

Morning Katas

Day 4



Print Your Name

Create a new Console Application named
`Day4.Kata1`

In the `Main` method, `WriteLine` your name

Print Your Name

```
public static void Main(string[] args)
{
    Console.WriteLine("Curtis");
}
```

Declare and Use a Variable

Create a new Console Application named
Day4.Kata2

In the **Main** method:

Declare an **int** variable named **day** and set it to 4

WriteLine the message *"Today is day 4"* using
the **+** operator to concatenate the **string** *"Today is
day"* and the **day** variable

Declare and Use a Variable

```
public static void Main(string[] args)
{
    int day = 4;
    Console.WriteLine("Today is day " + day);
}
```

Use an `if-else`

Create a new Console Application named
`Day4.Kata3`

In the `Main` method:

Declare a `new` instance of `Random`

Use the `Next(10)` method to get the next `int`

If that value is less than 5, `WriteLine` *"Less than 5"*

Otherwise, `WriteLine` *"Greater than or equal to 5"*

Use an if-else

```
public static void Main(string[] args)
{
    Random r = new Random();
    if (r.Next(10) < 5)
    {
        Console.WriteLine("Less than 5");
    }
    else
    {
        Console.WriteLine("Greater than or equal to 5");
    }
}
```

Use an array

Create a new Console Application named
Day4.Kata4

In the **Main** method:

Declare and initialize an array of **strings** that
contain the names of the days of the week
WriteLine the fourth day of the week

Use an array

```
public static void Main(string[] args)
{
    string[] daysOfTheWeek = new string[]
    {
        "Sunday", "Monday", "Tuesday", "Wednesday",
        "Thursday", "Friday", "Saturday"
    };
    Console.WriteLine(daysOfTheWeek[4]);
}
```

Use the **for** loop

Create a new Console Application named
Day4.Kata5

In the **Main** method:

Declare and initialize an array of three random **ints**
less than 100

Declare a variable named **total**

Use a **for** loop to loop over the array and sum the
total

WriteLine the total

Use the for loop

```
public static void Main(string[] args)
{
    Random r = new Random();
    int[] nums = new int[]
    {
        r.Next(100), r.Next(100), r.Next(100)
    };
    int total = 0;
    for (int i = 0; i < 3; i = i + 1)
    {
        total = total + nums[i];
    }
    Console.WriteLine(total);
}
```

Use the foreach loop

```
public static void Main(string[] args)
{
    Random r = new Random();
    int[] nums = new int[]
    {
        r.Next(100), r.Next(100), r.Next(100)
    };
    int total = 0;
    foreach (int num in nums)
    {
        total = total + num;
    }
    Console.WriteLine(total);
}
```

Handle User Input

Create a new Console Application named
Day4.Kata6

In the **Main** method:

Write a message that asks the user for their name

Get their name from the input

Write the message *“Hello, «name»!”*

Handle User Input

```
public static void Main(string[] args)
{
    Console.WriteLine("What is your name?");
    string name = Console.ReadLine();
    Console.WriteLine("Hello, " + name);
}
```

Declare a Class

Create a new Console Application named
Day4.Kata7

Create a class named **BankAccount** with a constructor that sets the balance to a random number between 0 and 10000. Have a method that returns that balance.

In the **Main** method:

Create an instance of **BankAccount** using **new**.
Print the balance of the bank account.

```
// In BankAccount.cs
public class BankAccount
{
    private decimal balance;
    public BankAccount()
    {
        Random r = new Random();
        balance = r.Next(10001);
    }
    public decimal GetBalance()
    {
        return balance;
    }
}
```

```
// In Program.cs
public static void Main(string[] args)
{
    BankAccount account = new BankAccount();
    decimal balance = account.GetBalance();
    Console.WriteLine("Your balance is: " + balance);
}
```