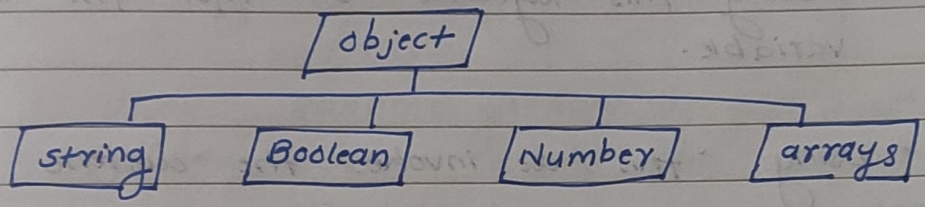
Assignment - 27

Q1. what is meant by object class?

- The object class is the parent class of all the classes in java by default.



- It is the topmost class in java.
- Every user defined or inbuilt class is implicitely inherited from the object class.
- java.lang package is automatically imported object class in every java application.
- Their are multiple methods in object class which can be used in java class.

Q2. Explain mark & sweap algorithm of garbage collection?

- any garbage collection algorithm must perform 2 basic operations. one, it should be

able to detect all the unreachable objects & secondary, it must reclaim the heap space used by garbage objects & make space available again to program.

Q.3. What are the types of methods in which we can use this keyword?

- using 'this' keyword we refer the class variable.
- Using 'this' we invoke the current class constructor, and return class constructor.
- Using 'this' keyword we can invoke current class method.

Q.4. Explain the concept of finalize ~~keyword~~ () method?

- The finalize method is similar to destructor in c++.
- When garbage collector collects the memory of object then it will internally calls the finalize.
- The garbage collector thread scans whole memory periodically but, we can explicitly call the garbage collector using.

System.gc();

Q.5 How to call garbage collector explicitly in Java ?

- We can call garbage collector explicitly, but JVM decides whether to process the call or not. Ideally.

- We can use the System.gc() to call garbage collector explicitly.

- Using Runtime.getRuntime().gc() method, runtime class allows the application to interface with the JVM in which application is running. hence by using its gc() we can request JVM to run garbage collector.

Q.6 What is difference between finalize() method Java and destructor in c++ ?

- Differerence :

1. Destructors are implicitly defined and called by programmar or compiler, while finalizers are implicitly defined and called by GC (garbage collector).

2. Destructor are deterministic & predictable while finalizers are non-deterministic & unpredictable. destructor can be customized & inherited whil finalize can't.

Q.7 How to display the hash code of any object in Java.

- Every object in Java is identified as a by a unique number which is called hash code.
- Generally hash code is a hexadecimal value which indicates the unique number assigned to the perticular object.
- By using the hashcode() method we can get the hexadecimal value of object.

i.e `obj.hashcode();`

Q.8 What is the alternative for copy constructor in Java?

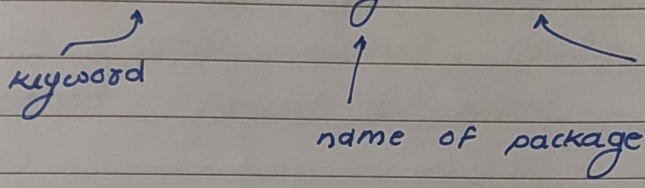
- clone method is like copy constructor of c++
- Inside userdefined class we have to implement our own clone method which will internally calls the clone method of object class.

i.e `clone() // clone method`

Q.9. what is the use of import statement in java application ?

- import statement in java is helpful to take a class or all classes visible for a program specified under the package with the help of a single statement.

eg. import packageName.*;



Q.10 what is difference between static block & constructor ?

- Java static block will be called when JVM loads the class into memory means it will be called only once. but constructor will be called everytime when you create an object.

- Static block in java is used for changing the default value of static variables, initializing static variable of class, write a set codes that you want to execute during class loading in memory.