



Object Oriented Programming

Week1 Programming Day



Introduction

After a week of rigorous coding, Welcome back!

You have learned all about the **C#** in the previous labs and manuals. Let's move on to the next, new, and interesting concepts.

On this programming day, we will complete a few tasks to gain more hands-on experience with C#

Before start doing the task lets understand some more concepts of **C#**

Example 1

Generate a Random number in C#.

```
0 references
static void Main(string[] args)
{
    Random rnd = new Random();
    int randomNumber = rnd.Next();
    Console.WriteLine(randomNumber);

    Console.ReadKey();
}
```

Here Random is a class you don't know the concept of class yet, so ignore that and just look at the way to generate the random number.

If you want to generate a random number between a range here is code for that



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0 references

```
static void Main(string[] args)
{
    Random rnd = new Random();
    int min = 0;
    int max = 100;
    int randomNumber = rnd.Next(min, max);
    Console.WriteLine(randomNumber);

    Console.ReadKey();
}
```

You can define any number for min and max and the Next function will return you the random number between the given range.

0 references

```
static void Main(string[] args)
{
    Random rnd = new Random();
    double randomDouble = rnd.NextDouble();
    Console.WriteLine(randomDouble);

    Console.ReadKey();
}
```

The above code will generate the random number between 0 and 1



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Example 2

Example to set the foreground and background color in console screen.

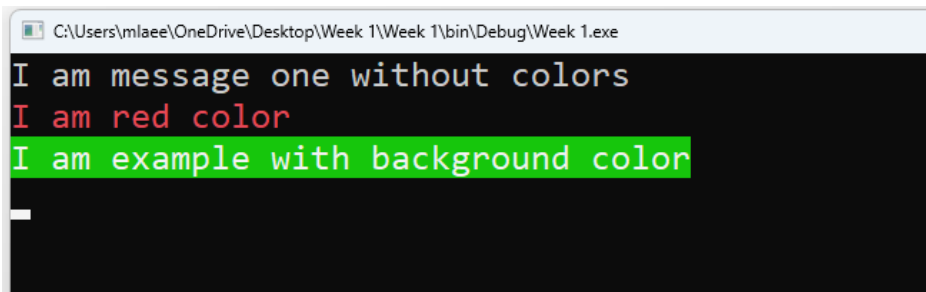
```
0 references
static void Main(string[] args)
{
    Console.WriteLine("I am message one without colors");

    Console.ForegroundColor = ConsoleColor.Red;
    Console.WriteLine("I am red color");
    Console.ForegroundColor = ConsoleColor.White; // reset console default color

    Console.BackgroundColor = ConsoleColor.Green;
    Console.WriteLine("I am example with background color");
    Console.BackgroundColor = ConsoleColor.Black; // reset console color

    Console.ReadKey();
}
```

Output



Class Task

Implement only one feature of your business application, which you developed in a previous semester in C++.

Write a C# code to implement the Create, Read, Update, and Delete features. Use file handling to manage the records.

Takeaway Task

Implement only following feature from your previous game, such as one player, one enemy, and all collision mechanics (e.g., enemy fire, player fire), score management, and health management in C#.

Hint: Use 2D array to store the map of the game and manage everything. Without 2D arrays you cannot do that.