

Centennial College

code.NET

Video Streaming Platform API

Jai Patel and Anmol Singh

1. Introduction

Code.NET is a multipurpose managed web API built on ASP.NET ReSTful WebAPI using C#. The API is capable of reading, creating, updating, and deleting Client and Tutorial Information. The API also provides Tutorial Comments Section and Client Tutorial Section where Clients can perform read, create, and delete based on Tutorials. The API is available for use in any video or tutorial streaming platform.

2. Problem Statement

In general building a tutorial or video streaming website from scratch could be a hassle for people who are working in small teams or limited time frame. It could be difficult for people without programming background and are starting their business or hobby to make such a website. So, How do we solve the issue of database and back end management ?

3. Proposed Solution

Code.Net can help a group of people who want to build a tutorial website or a streaming website like Crunchyroll, or Edx. They can consume this API in their front-end application and won't need to worry about working in the database or back-end. Code.NET is lightweight lightning fast, and easy to manage.

API.

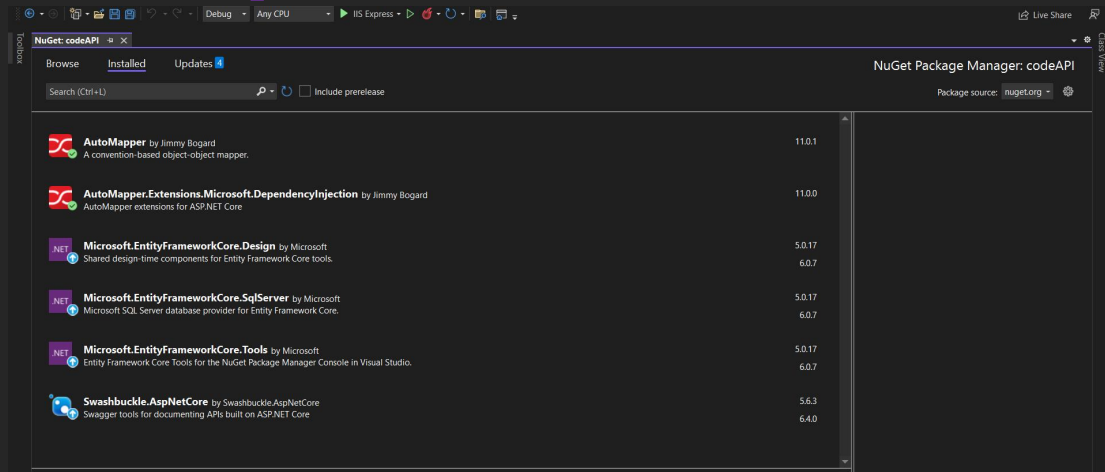
4. Technologies Used

- **ASP .NET Core ReSTful Web API**
- **AWS RDS (MS SQL Server 2019)**
- **AWS Elastic Beanstalk**
- **Google APIGEE API management**

