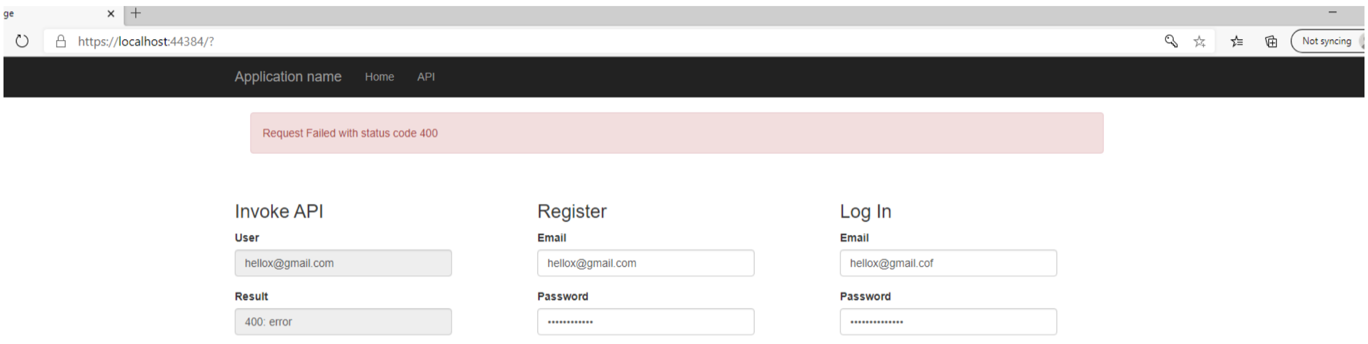
▼ General

Request URL: https://localhost:44384/Tok
Request Method: POST
Status Code: ● 400
Remote Address: [::1]:44384
Referrer Policy: strict-origin-when-cross-

▼ Response Headers

cache-control: no-cache
content-length: 87
content-type: application/json;charset=U
date: Tue, 05 Jan 2021 08:26:44 GMT
expires: -1
pragma: no-cache
server: Microsoft-IIS/10.0
x-powered-by: ASP.NET

API failure alert after multiple retries:



https://localhost:44384/?

