# Creating and running a C# program

### Projects

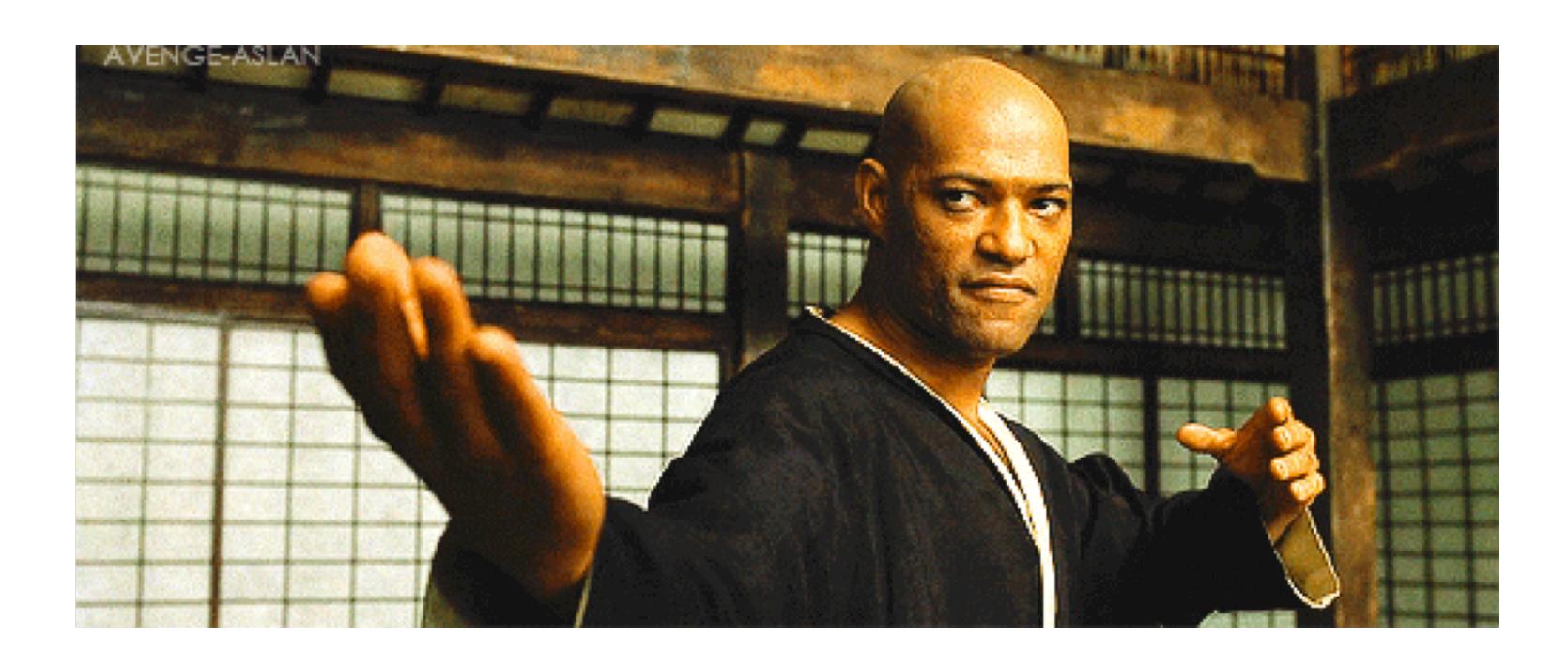
- Before we can write code in C# we must create a project.
- Each project will be in its own directory.
- We should create these projects in an organized parent folder such as sdg in our *home* directory

. NET provides a tool for creating new projects!

### Introducing dotnet new

- This command creates new projects from a **template**
- Includes starter code for us!
- We'll be using it A LOT

#### Let's make our first C# project together!



### Being in the right place at the right time

- In your shell change to the directory where you are going to keep your projects.
- Good options:
  - sdg directory in home folder
  - sdg directory on your desktop
  - sdg directory in your Documents folder
  - Or name the directory code, school or dev; but do keep all your projects together in a folder.

### Example:

cd sdg

## Create our appl

Use the dotnet tool to create our application

dotnet new sdg-console -o OurDotnetApp

### What does this do?

### Where is our project?

We need to change directory into the newly created directory

cd OurDotnetApp

### Open our project in our editor!

Now we can open our project in our editor!

code .

### Let's take a look around



#### dotnet new creates initial files for us

Let's see what files appear in our folder.

├── Program.cs └── OurDotnetApp.csproj

We may also see an **obj** folder but we will ignore that for a moment.

#### Run the code

The template Program.cs prints out the phrase Welcome to C#.

To get dotnet to run our program and see if the phrase appears on our screen we will use the **dotnet run** command.

dotnet run

### Output

We should see the following output on the screen if everything is correct:

Welcome to C#

Now as we change our code and add more functionality we can return to our terminal/Powershell and run dotnet run again to see our new code in action.

### Run our code automatically

We can also use the **dotnet** command to keep track of our code and run it every time we save our code!

dotnet watch run

dotnet watch run
watch : Started
Welcome to C#

watch : Exited

watch: Waiting for a file to change before restarting dotnet...