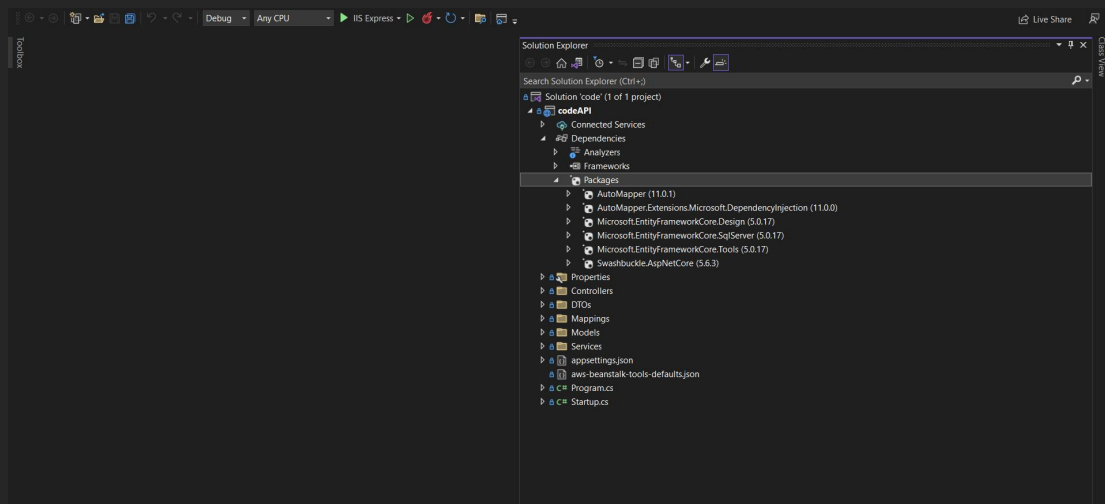
5. Implementation and Skills Learned

- **AWS RDS (MS SQL Server 2019)**
- **Web API Implementation using Asp.Net Core Web API**
- **Web API on AWS Elastic Beanstalk**
- **API management through Google APIGEE**
- **Consuming API using ASP.NET Web MVC**

