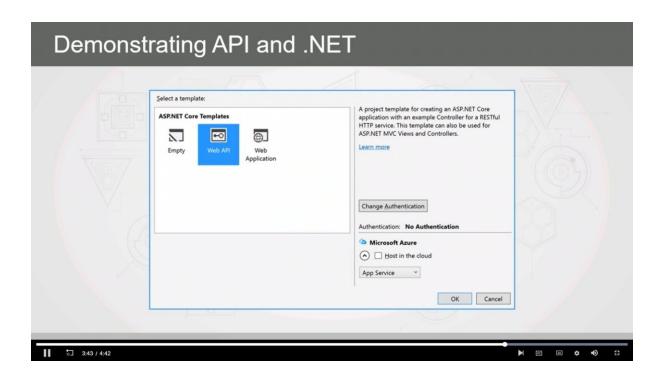
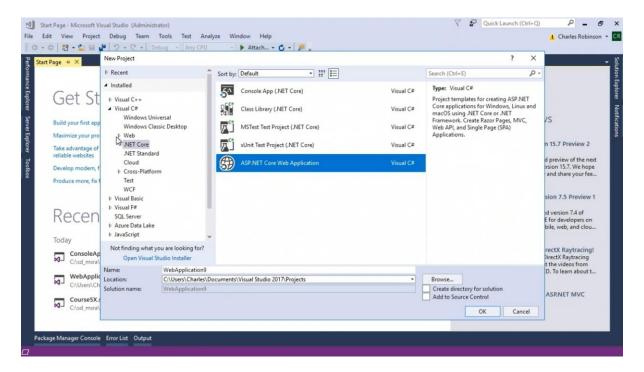
## Overview of Design

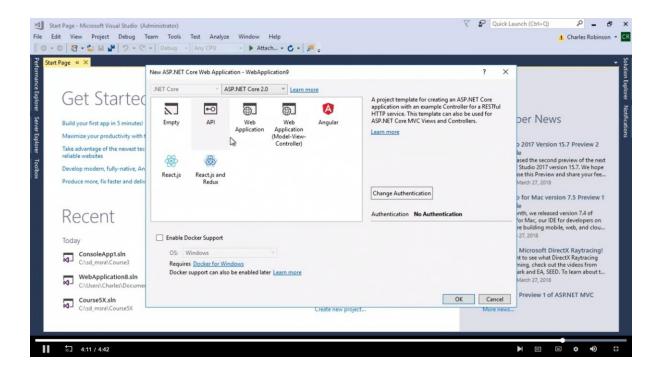
- Well-designed REST API
- · Basic steps:
  - Install .NET Core
  - · Create a web application with ASP.NET
    - Choose a Web API application
    - Startup.cs
    - Global.asax
  - · Create an API controller
    - GET method to list items

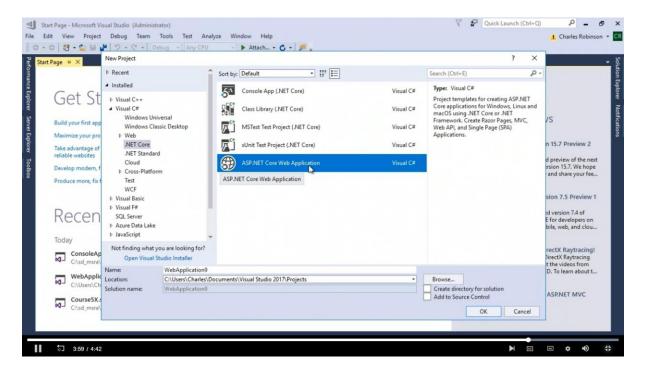
## Implementation of Design

- Data Model
  - Design the model according to the specifications
  - Object representing data in the app
- Define the controllers
  - · Define the necessary controllers for the API
  - · Object that handles requests
- Configure the controllers

