

MODULOAPI

- > bin
- > Context
 - C# AgendaContext.cs
- > Controllers
 - C# ContatoController.cs
 - C# UsuarioController.cs
 - C# WeatherForecastController.cs
- > Entities
 - C# Contato.cs
- > Migrations
 - C# 20220604002643_CriacaoTabelaCont...
 - C# 20220604002643_CriacaoTabelaCont...
 - C# AgendaContextModelSnapshot.cs
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 - ModuloAPI.csproj
 - C# Program.cs
 - C# WeatherForecast.cs

C# WeatherForecastController.cs

C# UsuarioController.cs

C# ContatoController.cs

{ } appsettings.Development.json X

{ } appsettings.Development.json > ...

```
1 {
2   "Logging": {
3     "LogLevel": {
4       "Default": "Information",
5       "Microsoft.AspNetCore": "Warning"
6     }
7   },
8   "ConnectionStrings": {
9     "ConexaoPadrao": "Server=localhost\\sqlexpress; Initial Catalog=Agenda; Integrated Security=True"
10  }
11 }
12
```

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ModuloAPI.csproj

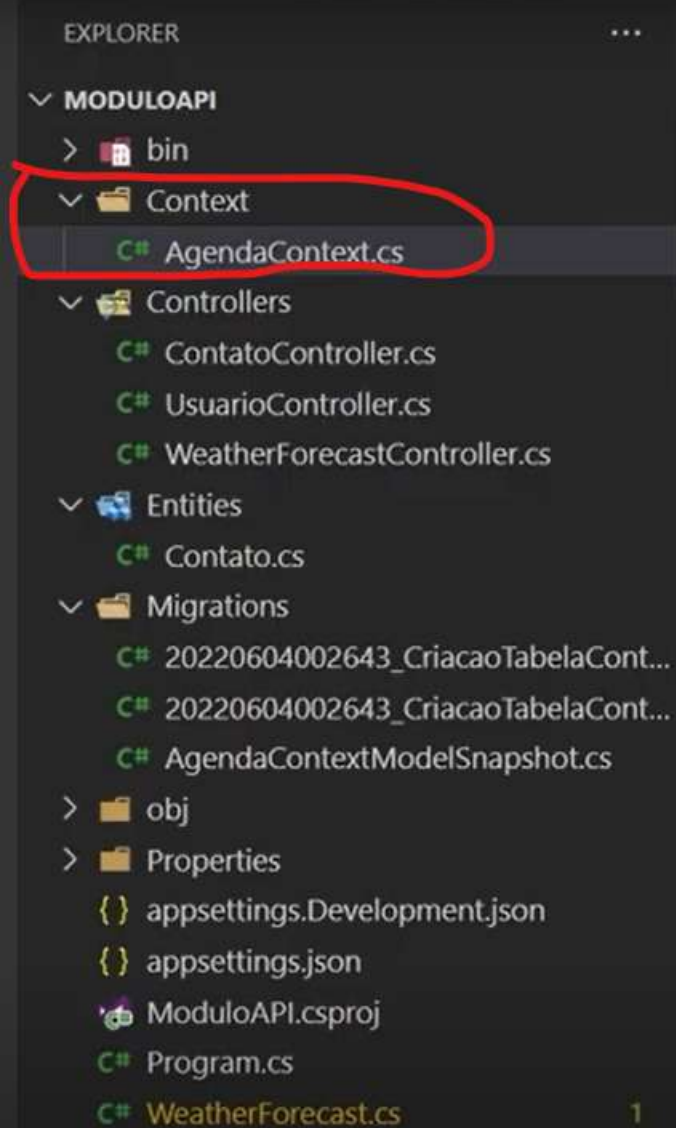
C# Program.cs

C# WeatherForecast.cs

1

Entities > C# Contato.cs > { } ModuloAPI.Entities

```
1 using System;
2 using System.Collections.Generic;
3 using System.Linq;
4 using System.Threading.Tasks;
5
6 namespace ModuloAPI.Entities
7 {
8     public class Contato
9     {
10         public int Id { get; set; }
11         public string Nome { get; set; }
12         public string Telefone { get; set; }
13         public bool Ativo { get; set; }
14     }
15 }
```



