

INTRODUCTION TO PROGRAMMING USING C#

Lecture 4: Functions

CONTENTS:

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- **Define a new function.**
- **Functions naming roles.**
- **Calling a function.**
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WHAT'S A FUNCTION

A function is some lines code that called frequently

DEFINE A NEW FUNCTION

```
void FunctionName()  
{  
    DoSomething();  
}
```

FUNCTIONS NAMING ROLES

The same as variable naming roles.

CALLING A FUNCTION

```
FunctionName();
```

FUNCTIONS THAT RETURN VALUE

```
int Sum(int x, int y)
{
    return x + y;
}
```

```
total = Sum(5, 6);
```

FUNCTIONS THAT TAKES VALUES AS INPUTS

```
void SayHi(string name)
{
    Console.WriteLine("Hi " + name);
}
```

```
SayHi("Adam");
```


NAMED ARGUMENTS

```
SayHi(name: "Adam");
```

OPTIONAL ARGUMENTS

```
void SayHi(string name = "Guest")  
{  
    Console.WriteLine("Hi " + name);  
}
```

```
SayHi(name: "Adam");
```

```
SayHi();
```

ACCESS MODIFIERS

Private is the default access modifier for functions.

```
void FunctionName() //private
{
    DoSomething();
}

public void SayHi(string name = "Guest") //public
{
    Console.WriteLine("Hi " + name);
}
```

NEXT

- **Class and interfaces.**