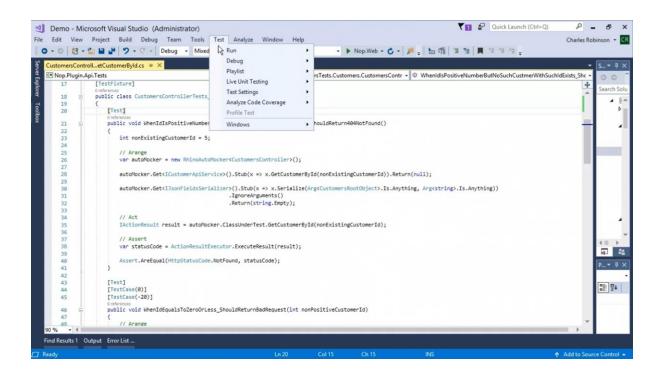


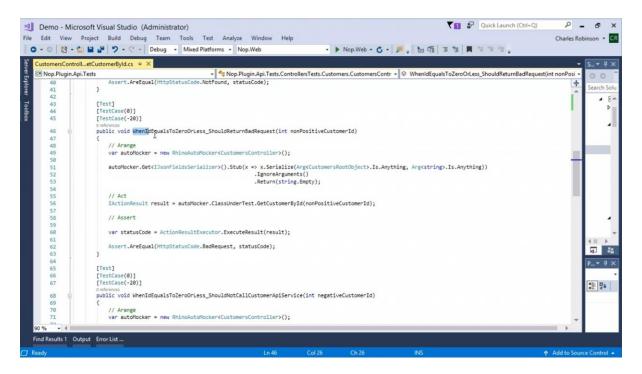






## Unit testing



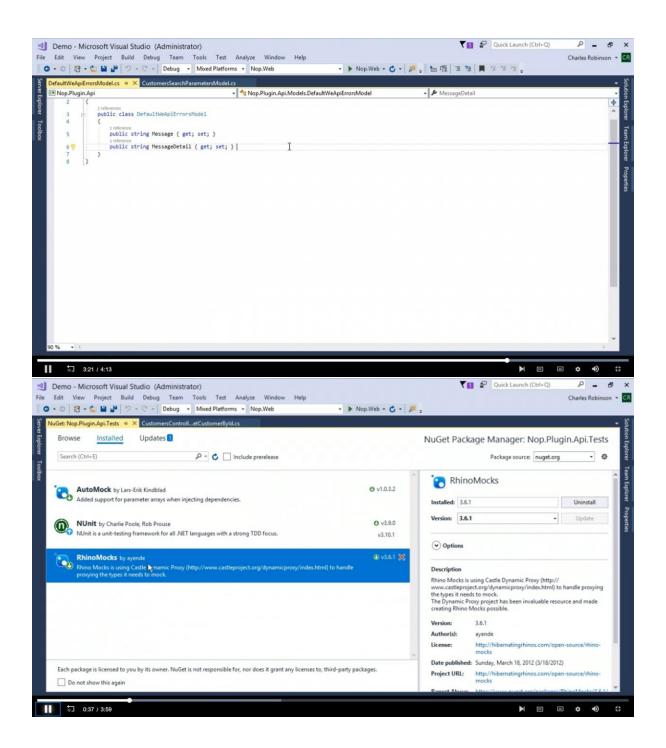


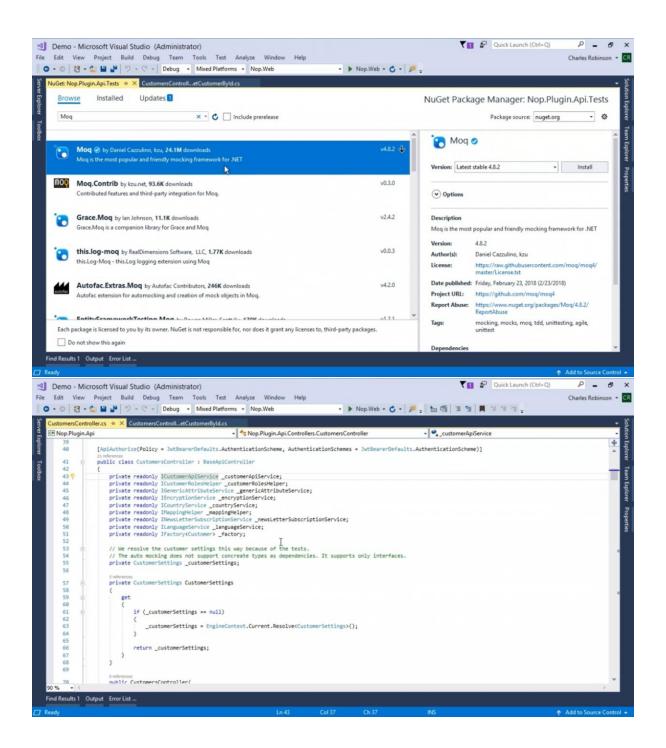
```
Quick Launch (Ctrl+Q)
                                                                                                                                                                                                                                                      P - 6 X
Demo - Microsoft Visual Studio (Administrator)
File Edit View Project Build Debug Team Tools Test Analyze Window Help

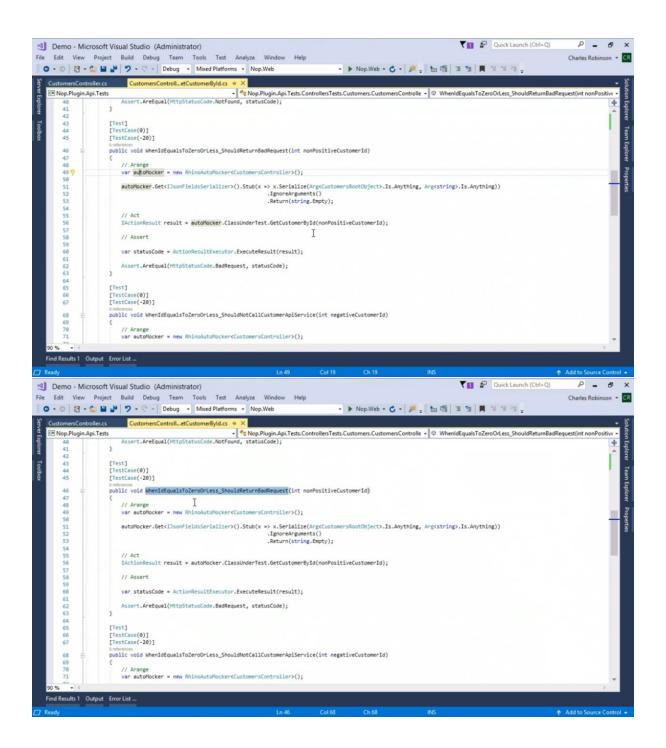
O - O 183 - 2 18 19 O - C - Debug - Mixed Platforms - Nop.Web

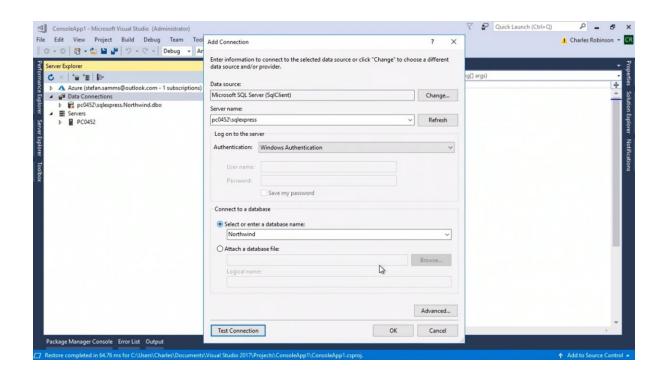
CustomersSearchParametersModel.cs - 2 X

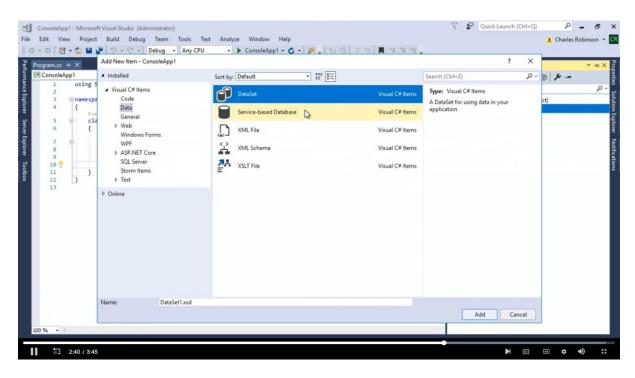
Window Project Mixed Platforms - Nop.Web
                                                                                                                                                                                                                                                   Charles Robinson • CR
                                                                                                                                       • Nop.Web • 🖒 • | 🎜 🛫 🔚 🏗 | 🖫 🖫 🗎 🗎 🗎
                                                                              • 🔩 Nop.Plugin.Api.Models.CustomersParameters.CustomersSearchParam • 🕡 CustomersSearchParametersModel()
                          using Microsoft.AspNetCore.Mvc;
                           // JsonProperty is used only for swagger
[ModelBinder(typeof(ParametersModelBinder<CustomersSearchParametersModel>))]]
           9
                            public class CustomersSearchParametersModel
            11
12
                                 6 references
public CustomersSearchParametersModel()
{
                               Order = "Id";
Query = string.Empty;
Page = Configurations.DefaultPageValue;
Limit = Configurations.DefaultLimit;
Fields = string.Empty;
           13
14
15
16
17
18
19
20
21
22
23
24
25
                                 /// <summary>
/// Fleid and direction to order results by (default: id DESC)
/// </summary>
[JsonProperty("order")]
                                 public string Order { get; set; }
            26
27
28
29
38
31
                                                                                                                                                                 Ι
                                 /// <summary>
/// Text to search customers
/// </summary>
[JsonProperty("query")]
                                 public string Query { get; set; }
            32
33
34
35
36
                                /// <summary>
/// Page to show (default: 1)
/// </summary>
   1:54 / 4:13
                                                                                                                                                                                                                            ▶  ⇔ •)
```