AgendaContext.cs - ModuloAPI - Visual Studio Code

C# WeatherForecastController.cs C# UsuarioController.cs C# ContatoController.cs C# AgendaContext.cs X

Context > C# AgendaContext.cs > {} ModuloAPI Context > ModuloAPI.Context.AgendaContext > Contatos

```
1 using System.Threading.Tasks;
2 using Microsoft.EntityFrameworkCore;
3 using ModuloAPI.Entities;
4
5 namespace ModuloAPI.Context
6 {
7     public class AgendaContext : DbContext
8     {
9         public AgendaContext(DbContextOptions<AgendaContext> options) : base(options)
10         {
11         }
12
13         public DbSet<Contato> Contatos { get; set; }
14     }
15 }
```


EXPLORER

...

C# WeatherForecastController.cs

C# UsuarioController.cs

C# ContatoController.cs

C# AgendaContext.cs X

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ModuloAPI.csproj

C# Program.cs

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1

Context > C# AgendaContext.cs > {} ModuloAPI.Context > ModuloAPI.Context.AgendaContext > Contatos

```
4 using System.Threading.Tasks;
5 using Microsoft.EntityFrameworkCore;
6 using ModuloAPI.Entities;
7
8 namespace ModuloAPI.Context
9 {
10     public class AgendaContext : DbContext
11     {
12         public AgendaContext(DbContextOptions<AgendaContext> options) : base(options)
13         {
14
15         }
16
17         public DbSet<Contato> Contatos { get; set; }
18     }
19 }
```

EXPLORER

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C# WeatherForecastController.cs

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C# ContatoController.cs

C# Program.cs X

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- C# WeatherForecast.cs

C# Program.cs

```
1 using ModuloAPI.Context;
2 using Microsoft.EntityFrameworkCore;
3
4 var builder = WebApplication.CreateBuilder(args);
5
6 // Add services to the container.
7 builder.Services.AddDbContext<AgendaContext>(options =>
8     options.UseSqlServer(builder.Configuration.GetConnectionString("ConexaoPadrao")));
9
10 builder.Services.AddControllers();
11 // Learn more about configuring Swagger/OpenAPI at https://aka.ms/aspnetcore/swashbuckle
12 builder.Services.AddEndpointsApiExplorer();
13 builder.Services.AddSwaggerGen();
14
15 var app = builder.Build();
16
17 // Configure the HTTP request pipeline.
18 if (app.Environment.IsDevelopment())
19 {
20     app.UseSwagger();
21     app.UseSwaggerUI();
22 }
23
24 app.UseHttpsRedirection();
25
26 app.UseAuthorization();
27
28 app.MapControllers();
29
```

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Context > C# AgendaContext.cs > {} ModuloAPI.Context > ModuloAPI.Context.AgendaContext > Contatos

```
4 using System.Threading.Tasks;
5 using Microsoft.EntityFrameworkCore;
6 using ModuloAPI.Entities;
7
8 namespace ModuloAPI.Context
9 {
10     public class AgendaContext : DbContext
11     {
12         public AgendaContext(DbContextOptions<AgendaContext> options) : base(options)
13         {
14
15         }
16
17         public DbSet<Contato> Contatos { get; set; }
18     }
19 }
```


EXPLORER

...

C# WeatherForecastController.cs

C# UsuarioController.cs

C# ContatoController.cs

C# 20220604002643_CriacaoTabelaCon...

> C# 20220604002643_CriacaoTabelaContato.cs > {} ModuloAPI.Migrations > ModuloAPI.Migrations.CriacaoTabelaContato > Down(M...

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ModuloAPI.csproj

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C# WeatherForecast.cs

1

```
4
5 namespace ModuloAPI.Migrations
6 {
7     public partial class CriacaoTabelaContato : Migration
8     {
9         protected override void Up(MigrationBuilder migrationBuilder)
10         {
11             migrationBuilder.CreateTable(
12                 name: "Contatos",
13                 columns: table => new
14                 {
15                     Id = table.Column<int>(type: "int", nullable: false)
16                         .Annotation("SqlServer:Identity", "1, 1"),
17                     Nome = table.Column<string>(type: "nvarchar(max)", nullable: true),
18                     Telefone = table.Column<string>(type: "nvarchar(max)", nullable: true),
19                     Ativo = table.Column<bool>(type: "bit", nullable: false)
20                 },
21                 constraints: table =>
22                 {
23                     table.PrimaryKey("PK_Contatos", x => x.Id);
24                 });
25         }
26
27         protected override void Down(MigrationBuilder migrationBuilder)
28         {
29             migrationBuilder.DropTable(
30                 name: "Contatos");
31         }
32     }
}
```

