QA Cinema Site

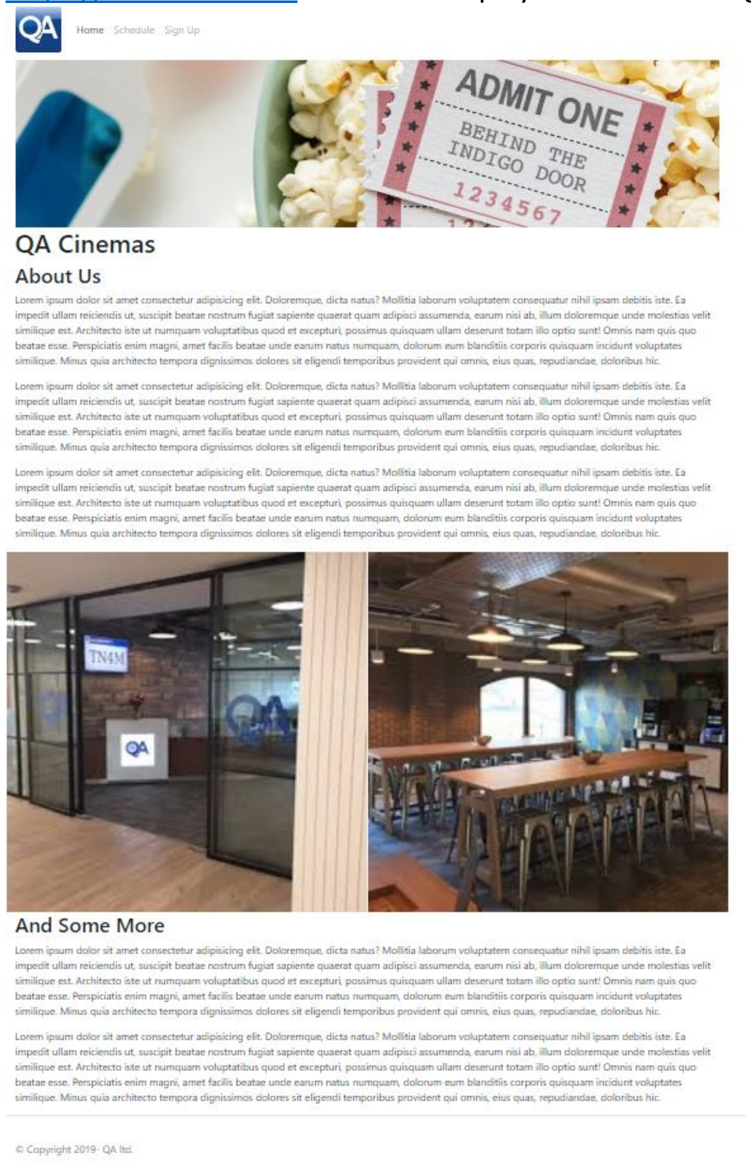
The web UI has already been written in React. Your job is to create an API service (written in C#) to provide the UI with appropriate services.

Launching the React App

To see the react QA cinema website you need to:

1. Download the react logic from here: [QACS-TL/QACinemaProjectStarter (github.com)]()
2. Extract the zipped up logic into a folder of your choosing.
3. The extracted data includes a file called FilmsDB.sql which you can run in SQL Server Management System to create the Films database to be used by your C#.
4. start up an instance of Visual Studio Code.
5. Select Open Folder from the File menu and hunt down the folder called ReactQACinema that contains the react logic.
6. Select New Terminal from the Terminal window and point it at the folder that contains the package.json file. Then enter the following statements at the terminal (they will take a few minutes to execute):
    a. npm i
    b. npm start

7. Eventually a browser window should open which navigates to https://localhost:3000 which will display the site’s landing page:



