Events

This lesson will teach you about events in C# and how they're related with delegates!

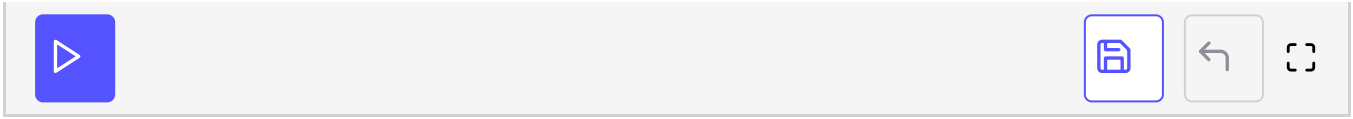
> An event is a special kind of delegate that facilitates **event-driven programming**.

> Events are class members that cannot be called outside of the class regardless of its access specifier.
>
> So, for example, an event declared to be public would allow other classes the use of `+=` and `-=` on the event, but firing the event (i.e. invoking the delegate) is only allowed in the class containing the event.

A simple example:

```
using System;


public class DemoClass
{
  public delegate void MyEventRaiser();
  public event MyEventRaiser DivisibleBy10Event;

  public int isDivisibleBy10(int a, int b)
  {
    int ans = a * b;
    if ((ans % 10 == 0) && (DivisibleBy10Event != null))
    { DivisibleBy10Event(); }
    return ans;
  }
}
class Program
{
  static void Main()
  {
    DemoClass a = new DemoClass();
    a.DivisibleBy10Event += new DemoClass.MyEventRaiser(func);

    int ans = a.isDivisibleBy10(6,9);
    Console.WriteLine(ans);
```

```
    ans = a.isDivisibleBy10(5,2);
    Console.WriteLine(ans);
  }


  static void func()
  {
    Console.WriteLine("Answer is divisible by 10!");
  }
}
```



This code creates a new instance of `DivisibleBy10Event` event which in turn calls the method `func()`.

> Even though the event is declared public, it cannot be directly fired anywhere except in the class containing it.

You've now pretty much grasped the idea of delegates in C#. Let us now have a quick quiz!