Application name Home API

Request Failed with status code 400

Invoke API

User: hellox@gmail.com

Result: 400: error

Register

Email: hellox@gmail.com

Password: ••••••••••••

Log In

Email: hellox@gmail.cof

Password: ••••••••••••••

## Set up Guide

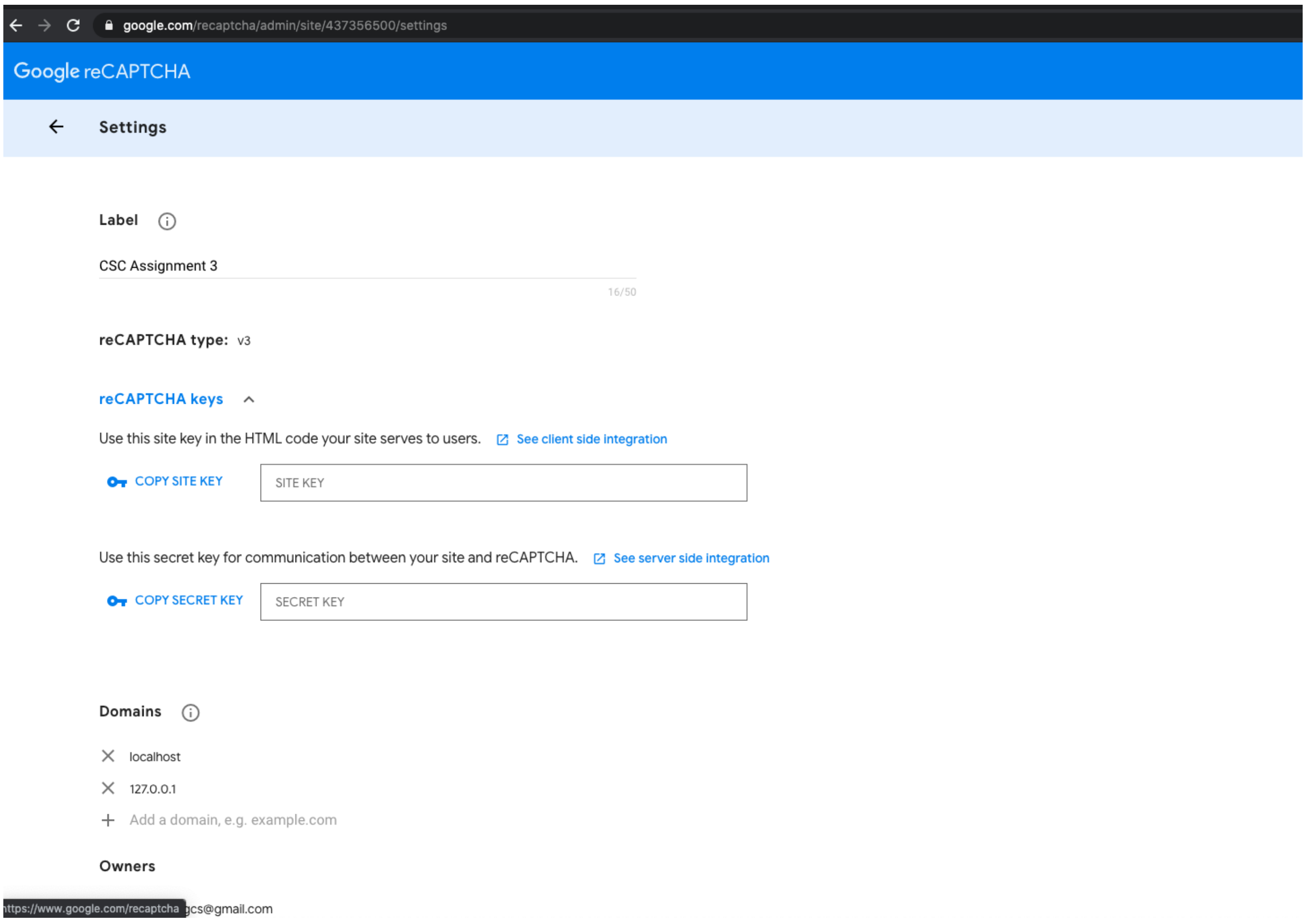
### 1. Recaptcha

Create a site on Recaptcha (https://www.google.com/recaptcha/).

Configure the recaptcha settings for the site to:

1. allow domains localhost and 127.0.0.1
2. Verify the origin of recaptcha solutions

https://www.google.com/recaptcha/admin/site/{id}/settings



google.com/recaptcha/admin/site/437356500/settings

Google reCAPTCHA

Settings

Label

CSC Assignment 3

16/50

reCAPTCHA type: v3

reCAPTCHA keys

Use this site key in the HTML code your site serves to users. See client side integration

COPY SITE KEY | SITE KEY

Use this secret key for communication between your site and reCAPTCHA. See server side integration

