



Course : Object oriented programming
Tutorial N°1 : Introduction

Exercise N1:

- 1- The company that popularized personal computing was _____.
- 2- The computer that made personal computing legitimate in businesses and industry was the _____.
- 3- Computers process data through a set of instructions called _____.
- 4- The main logical units of a computer are the _____, _____, _____, and the _____.
- 5- The three main types of programming languages are _____, _____, and _____.
- 6- The program that converts a program written in a high-level language into a machine language program is called a _____.

Exercise N2:

- 1- The JDK command used to run a JAVA program is: _____.
- 2- The JDK command used to compile a JAVA program is: _____.
- 3- A JAVA program must end with the extension: _____.
- 4- When a Java program is compiled, the file produced by the compiler ends with the extension: _____.
- 5- The file produced by the Java compiler contains _____, which will be executed by the Java Virtual Machine.

Exercise N3:

You are probably wearing on your wrist one of the most common types of objects in the world: a watch. Discuss how each of the following terms and concepts applies to the notion of a watch: object, attributes, behaviors, class, inheritance (consider, for example, an alarm clock), abstraction, modeling, messages, encapsulation, interface, and information protection.

Exercise N4:

Study the characteristics and behavior of the following objects: your identity card, your teacher, your email, your antivirus, etc.

Exercise N5:

- 1- The size, shape, color, and weight of an object are considered _____ of the object's class.

2- Objects have the property of _____: even though objects may know how to communicate with each other, they are generally not allowed to know how other objects are implemented.

3- _____ to an object means asking the object to execute or invoke one of its methods.

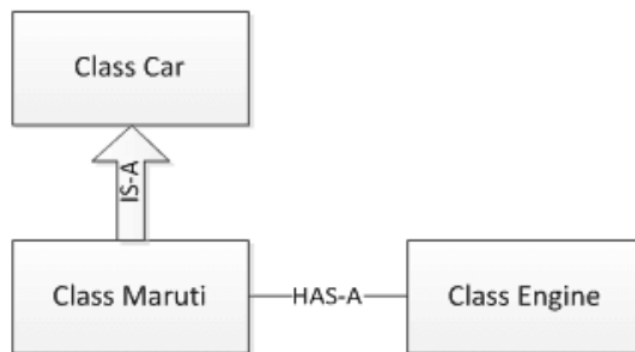
4- _____ is a model or prototype from which objects are created.

5- _____ is a class that contains only constants and unimplemented methods.

6- With _____, new classes of objects are derived by using the characteristics of existing classes and then adding unique features.

7- The _____ attributes of a superclass can be accessed by that class and all its subclasses.

8- What is the difference between an IS-A and a HAS-A relationship? Explain using the following



example:

9- If a class contains an abstract method, then it is an _____ class.

10- Classes from which you can instantiate an object are called _____ classes.

11- If an abstract class contains an abstract method, then a subclass of that class must provide an _____ of that method.

12- Methods that are not interface methods and do not provide an implementation are called _____

Exercise N6:

Discuss the difference between an interface and an abstract class