QA Cinemas

About Us

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And Some More

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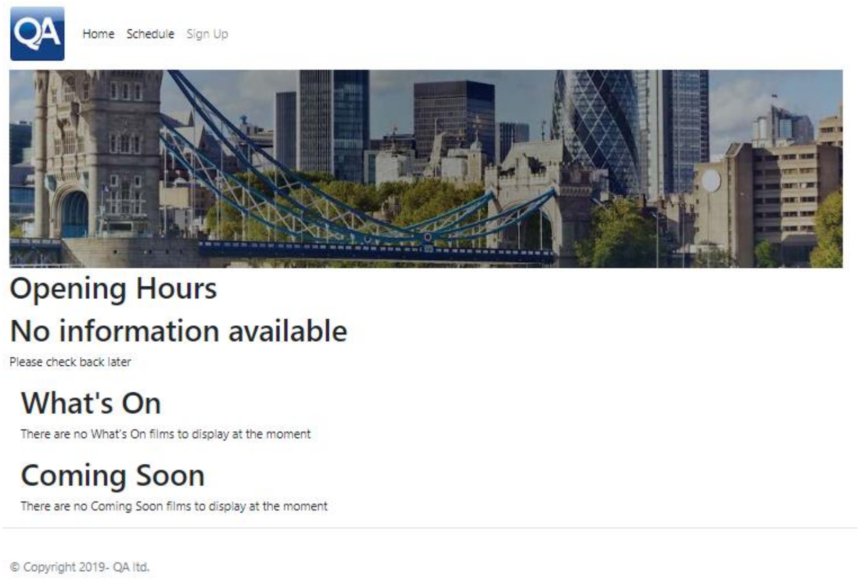
8. Click on the website's Schedule menu option. You should see the following page:



Opening Hours

No information available

Please check back later

What's On

There are no What's On films to display at the moment

Coming Soon