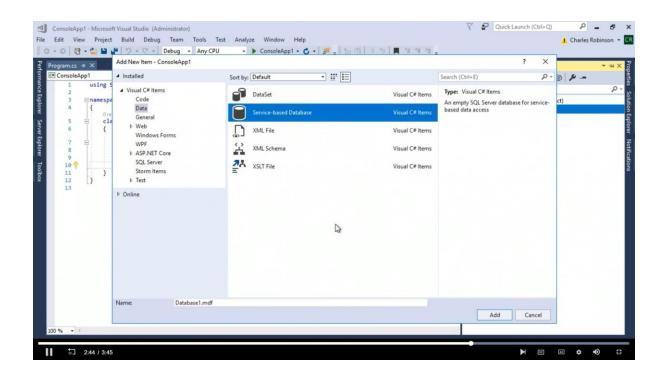


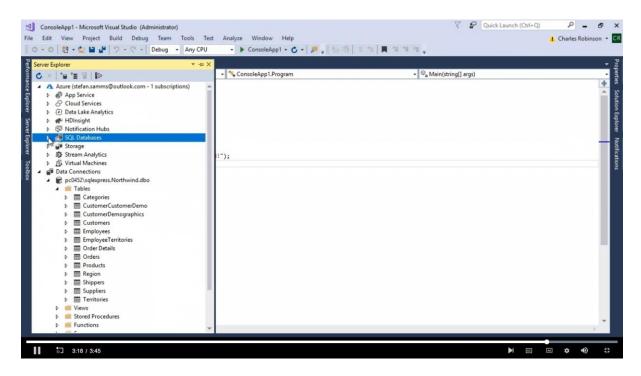


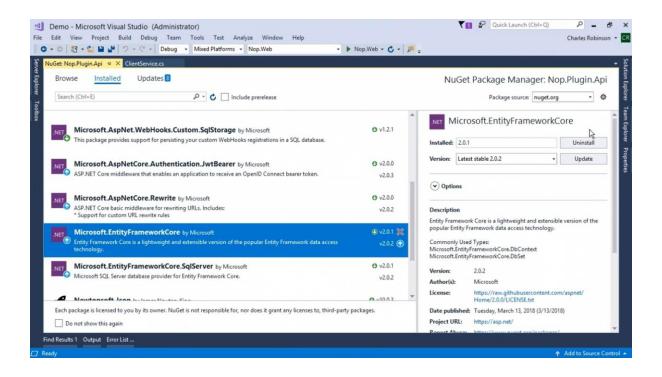


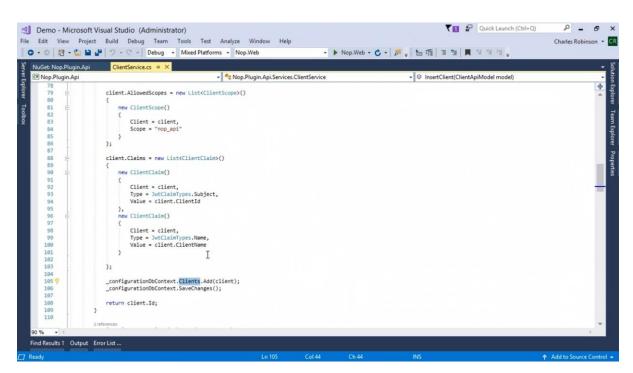


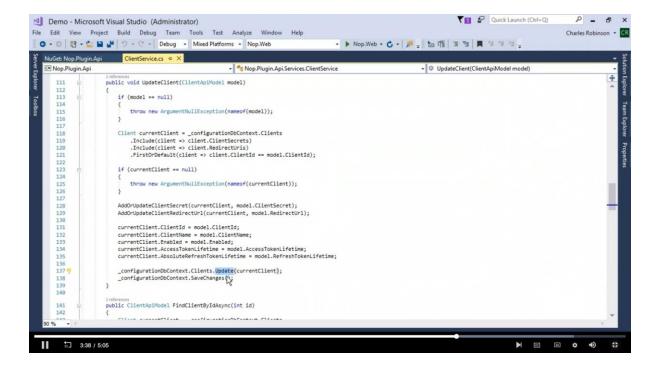


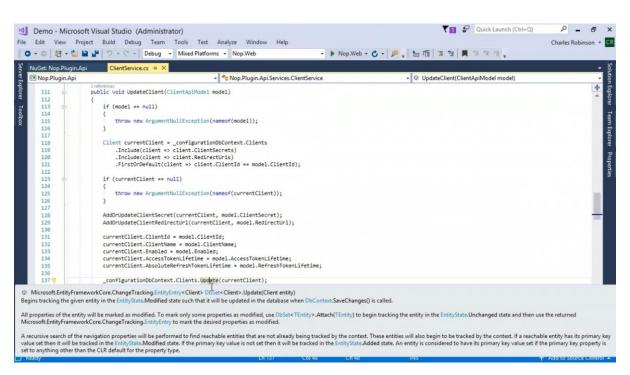












```
▼ ¶ Quick Launch (Ctrl+Q)
                                                                                                                                                                                                                              P - 5 x
Demo - Microsoft Visual Studio (Administrator)
File Edit View Project Build Debug Team Tools Test Analyze Window Help
                                                                                                                                                                                                                          Charles Robinson - CR
                                                                                                                            · ▶ Nop.Web · C · 馬 . 查 唔 图 图 图 图 制 剂 剂 剂 .
     NuGet: Nop.Plugin.Api
                                    ClientService.cs ⊕ X

→ FindClientByldAsync(int id)

      Nop.Plugin.Api
         139
140
         141
142
143
144
                              2 references
public ClientApiModel FindClientByIdAsync(int id)
                                 Client currentClient = _configurationDbContext.Clients
.Include(client => client.ClientSecrets)
.Include(client => client.RedirectUris)
.FirstOrDefault(client => client.Id == id);
         144
145
146
147
148 9
149
158
                                  return currentClient?.ToApiModel();
                              2 references
public ClientApiModel FindClientByClientId(string clientId)
         151
152
153
154
155
156
157
158
159
160
                                 return currentClient?.ToApiModel();
                              2 references
public void DeleteClient(int id)
         161
162
163
164
165
166
167
168
                                  if (client != null)
    Find Results 1 Output Error List ...
                                                                                                                                                                              VII P Quick Launch (Ctrl+Q)