COPY SECRET KEY | SECRET KEY

Domains

localhost

127.0.0.1

Add a domain, e.g. example.com

Owners

gcs@gmail.com

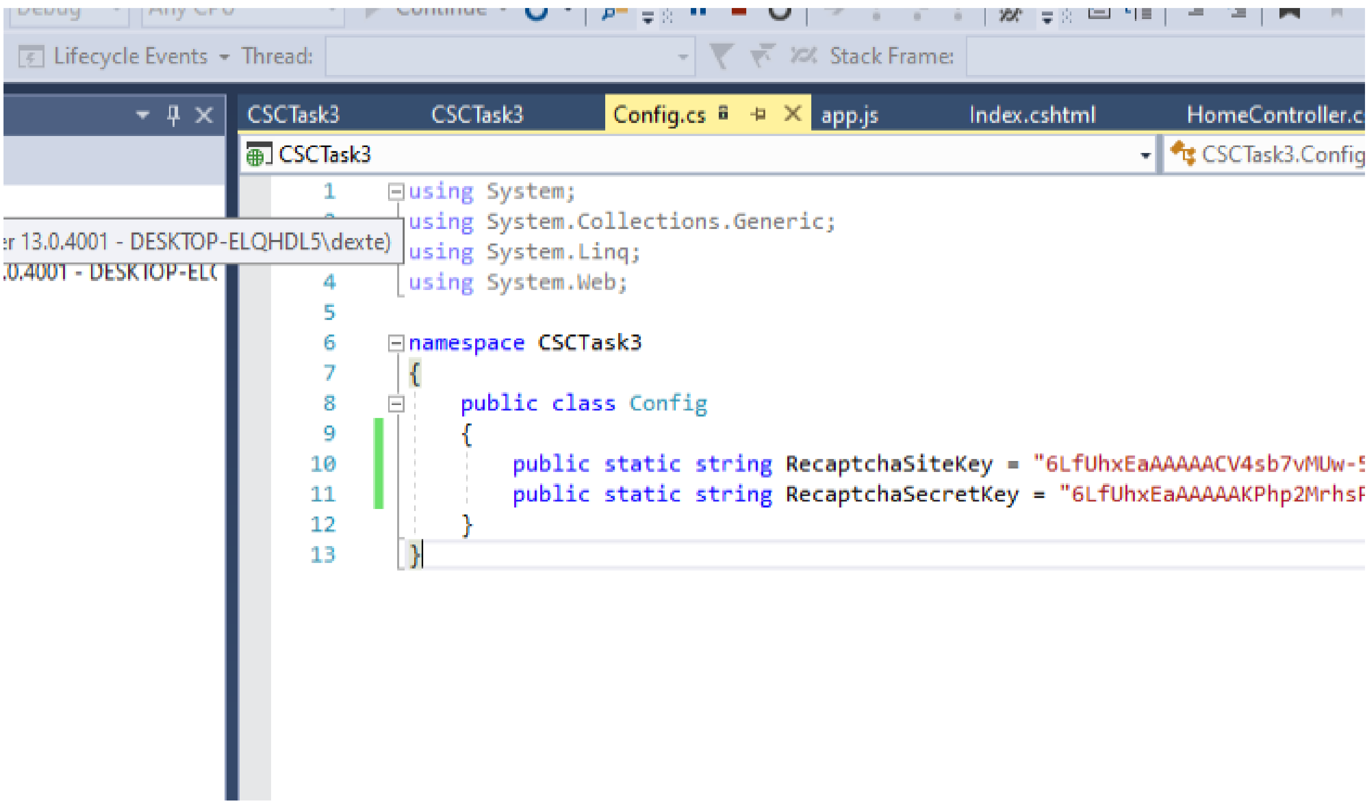
ttps://www.google.com/recaptcha

Copy the Site key and Secret Key

### 2. Configure credentials in project

Open the project.

Open Config.cs and fill in the site and secret key:

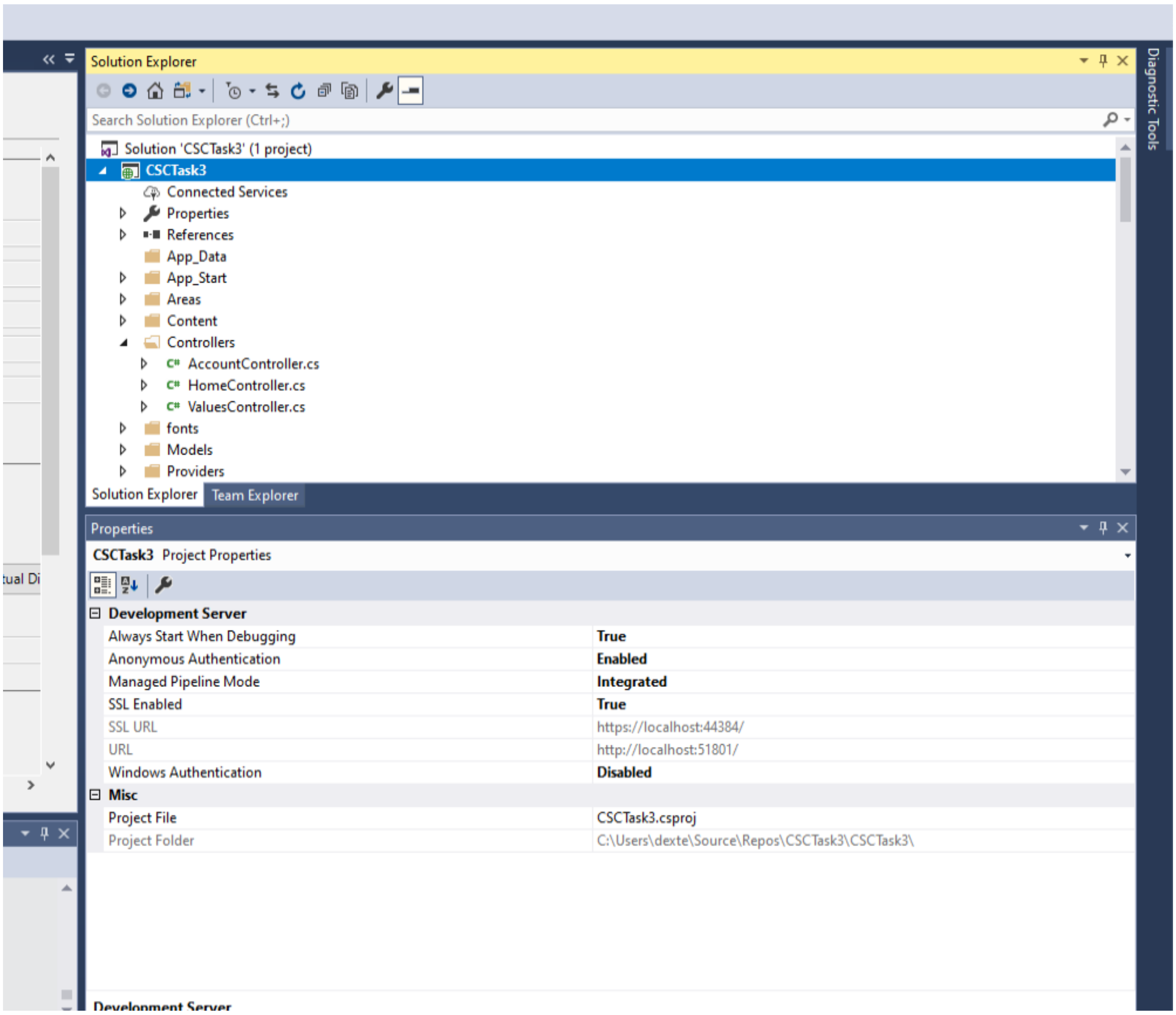


```
using System;
using System.Collections.Generic;
using System.Linq;
using System.Web;

namespace CSCTask3
{
    public class Config
    {
        public static string RecaptchaSiteKey = "6LfUhxEaAAAAACV4sb7vMUw-5
        public static string RecaptchaSecretKey = "6LfUhxEaAAAAAKPhp2MrhsF
    }
}
```