There are no Coming Soon films to display at the moment

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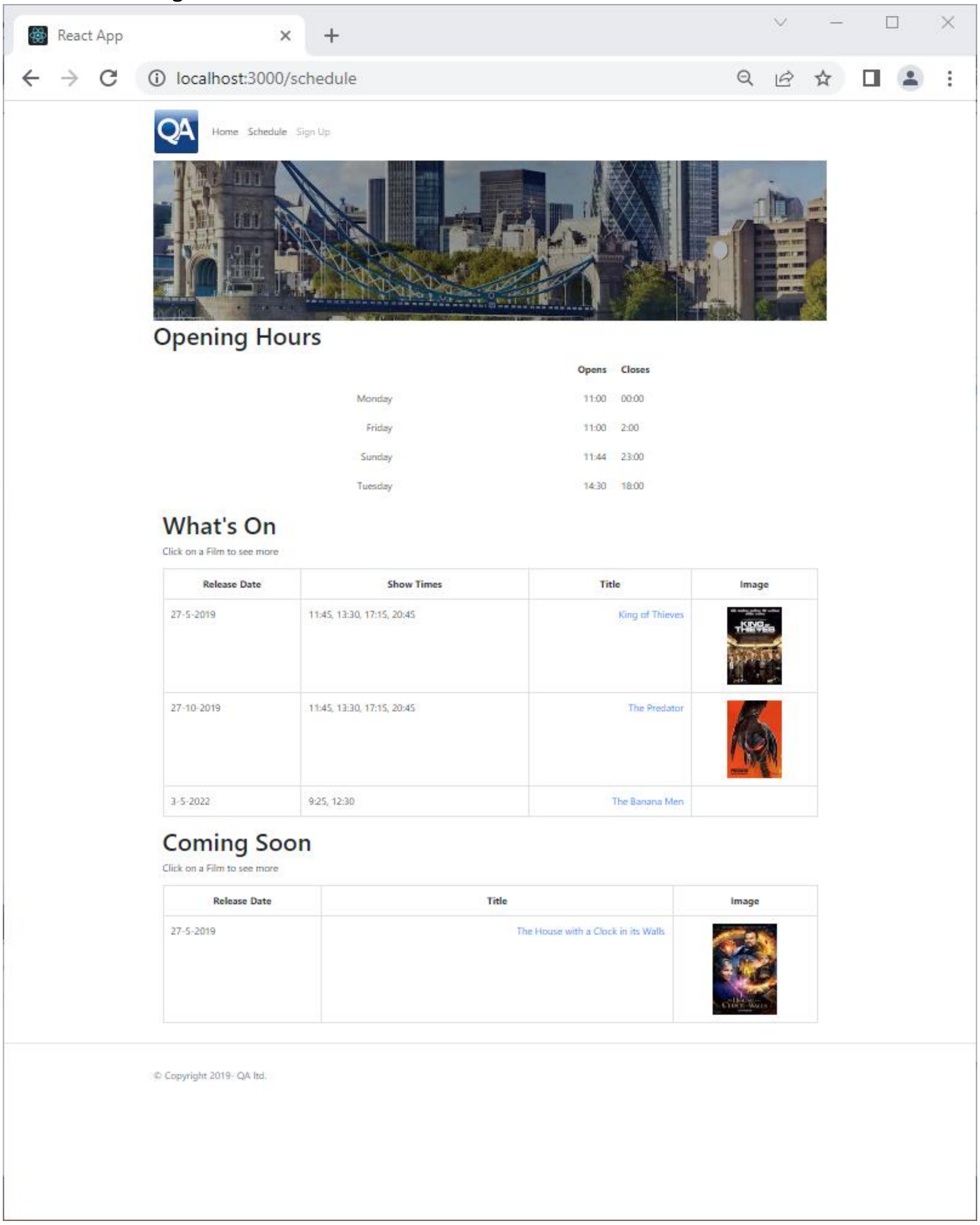
The opening hours, what's on and coming soon sections are attempting to call on an API server that should produce appropriate information (in JSON format). This is the server you need to develop in C#. On completion the page should look something like the following:



React App

localhost:3000/schedule

Home Schedule Sign Up

Opening Hours

	Opens	Closes
Monday	11:00	00:00
Friday	11:00	2:00
Sunday	11:44	23:00
Tuesday	14:30	18:00

What's On

Click on a Film to see more

Release Date	Show Times	Title	Image
27-5-2019	11:45, 13:30, 17:15, 20:45	King of Thieves	
27-10-2019	11:45, 13:30, 17:15, 20:45	The Predator	
3-5-2022	9:25, 12:30	The Banana Men	

Coming Soon

Click on a Film to see more

Release Date	Title	Image
27-5-2019	The House with a Clock in its Walls	

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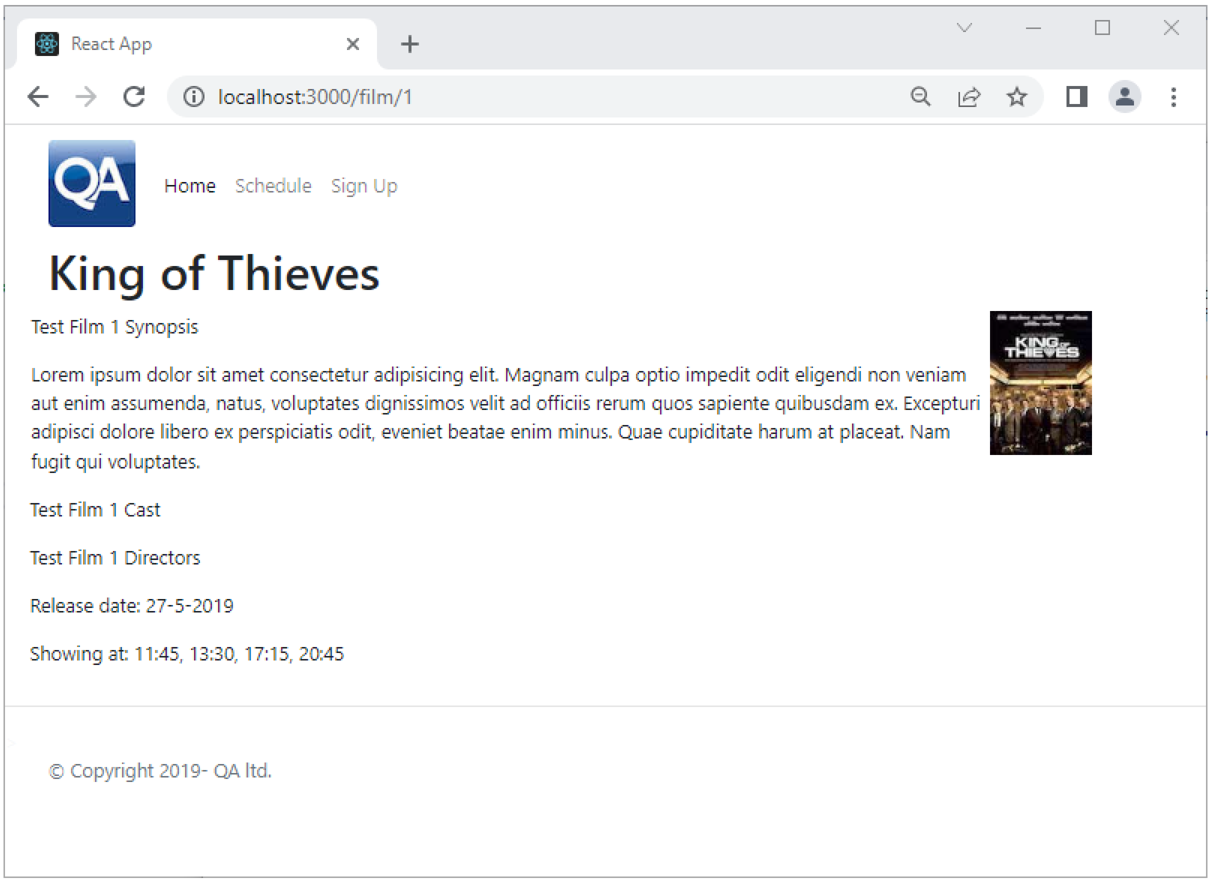
9. Users should be able to click on a film Title to see further information about a selected film:



King of Thieves

Test Film 1 Synopsis

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Test Film 1 Cast

Test Film 1 Directors

Release date: 27-5-2019

Showing at: 11:45, 13:30, 17:15, 20:45

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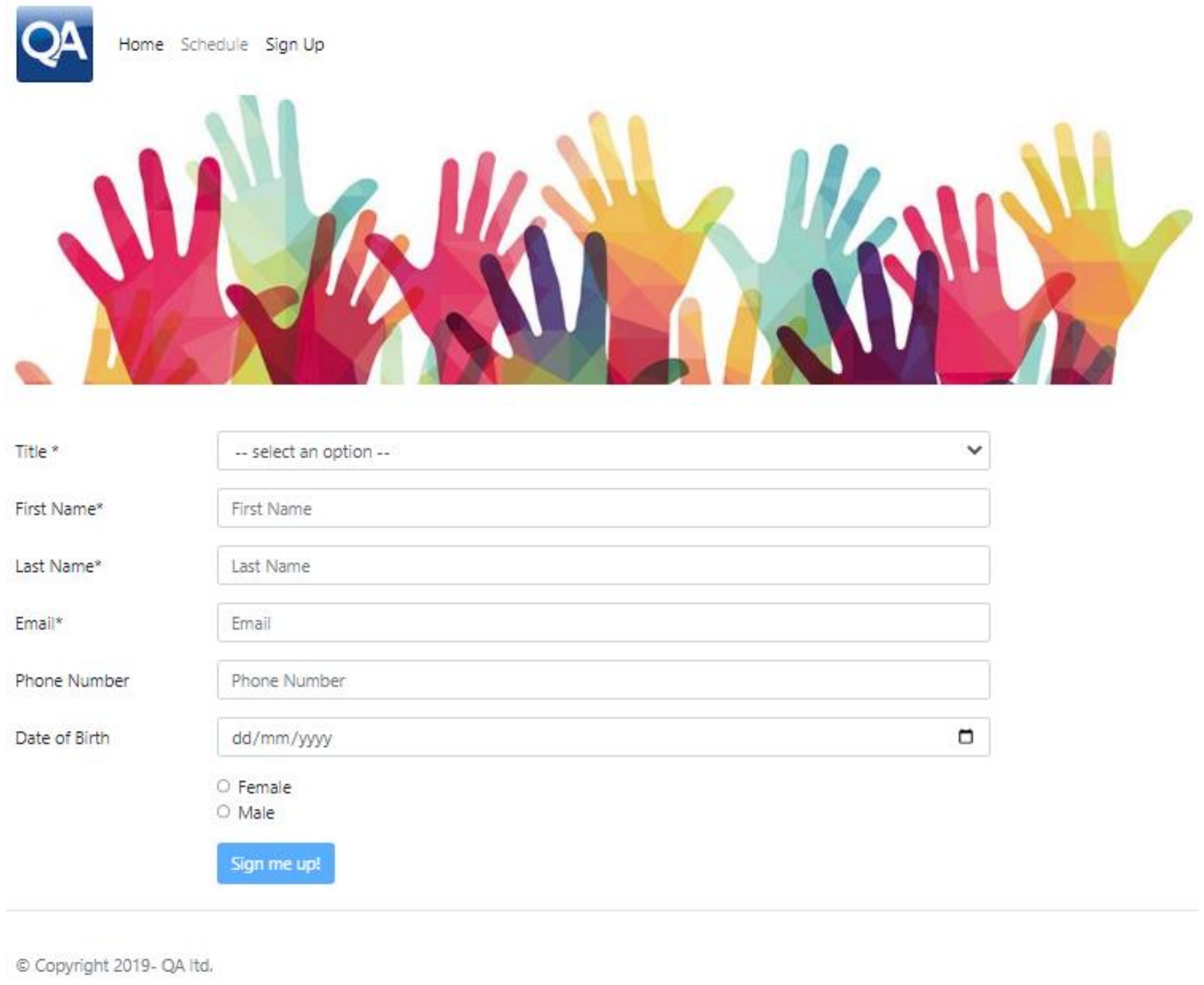
10. Click on the Sign Up menu and you should see the following:



Title *	-- select an option --
First Name*	First Name
Last Name*	Last Name
Email*	Email
Phone Number	Phone Number
Date of Birth	dd/mm/yyyy
	○ Female
	○ Male

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On filling in the various controls the user should be able to click on the sign me up button and have their details stored in the application's database

API End-Points

The react app is listening on the following URLs for the various pieces of information:

Opening times:

```
https://localhost:7133/api/openings
```

Expects data in the following format:

```
[
  {
    "id": 1,
    "day": "Monday    ",
    "opening": "11:00     ",
    "close": "00:00     "
  },
  {
    "id": 2,
    "day": "Friday    ",
    "opening": "11:00     ",
    "close": "2:00      "
  },
  {
    "id": 3,
    "day": "Sunday    ",
    "opening": "11:44     ",
    "close": "23:00     "
  },
  {
    "id": 4,
    "day": "Tuesday   ",
    "opening": "14:30     ",
    "close": "18:00     "
  }
]
```

Films by Status:
Currently Showing Films (status = 1)

```
https://localhost:7133/api/films/filmsbystatus/1
```

Coming Soon (status = 2)

```
https://localhost:7133/api/films/filmsbystatus/1
```