Demo - Microsoft Visual Studio (Administrator)
File Edit View Project Build Debug Team Tools Test Analyze Window Help
                                                                                                                                                                                                                          Charles Robinson - CR
O - O 18 - 🔄 🔛 🔑 🤊 - 🤊 - | Debug - Mixed Platforms - Nop.Web
                                                                                                                            - ▶ Nop.Web - C - 周 - 告 情 国 2 ■ 1 1 1 1 1 1 1
     NuGet: Nop.Plugin.Api
                                    ClientService.cs ⇒ ×
       Nop.Plugin.Api
                                                                                 - 🧠 Nop.Plugin.Api.Services.ClientSer
                              public ClientApiModel FindClientByClientId(string clientId)
         151
152
153
154
155
156
157
158
159
160
                                 Client currentClient = _configurationDoContext.Clients
    Include(client => client.ClientSecrets)
    Include(client => client.RedirectUris)
    .FirstDrDeFault(client => client.ClientId == clientId);
                                 return currentClient?.ToApiModel();
                              2 references
public void DeleteClient(int id)
         161
162
163
164
165
166
167
168
169
170
171
172
173
174
                                 Client client = _configurationDbContext.Clients
    Include(entity => entity.ClientSecrets)
    Include(entity => entity.RedirectUris)
    FirstOrDefault(x => x.Id == id);
                                       _configurationObContext.Clients.Remove(client);
_configurationObContext.S
                                                                       DbSet < Client > IConfiguration DbContext. Clients { get; set; } Gets or sets the clients.
                              2 references
private void AddOrUpdateClientRedirectUrl(Client currentClient, string modelRedirectUrl)
          175
176
177
178
179
                                   // Ensure the client redirect url collection is not null
if (currentClient.RedirectUris == null)
                                       currentClient.RedirectUris = new List<ClientRedirectUri>();
            4:40 / 5:05
```

## Logging