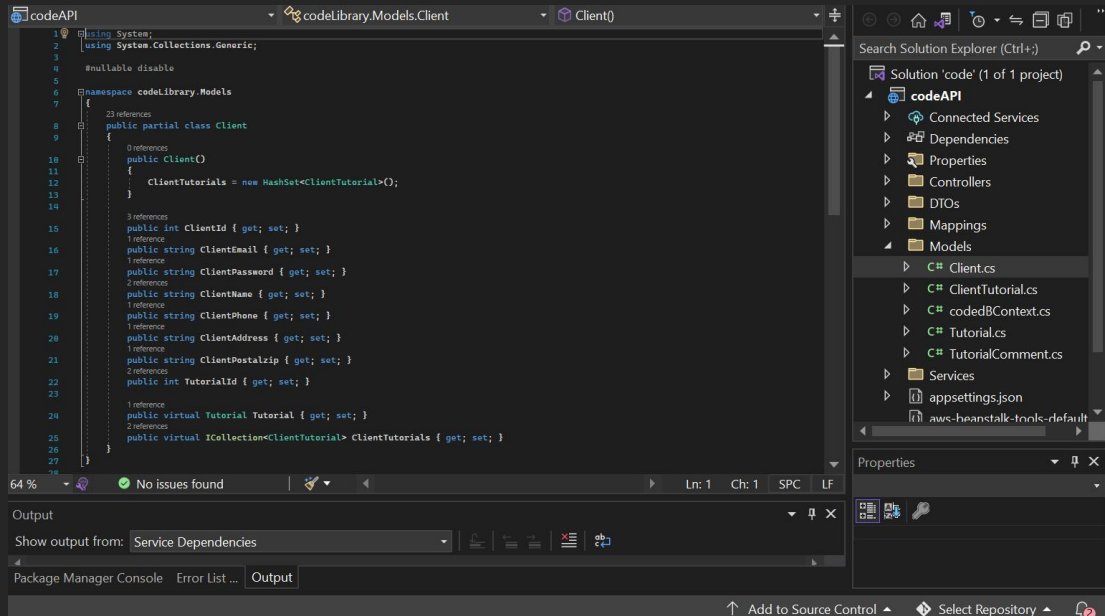
6. Dependencies



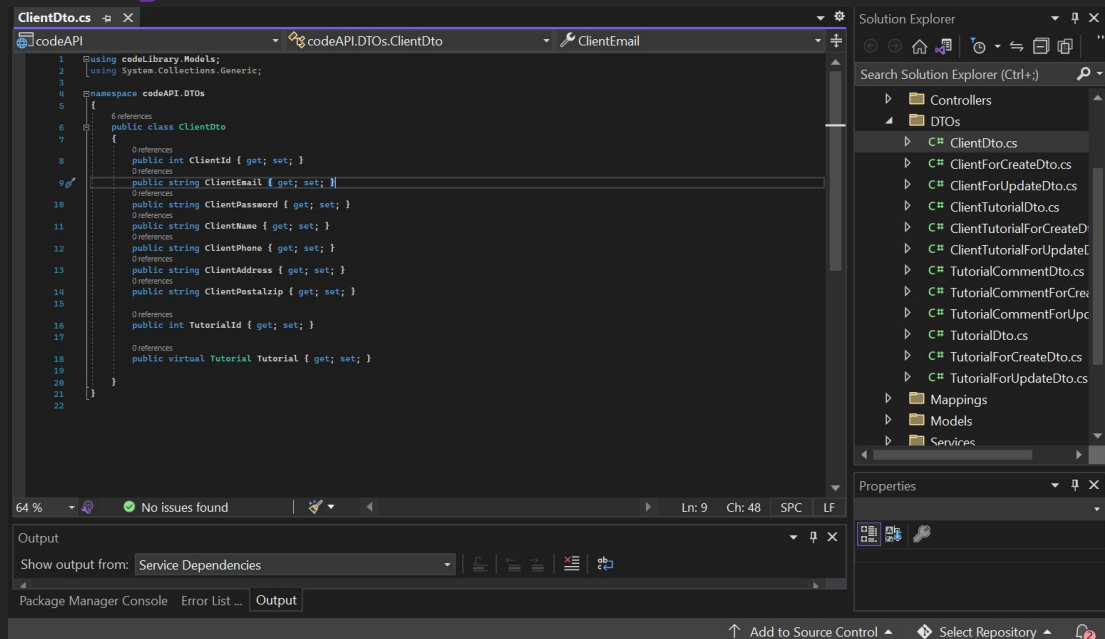
7. Application Structure for API



8. Models



9. Data Transfer Objects



ClientForCreateDto.cs ClientDto.cs

codeAPI codeAPI.DTOS.ClientForCreateDto ClientName

```
1 using System.ComponentModel.DataAnnotations;
2
3 namespace codeAPI.DTOS
4 {
5     [4 references]
6     public class ClientForCreateDto
7     {
8         [Required(ErrorMessage = "Client name required")]
9         [0 references]
10         public string ClientName { get; set; }
11
12         [Required(ErrorMessage = "Client email required")]
13         [0 references]
14         public string ClientEmail { get; set; }
15
16         [Required(ErrorMessage = "Client password required")]
17         [0 references]
18         public string ClientPassword { get; set; }
19
20         [Required(ErrorMessage = "Client phone required")]
21         [0 references]
22         public string ClientPhone { get; set; }
23
24         [Required(ErrorMessage = "Client address required")]
25         [0 references]
26         public string ClientAddress { get; set; }
27
28         [Required(ErrorMessage = "Client postal code required")]
29         [0 references]
30         public string ClientPostalzip { get; set; }
31
32         [0 references]
33         public int TutorialId { get; set; }
34     }
35 }
```

14 % No issues found Ln: 1 Ch: 1 SPC LF

Output

Show output from: Service Dependencies

Package Manager Console Error List ... Output

Solution Explorer

- Controllers
- DTOS
 - ClientDto.cs
 - ClientForCreateDto.cs
 - ClientForUpdateDto.cs
 - ClientTutorialDto.cs
 - ClientTutorialForCreateD
 - ClientTutorialForUpdate[
 - TutorialCommentDto.cs
 - TutorialCommentForCre
 - TutorialCommentForUpc
 - TutorialDto.cs
 - TutorialForCreateDto.cs
 - TutorialForUpdateDto.cs
- Mappings
- Models
- Services