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C# UsuarioController.cs

C# ContatoController.cs

C# 20220604002643_CriacaoTabelaContato.cs

> C# 20220604002643_CriacaoTabelaContato.cs > { } ModuloAPI.Migrations > ModuloAPI.Migrations.CriacaoTabelaContato > { } U


```
6 {
7     public partial class CriacaoTabelaContato : Migration
8     {
9         protected override void Up(MigrationBuilder migrationBuilder)
10        {
11            migrationBuilder.CreateTable(
12                name: "Contatos",
13                columns: table => new
14                {
15                    Id = table.Column<int>(type: "int", nullable: false)
16                        .Annotation("SqlServer:Identity", "1, 1"),
17                    Nome = table.Column<string>(type: "nvarchar(max)", nullable: true),
18                    Telefone = table.Column<string>(type: "nvarchar(max)", nullable: true),
19                    Ativo = table.Column<bool>(type: "bit", nullable: false)
20                },
21                constraints: table =>
22                {
23                    table.PrimaryKey("PK_Contatos", x => x.Id);
24                });
25        }
26    }
27 }
```

PROBLEMS 1

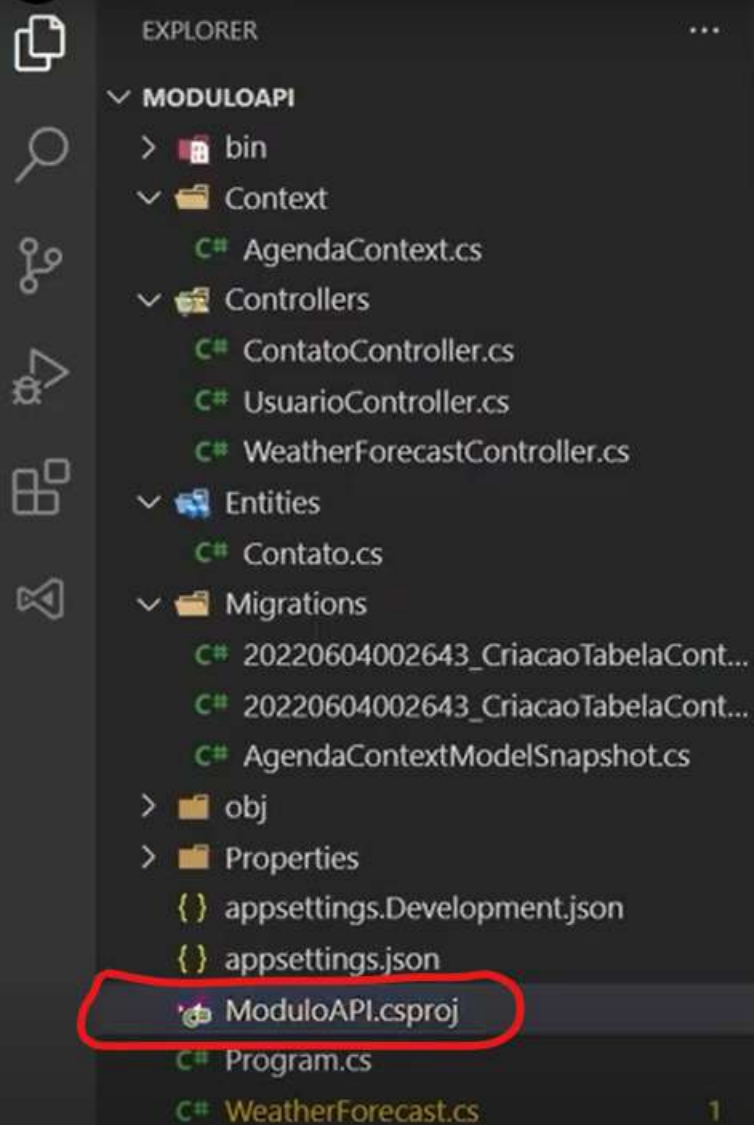
OUTPUT

TERMINAL

DEBUG CONSOLE




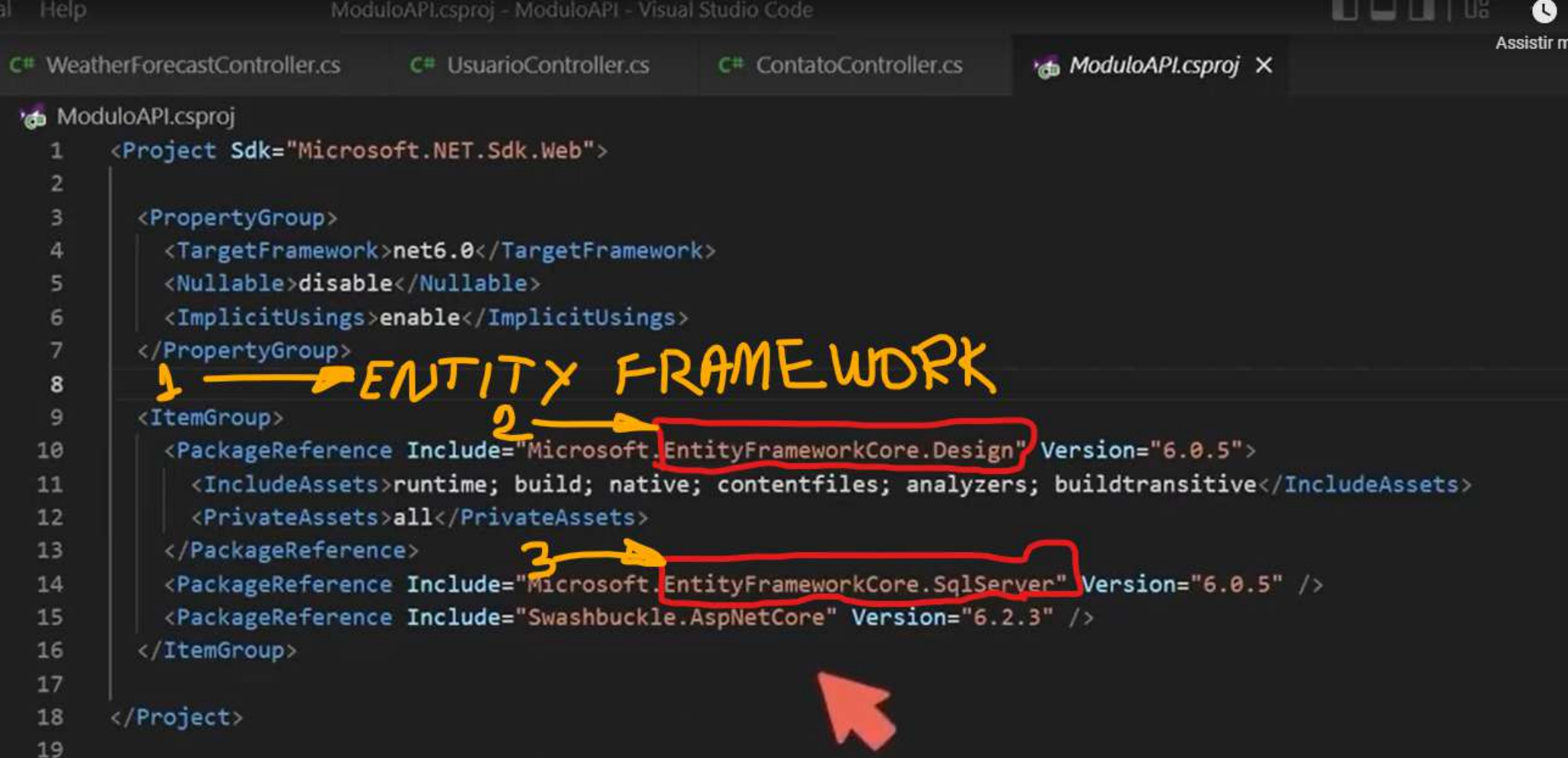
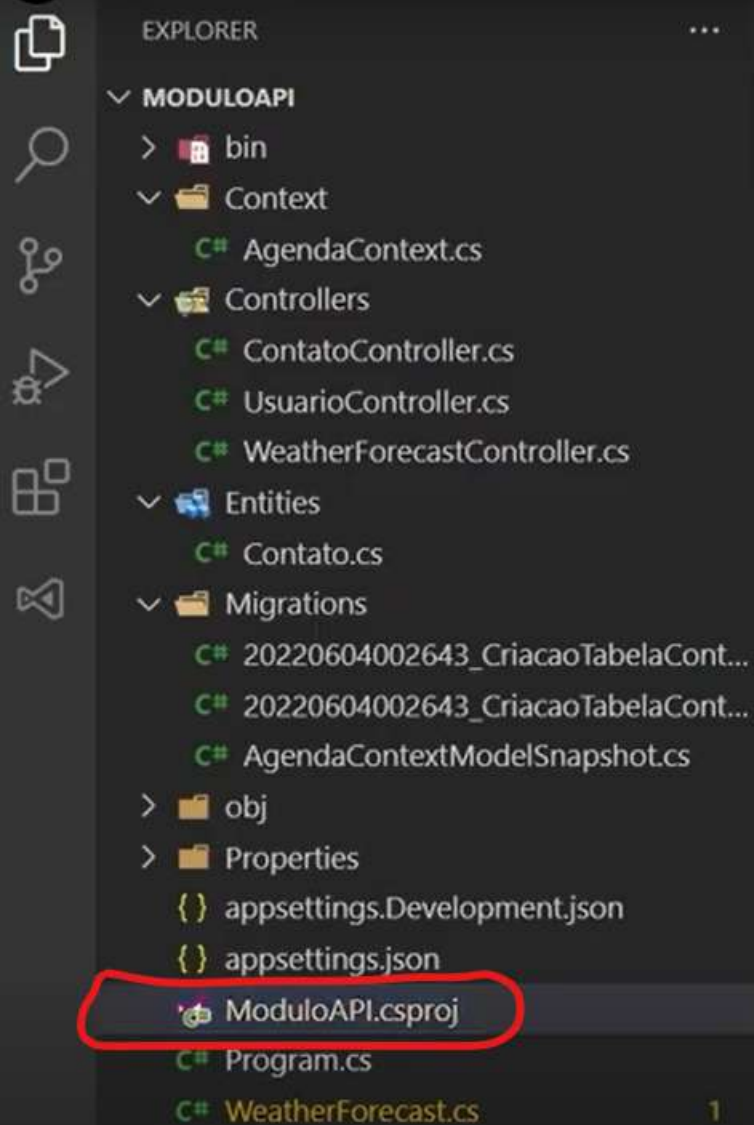
```
PS C:\Projetos\ModuloAPI> dotnet-ef database update
```

