**Questions for this assignment**

What is a method in C#?

What are the different types of methods in C#?

What is the syntax for defining a method in C#?

What is a ‘return type’ in a method?

Can a method have multiple return statements?

What is a local variable in C#?

What is the scope of a local variable in C#?

Can two local variables have the same name in different methods?

What is a parameter in C#?

What is the syntax for defining parameters in a method?

Can a method have no parameters?

What is a 'ref return' in C#?

What is a method in C#?

A method is a block of code that performs a specific task. It is used to encapsulate functionality so that it can be reused multiple times throughout a program.

What are the different types of methods in C#?

There are two types of methods in C#: instance methods and static methods. Instance methods are associated with an instance of a class, while static methods belong to the class itself.

What is the syntax for defining a method in C#?

The syntax for defining a method in C# is:

[access\_modifier] [return\_type] method\_name(parameters)

{

// Method body

}

What is a ‘return type’ in a method?

A return type is the data type of the value that a method returns after performing its operation. It can be a primitive data type or a complex object.

Can a method have multiple return statements?

Yes, a method can have multiple return statements. However, only one of them will be executed based on the condition in the method body.

What is a local variable in C#?

A local variable is a variable that is declared inside a method or a block of code. It has a limited scope and is only accessible within the method or block where it is declared.

What is the scope of a local variable in C#?

The scope of a local variable is limited to the method or block where it is declared. It cannot be accessed outside of that scope.

Can two local variables have the same name in different methods?

Yes, two local variables can have the same name in different methods since they have different scopes and are not accessible outside of their respective methods.

What is a parameter in C#?

A parameter is a variable that is used to pass data to a method when it is called. It is declared in the method signature and can have a specific data type.

What is the syntax for defining parameters in a method?

The syntax for defining parameters in a method is:

[access\_modifier] [return\_type] [method\_name]([data\_type] [parameter\_name], [data\_type] [parameter\_name], ...)

{

// Method body

}

Can a method have no parameters?

Yes, a method can have no parameters. In that case, the method signature will only include the access modifier, return type and method name.

What is a 'ref return' in C#?

A ref return is a feature in C# that allows a method to return a reference to a variable rather than its value. This is useful for cases where the variable is large or complex and copying it would be inefficient.