Properties

ClientForUpdateDto.cs ClientForCreateDto.cs ClientDto.cs

codeAPI codeAPI.DTOS.ClientForUpdateDto ClientName

```
1 using System.ComponentModel.DataAnnotations;
2
3 namespace codeAPI.DTOS
4 {
5     public class ClientForUpdateDto
6     {
7         [Required(ErrorMessage = "Client name required")]
8         public string ClientName { get; set; }
9
10         [Required(ErrorMessage = "Client email required")]
11         public string ClientEmail { get; set; }
12
13         [Required(ErrorMessage = "Client password required")]
14         [0 references]
15         public string ClientPassword { get; set; }
16
17         [Required(ErrorMessage = "Client phone required")]
18         [0 references]
19         public string ClientPhone { get; set; }
20
21         [Required(ErrorMessage = "Client address required")]
22         [0 references]
23         public string ClientAddress { get; set; }
24
25         [Required(ErrorMessage = "Client postal code required")]
26         [0 references]
27         public string ClientPostalzip { get; set; }
28
29         [0 references]
30         public int TutorialId { get; set; }
31     }
32 }
```

14 % No issues found Ln: 1 Ch: 1 SPC LF

Output

Show output from: Service Dependencies

Package Manager Console Error List ... Output

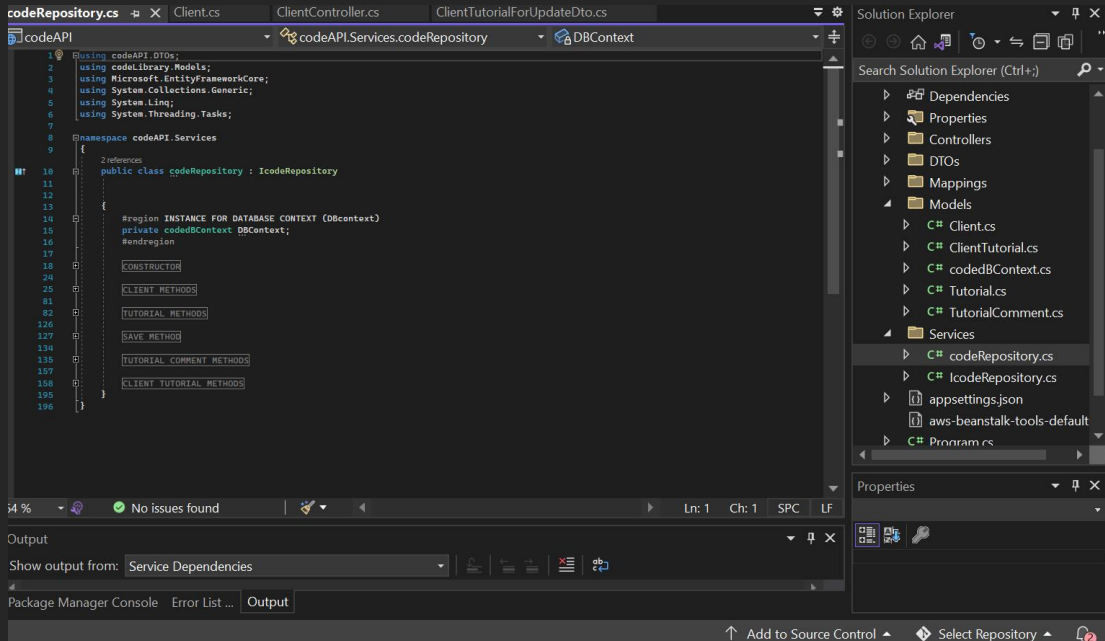
Solution Explorer

- Controllers
- DTOS
 - ClientDto.cs
 - ClientForCreateDto.cs
 - ClientForUpdateDto.cs
 - ClientTutorialDto.cs
 - ClientTutorialForCreateD
 - ClientTutorialForUpdate[
 - TutorialCommentDto.cs
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 - TutorialDto.cs
 - TutorialForCreateDto.cs
 - TutorialForUpdateDto.cs
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- Models
- Services

