Assignment - 26

Q1 what is the difference between inheritance in c++ & Java?

1. In Java, classes inherit from object class directly (all) or indirectly.

2. In Java, members of grandparent class are not directly accessible.

3. The members of protected member access specifier is meaning somewhat different in Java.

4. Java uses extends keyword for Inheritance.

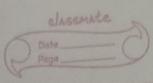5. In Java, methods are by default virtual. In c++ explicitly use virtual keyword.

Q2 what are the types of Inheritance in Java?

Java has following Inheritance:

1. Single Inheritance
2. multilevel Inheritance
3. Hierarchal Inheritance
4. multiple Inheritance
5. Hybrid Inheritance

3. Explain the concept of this keyword in Java?

* This keyword refers to the current object in a method or constructor.

* This keyword can be used to invoked:
  1. class constructor.
  2. current method.
  3. Return current class object
  4. Pass an argument in constructor call.
  5. Pass an argument in method call.

4. Explain the concept of super keyword in Java?

○ Super keyword refers to parent class in Java. object

* An understanding of inheritance & polymorphism is needed in order to understand the Java super keyword.

○ we use super keyword work with variables, methods, with constructors.

5. How we can call one constructor from the another constructor of same class?

• To call one constructor from another constructor of same class:

1. By using this() keyword
2. By using super() keyword

6. How we call constructor of base class from the constructor of derived class?

• By using super keyword.

example: class Base {
        Base (int value) {
           SOP(" Base constructor with value : " + value);
        }
    }

class Derived extends Base {
    Derived (int value) {
        super (value) ; // Base class call
        sop (" Derived constructor);
    }
}

public class Main {
    public static void main [string args[]) {
        Derived dobj = new Derived (10);
    }
}

output: Base constructor with value : 10
           Derived constructor.

7. Explain the scenario in which we have to call base class constructor of base class from the derived class explicitly.

   ' When we want to take resources from base class then we can use super keyword to call constructor from the base class.

8. Write java program which accepts one word from user through command line & display length of word. [str.length]

9. Write a program which accepts one word / string from user & display largest word length from that.

10. What is the use of classpath for java program?

    • classpath is a parameter in java virtual machine or the java compiler that specifies the location of user defined classes & packages.

    • It is used to provide the root of any package hierarchy to java compiler.