DELEGATION:

1. ***What is delegation?***

- Delegation is an important concept that will use the “delegate” type to represent references to methods. We can simply understand that delegation is a “method-pointer” with its corresponding “signature”.

2. ***What is “signature”?***

- It is the structure of the delegate method that others should follow if they want to be delegated.

3. ***Think of Delegation this way!***

“Hey, here is a method I would love to use, but I’ll specifically decide which one later”.

4. ***Example:*** You are an owner of a car company and your company is on Boxing Day. All of the cars must be discounted on that day, the discount will be calculated either by 10% off or $5 off. You do not know yet, but certainly there will be two ways. You are holding the Calculator (delegate) to calculate your new sales price for each product, you will decide which discount types you want on each car (which method to call). Here are the steps:

Step 1: Define Delegate:

```
public delegate double DiscountDelegate(double price);
```

=> Signature: “[modifier] double [name] (double price)”

Step 2: Create methods that match the delegate’s signature:

```
public class DiscountCalculator
{
    public double CalculatePercentageDiscount(double price) => price *
0.9;
    public double CalculateAmountDiscount(double price) => price - 5;
}
```

Step 3: Create a delegate and point it to a method:

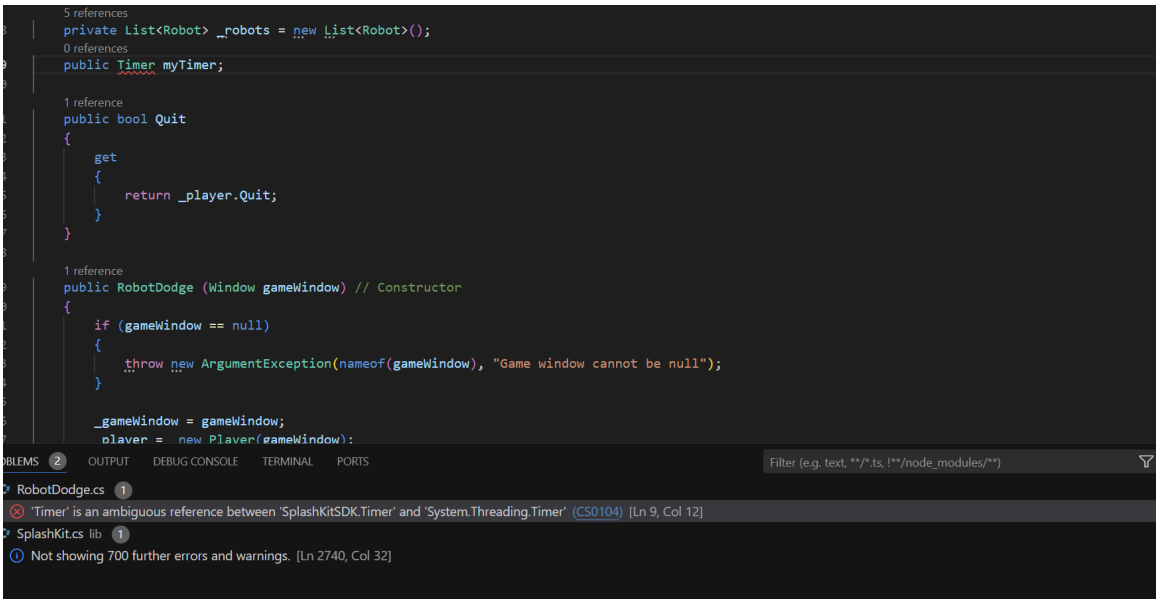
```
public class Program
{
    static void Main()
    {
        DiscountCalculator discountCalculator = new
DiscountCalculator();
```

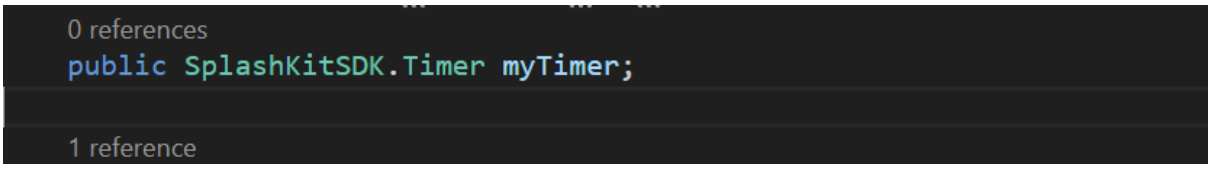
```
        DiscountDelegate discountDelegate =
discountCalculator.CalculatePercentageDiscount;
       Console.WriteLine(discountDelegate(100)); // Output: 90
```

Step 4: Change to the other method if you want the delegate point to:

```
       discountDelegate = discountCalculator.CalculateAmountDiscount;
       Console.WriteLine(discountDelegate(100)); // Output: 95
```

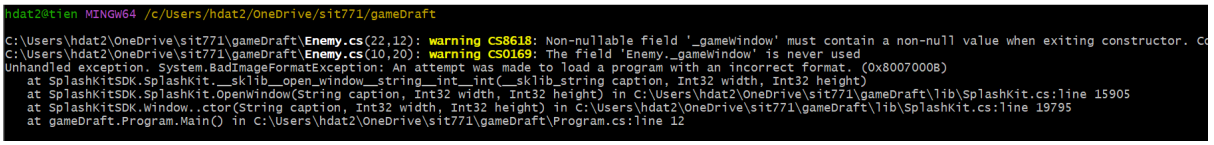
1. An ambiguous reference -> means a type declared exists in 2 namespaces -> specify.





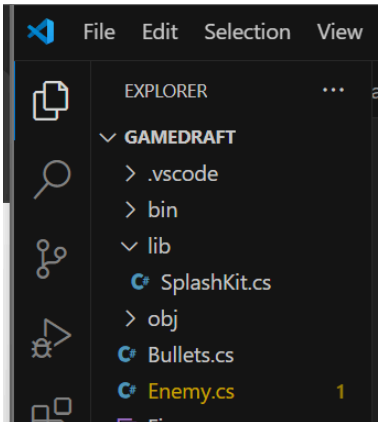
2. Bad Format Exception:

Issue:



Solution:

Go to your project file located at the left bar:



Add the <PlatformTarget> *your computer's architecture* </PlatformTarget>