ModuloAPI.csproj

```
1 <Project Sdk="Microsoft.NET.Sdk.Web">
2
3   <PropertyGroup>
4     <TargetFramework>net6.0</TargetFramework>
5     <Nullable>disable</Nullable>
6     <ImplicitUsings>enable</ImplicitUsings>
7   </PropertyGroup>
8
9   <ItemGroup>
10    <PackageReference Include="Microsoft.EntityFrameworkCore.Design" Version="6.0.5">
11      <IncludeAssets>runtime; build; native; contentfiles; analyzers; buildtransitive</IncludeAssets>
12      <PrivateAssets>all</PrivateAssets>
13    </PackageReference>
14    <PackageReference Include="Microsoft.EntityFrameworkCore.SqlServer" Version="6.0.5" />
15    <PackageReference Include="Swashbuckle.AspNetCore" Version="6.2.3" />
16  </ItemGroup>
17
18 </Project>
19
```





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Controllers > C# ContatoController.cs > ...

```
6 using ModuloAPI.Context;
7 using ModuloAPI.Entities;
8
9 namespace ModuloAPI.Controllers
10 {
11     [ApiController]
12     [Route("[controller]")]
13     public class ContatoController : ControllerBase
14     {
15         private readonly AgendaContext _context;
16
17         public ContatoController(AgendaContext context)
18         {
19             _context = context;
20         }
21
22         [HttpPost]
23         public IActionResult Create(Contato contato)
24         {
25             _context.Add(contato);
26             _context.SaveChanges();
27             return Ok(contato);
28         }
29
30         [HttpGet("{id}")]
31         public IActionResult ObterPorId(int id)
32         {
33             var contato = _context.Contatos.Find(id);
34         }
35     }
36 }
```


POST

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Controllers > C# ContatoController.cs > ...

```
22 [HttpPost]
23 public IActionResult Create(Contato contato)
24 {
25     _context.Add(contato);
26     _context.SaveChanges();
27     return Ok(contato);
28 }
29
30 [HttpGet("{id}")]
31 public IActionResult ObterPorId(int id)
32 {
33     var contato = _context.Contatos.Find(id);
34
35     if (contato == null)
36         return NotFound();
37
38     return Ok(contato);
39 }
40
41 [HttpGet("ObterPorNome")]
42 public IActionResult ObterPorNome(string nome)
43 {
44     var contatos = _context.Contatos.Where(x => x.Nome.Contains(nome));
45     return Ok(contatos);
46 }
47
48 [HttpPut("{id}")]
49 public IActionResult Atualizar(int id, Contato contato)
```

GET

```
[HttpPost]
public IActionResult Create(Contato contato)
{
    _context.Add(contato);
    _context.SaveChanges();
    return Ok(contato);
}
```

```
[HttpGet("{id}")]
public IActionResult ObterPorId(int id)
{
    var contato = _context.Contatos.Find(id);

    if (contato == null)
        return NotFound();

    return Ok(contato);
}
```

```
[HttpGet("ObterPorNome")]
public IActionResult ObterPorNome(string nome)
{
    var contatos = _context.Contatos.Where(x => x.Nome.Contains(nome));
    return Ok(contatos);
}
```

```
[HttpPut("{id}")]
public IActionResult Atualizar(int id, Contato contato)
{
    var contatoBanco = _context.Contatos.Find(id);

    if (contatoBanco == null)
        return NotFound();
}
```

```
[HttpPut("{id}")]
public IActionResult Atualizar(int id, Contato contato)
{
    var contatoBanco = _context.Contatos.Find(id);

    if (contatoBanco == null)
        return NotFound();

    contatoBanco.Nome = contato.Nome;
    contatoBanco.Telefone = contato.Telefone;
    contatoBanco.Ativo = contato.Ativo;

    _context.Contatos.Update(contatoBanco);
    _context.SaveChanges();

    return Ok(contatoBanco);
}
```

```
[HttpDelete("{id}")]
public IActionResult Deletar(int id)
{
    var contatoBanco = _context.Contatos.Find(id);

    if (contatoBanco == null)
        return NotFound();

    _context.Contatos.Remove(contatoBanco);
    _context.SaveChanges();

    return NoContent();
}
```



```
[HttpPut("{id}")]
```

```
public IActionResult Atualizar(int id, Contato contato)
```

```
{
```

```
    var contatoBanco = _context.Contatos.Find(id);
```

```
    if (contatoBanco == null)
```

```
        return NotFound();
```

```
    contatoBanco.Nome = contato.Nome;
```

```
    contatoBanco.Telefone = contato.Telefone;
```

```
    contatoBanco.Ativo = contato.Ativo;
```

```
    _context.Contatos.Update(contatoBanco);
```

```
    _context.SaveChanges();
```

```
    return Ok(contatoBanco);
```

```
}
```

```
[HttpDelete("{id}")]
```

```
public IActionResult Deletar(int id)
```

```
{
```

```
    var contatoBanco = _context.Contatos.Find(id);
```

```
    if (contatoBanco == null)
```

```
        return NotFound();
```

```
    _context.Contatos.Remove(contatoBanco);
```

```
    _context.SaveChanges();
```

```
    return NoContent();
```

```
}
```

```
dotnet tool install --global dotnet-ef
```

```
dotnet add package Microsoft.EntityFrameworkCore.Design
```

```
dotnet add package Microsoft.EntityFrameworkCore.SqlServer
```

```
dotnet-ef migrations add CriacaoTabelaCurso
```

```
dotnet-ef database update
```