Технически университет – Габрово

**Курсова работа**

ОБЕКТНО ОРИЕНТИРАНО ПРОГРАМИРАНЕ

ООП

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1. **Теоретична част**

An abstract class can’t be instantiated. It’s the base class for other classes that want to inherit from it. To make a class abstract, you need to add the keyword “abstract” in front of the keyword “class”.

e.g., Member\_access\_modifier **abstract** class Class\_name {}

Abstract classes can have abstract methods and non-abstract methods. Abstract methods don’t have a body. “The body is provided by the derived class.” To create an abstract method, you need to add the keyword “abstract” in front of the return value type (void, int, etc.).

e.g., Member\_access\_modifier **abstract** return\_value\_type MethodName ()

An interface is an abstract class with abstract methods. This means every method doesn’t have a body. Also, an interface can’t be instantiated. The point of an interface is to achieve a multiple inheritance that classes can’t achieve. Interface members cannot have access modifiers, all members are "public". To create an interface, you need to add the keyword “interface” before the name of the interface. The name of the interface should start with a capital “i”, because of the .NET convention used and advocated by Microsoft.

e.g., **interface** interface\_name {}

“Arrays are used to store multiple values in a single variable, instead of declaring separate variables for each value.“ An array of objects is declared in the same way as a normal array, but the type is the name of the class.

e.g., Class\_name **Array\_name**[] = new Class\_name[size\_array];

1. **Използвана литература**

<https://www.w3schools.com/cs/cs_abstract.php>

<https://www.geeksforgeeks.org/c-sharp-abstract-classes/>

<https://dotnettutorials.net/lesson/abstract-class-abstract-methods-csharp>

<https://www.javatpoint.com/c-sharp-interface>  
<https://softwareengineering.stackexchange.com/questions/117348/should-interface-names-begin-with-an-i-prefix>

<https://www.w3schools.com/cs/cs_arrays.php>

<https://www.includehelp.com/dot-net/array-of-objects-in-c-sharp.aspx>