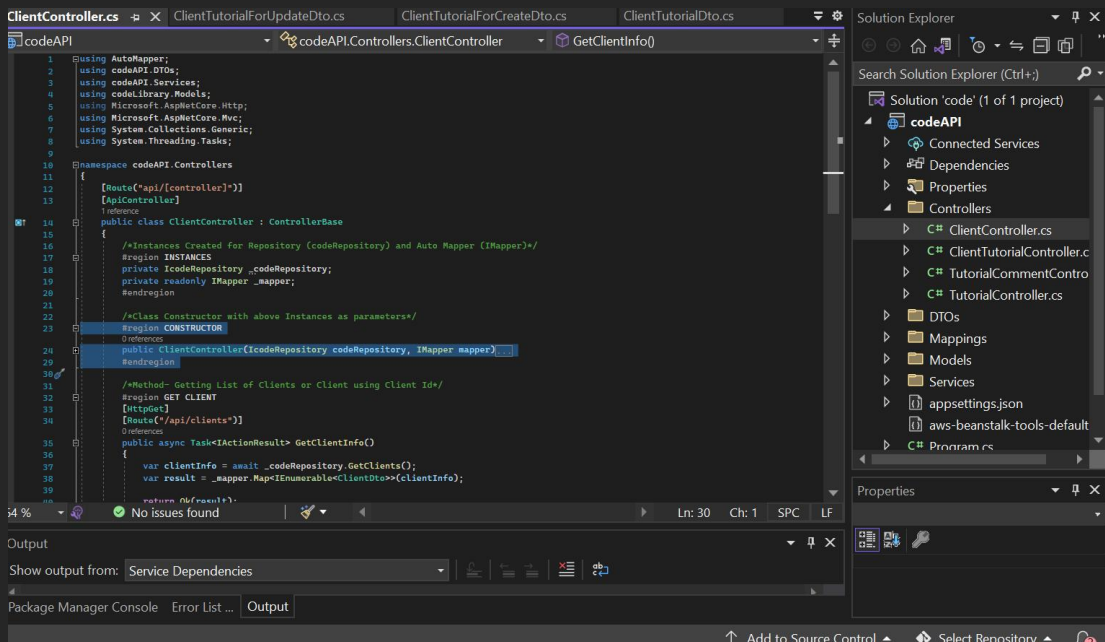
Properties

Add to Source Control Select Repository

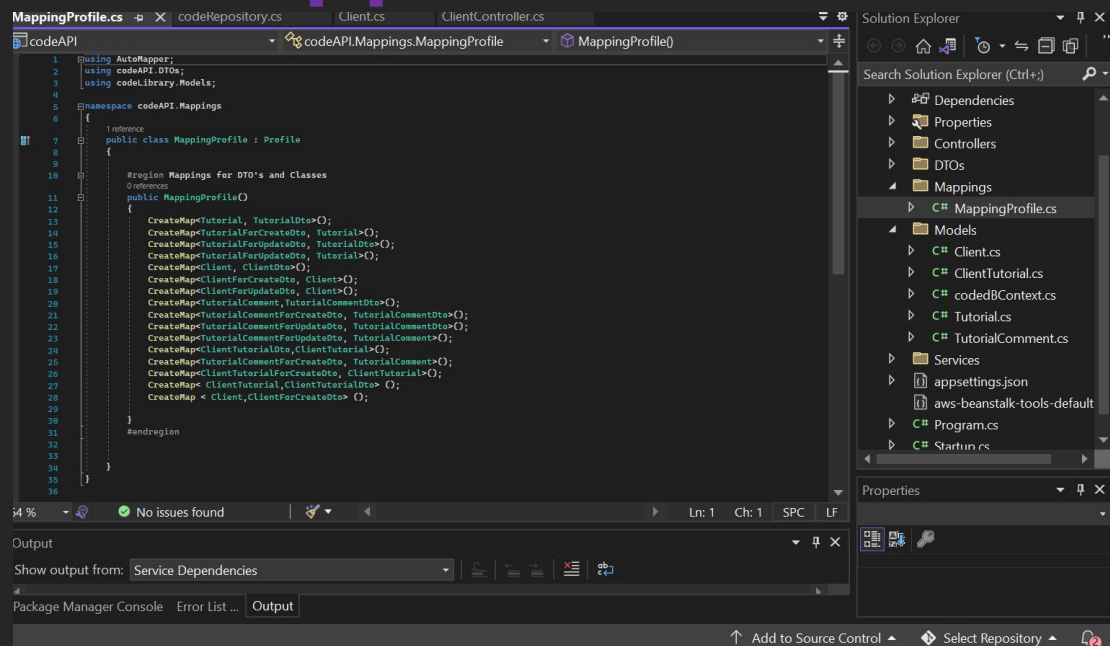
10. Repository



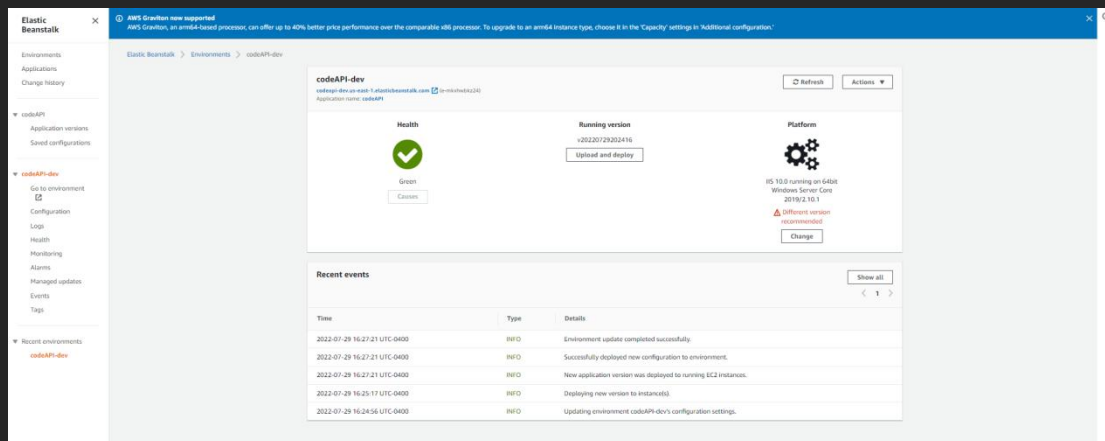
11. Controllers



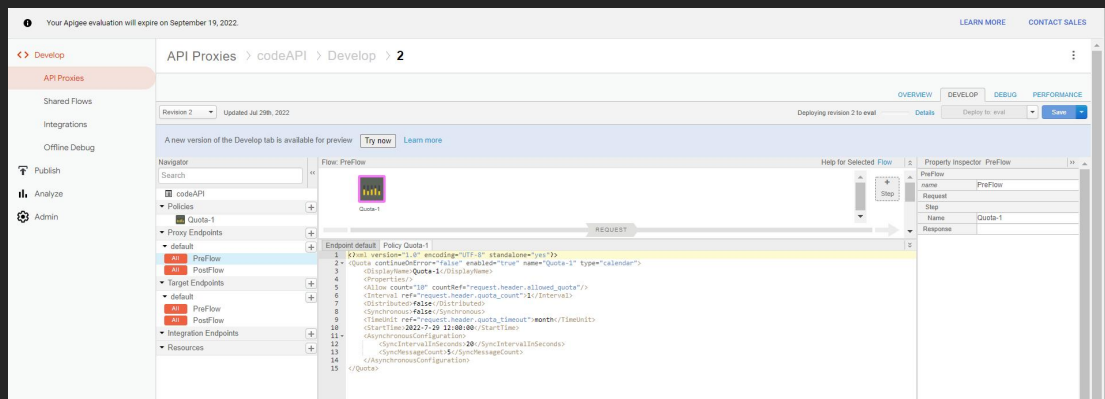
12. Mapper



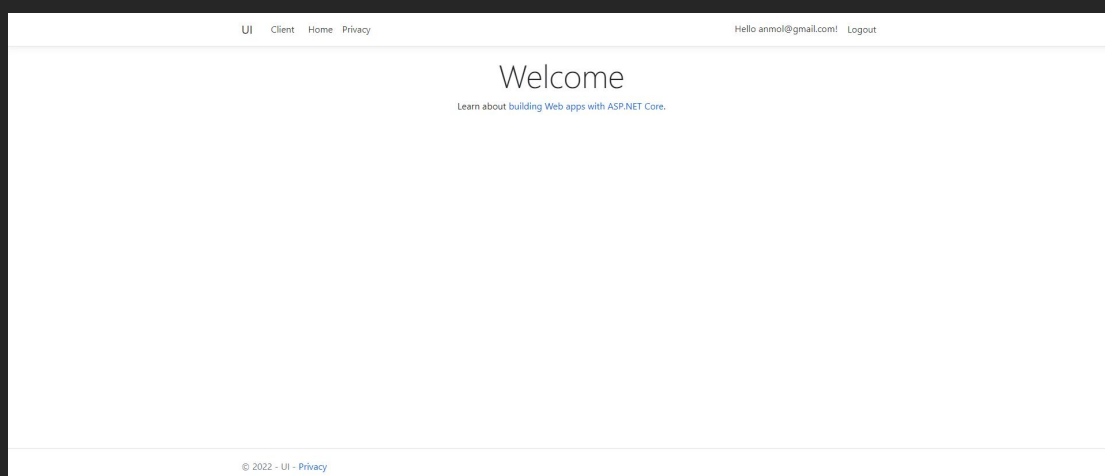
13. AWS



14. APIGEE



15. Consuming API Through ASP.NET Web MVC HTTP- Client



UIClientHomePrivacy

RegisterLogin

Log in

Use a local account to log in.

Email

Annol@gmail.com

Password

.....

☐ Remember me?

Log in

[Forgot your password?](#)

[Register as a new user](#)

[Resend email confirmation](#)

Use another service to log in.

There are no external authentication services configured. See this article about setting up this ASP.NET application to support logging in via external services.

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UIClientHomePrivacy