Expects data in the following format:

```
[
    {
        "id": 1,
        "title": "King of Thieves",
        "synopsis": "Test Film 1 Synopsis",
        "cast": "Test Film 1 Cast",
        "directors": "Test Film 1 Directors",
        "showingTimes": "11:45, 13:30, 17:15, 20:45",
        "releaseDate": "2019-05-27T00:00:00",
        "filmStatus": 1,
        "image_id": 1
    },
    {
        "id": 2,
        "title": "The Predator",
        "synopsis": "Test Film 2 Synopsis",
        "cast": "Test Film 2 Cast",
        "directors": "Test Film 2 Directors",
        "showingTimes": "11:45, 13:30, 17:15, 20:45",
        "releaseDate": "2019-10-27T00:00:00",
        "filmStatus": 1,
        "image_id": 2
```

```
  },
  {
    "id": 4,
    "title": "The Banana Men",
    "synopsis": "Test Film 4 Synopsis",
    "cast": "Test Film 4 Cast",
    "directors": "Test Film 4 Directors",
    "showingTimes": "9:25, 12:30",
    "releaseDate": "2022-05-03T00:00:00",
    "filmStatus": 1,
    "image_id": 4
  }
]
```

Film Images:

`https://localhost:7133/api/filmImages/id`

Where id is an integer and the id of the selected film image

Expects data in the following format:

```
{
  "id": 2,
  "title": "The Predator",
  "src": "images/ThePredator.jpg",
  "alt": "The Predator"
}
```

Will return the following if the film has **NO** corresponding image:

```
{
  "id": 4,
  "title": "No Image",
  "src": null,
  "alt": "Image not available"
}
```

Film specific details:

`https://localhost:7133/api/films/id`

Where id is an integer and the id of the selected film

Expects data in the following format:

```
  {
    "id": 1,
    "title": "King of Thieves",
    "synopsis": "Test Film 1 Synopsis",
    "cast": "Test Film 1 Cast",
    "directors": "Test Film 1 Directors",
    "showingTimes": "11:45, 13:30, 17:15, 20:45",
    "releaseDate": "2019-05-27T00:00:00",
    "filmStatus": 1,
    "image_id": 1
  }
```

Adding new Members:

`https://localhost:7133/api/members/`

With new member details passed in the body of the request in the following format:

```
{
 "id": "0",
 "title": "Miss",
 "firstName": "Alina",
 "lastName": " Beatha",
 "email": "Alina@ Beatha.com",
 "phoneNumber": "01234567890",
 "dob": "2022-05-31T00:00:00.000Z",
 "gender": "female"
}
```

And returns the same but with the newly generated value in the Id field.

Additional Information for the C# Project

The ASP NET API Server needs to have the following logic in its Program.cs file (new logic highlighted in bold):

```
var builder = WebApplication.CreateBuilder(args);
var MyAllowSpecificOrigins = "_myAllowSpecificOrigins";
//Needed for Cors

// Add services to the container.

builder.Services.AddControllers();

// Cors allows client requests to be made from same
(localhost) machine
builder.Services.AddCors(options =>
{
    options.AddPolicy(name: MyAllowSpecificOrigins,
        policy =>
        {

policy.WithOrigins("http://localhost:3000").AllowAnyHeader().A
llowAnyMethod();
        });
});

// Learn more about configuring Swagger/OpenAPI at
https://aka.ms/aspnetcore/swashbuckle
```

```
builder.Services.AddEndpointsApiExplorer();
builder.Services.AddSwaggerGen();

var app = builder.Build();

// Configure the HTTP request pipeline.
if (app.Environment.IsDevelopment())
{
    app.UseSwagger();
    app.UseSwaggerUI();
}

app.UseCors(MyAllowSpecificOrigins); //Needed for Cors

app.UseHttpsRedirection();

app.UseAuthorization();

app.MapControllers();

app.Run();
```

The Cors logic added above is required to allow the C# project to accept requests from the react site that is being hosted on the same “localhost” server.