## 3. Start the project

Click on the CSCTask3 in the Solution Explorer. You should see the SSL Url in the Properties table:



Solution 'CSCTask3' (1 project)
- CSCTask3
  - Connected Services
  - Properties
  - References
  - App_Data
  - App_Start
  - Areas
  - Content
  - Controllers
    - AccountController.cs
    - HomeController.cs
    - ValuesController.cs
  - fonts
  - Models
  - Providers

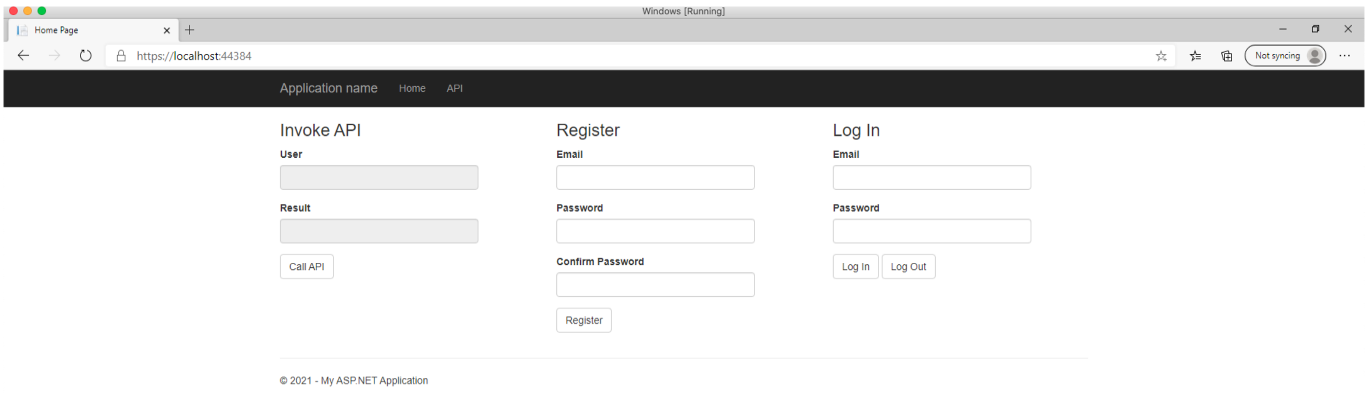
CSCTask3 Project Properties

| | |
|---|---|
| **Development Server** | |
| Always Start When Debugging | **True** |
| Anonymous Authentication | **Enabled** |
| Managed Pipeline Mode | **Integrated** |
| SSL Enabled | **True** |
| SSL URL | https://localhost:44384/ |
| URL | http://localhost:51801/ |
| Windows Authentication | **Disabled** |
| **Misc** | |
| Project File | CSCTask3.csproj |
| Project Folder | C:\Users\dexte\Source\Repos\CSCTask3\CSCTask3\ |

**Development Server**

Use this HTTPS URL to access the application instead of the HTTP one.

You can now start the project and navigate to the SSL URL:



Invoke API

User

Result

Register

Email

Password

Confirm Password

Log In

Email

Password

© 2021 - My ASP.NET Application