RegisterLogin

Register

Create a new account.

Email

annol@gmail.com

Password

.....

Confirm password

.....

Register

Use another service to register.

There are no external authentication services configured. See this article about setting up this ASP.NET application to support logging in via external services.

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UIClientHomePrivacy

Hello annol@gmail.com!Logout

UpdateClient

Client

Clientid

42

ClientEmail

Annolsingh@gmail.com

ClientName

Rajveer Singh

ClientPhone

+919451289362

ClientAddress

Brampton

ClientPostalzip

L6X 2Z1

Save

[Back to List](#)

Index

[Create New](#)

ClientName	ClientEmail	
Anmol Singh	Anmolsingh@gmail.com	Edit Details Delete
Anmol Singh	anmol@gmail.com	Edit Details Delete
Jai	Jai@gmail.com	Edit Details Delete
jai	string	Edit Details Delete

CreateClient

Client

ClientEmail

anmol@gmail.com

ClientName

Anmol Singh

ClientPhone

4372368350

ClientAddress

11 Speedwell Street

ClientPostalzip

L6X 2Z1

[Create](#)[Back to List](#)

Index

[Create New](#)

ClientName	ClientEmail	
Anmol Singh	Anmolsingh@gmail.com	Edit Details Delete
Jai	string	Edit Details Delete
Jai	Jai@gmail.com	Edit Details Delete

GetClientById

Client

Clientid	47
ClientEmail	anmol@gmail.com
ClientName	Anmol Singh
ClientPhone	4372368350
ClientAddress	11 Speedwell Street
ClientPostalzip	L6X 2Z1

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16. Conclusion

**Code.Net can help a group of people who want to build a tutorial website or a streaming website like Crunchyroll, or Edx. They can consume this API in their front-end application and won't need to worry about working in the database or back-end. Code.NET is lightweight lightning fast, and easy to manage.
API.**