

Get Comfortable with .NET 7 and the CLI

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CLI: Command-line Interface

- `dotnet`
- `dotnet new`
- `dotnet add package`
- `dotnet build`
- `dotnet run`

dotnet -h

```
PS C:\> dotnet -h
```

```
Usage: dotnet [runtime-options] [path-to-application] [arguments]
```

Execute a .NET application.

runtime-options:

--additionalprobingpath <path>	Path containing probing policy and assemblies to probe for.
--additional-deps <path>	Path to additional deps.json file.
--depsfile	Path to <application>.deps.json file.
--fx-version <version>	Version of the installed Shared Framework to use to run the application.
--roll-forward <setting>	Roll forward to framework version (LatestPatch, Minor, LatestMinor, Major, LatestMajor, Disable).
--runtimeconfig	Path to <application>.runtimeconfig.json file.

path-to-application:

The path to an application .dll file to execute.

```
Usage: dotnet [sdk-options] [command] [command-options] [arguments]
```

dotnet new

```
PS C:\> dotnet new
```

The 'dotnet new' command creates a .NET project based on a template.

Common templates are:

Template Name	Short Name	Language	Tags
ASP.NET Core Web App	webapp, razor	[C#]	Web/MVC/Razor Pages
Blazor Server App	blazorserver	[C#]	Web/Blazor
Class Library	classlib	[C#], F#, VB	Common/Library
Console App	console	[C#], F#, VB	Common/Console
Windows Forms App	winforms	[C#], VB	Common/WinForms
WPF Application	wpf	[C#], VB	Common/WPF

An example would be:
dotnet new console

Creating & Running

- New Projects

`dotnet new webapi`

`dotnet new console`

- Build / Run

`dotnet build`

`dotnet run`

Adding Packages / References

- NuGet Packages

```
dotnet add package Newtonsoft.Json
```

- Add Reference

```
dotnet add reference ../folder/my-library.csproj
```

Solutions

- Solution Files

```
dotnet new sln
```

```
dotnet sln add ../folder1/my-console.csproj
```

```
dotnet sln add ../folder2/my-library.csproj
```

ASP.NET Dependency Injection

- Auto-inject dependencies as parameters in Controller constructors

- In Program.cs

```
builder.Services.AddSingleton<IPeopleProvider, CSVPeopleProvider>();
```

- Lifetimes: Singleton, Scoped, Transient



Resources

Code Samples & Resources

<https://github.com/jeremybytes/sdd-2023>



Thank You!

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<https://github.com/jeremybytes/sdd-2023>