Interview Questions

Q1. What is a Constructor in Java?

Constructor is just like a method in Java that is used to initialize the state of an object and will be invoked during the time of object creation.

Q2. What are the Rules for defining a constructor?

1. The constructor name should be the same as the class name
2. It cannot contain any return type
3. It can have all Access Modifiers are allowed (private, public, protected, default)
4. It Cannot have any Non Access Modifiers (final, static, abstract, synchronized)
5. No return statement is allowed
6. It can take any number of parameters

Q3. What is a No-arg constructor?

A constructor **without arguments** is called a no-arg constructor. In Java Default constructor is a no-arg constructor.

```
class Demo
{
   public Demo()
   {
      //no-arg constructor
   }
}
```

Q4. Can we have both Default Constructor and Parameterized Constructor in the same class?

Yes, we have both Default Constructor and Parameterized Constructor in the same class.

Q5. What happens if you don't define a constructor in your class. Can we still create the object of that class?

Yes, we can create the object of that class because the compiler defines an empty, default constructor inside the class automatically which remains hidden to the programmer/user/outside world.

Q6. Will the compiler create the Default Constructor when we already have a Constructor defined in the class?

No, the compiler will not create the Default Constructor when we already have a Constructor defined.

Q7. What is the use of Private Constructors in Java?

When we use the **private** keyword for a constructor then an object for the class can only be created **internally** within the class, **no outside class** can create an object for this class. Using this we can **restrict** the caller from creating objects.

```
class ExampleOfPrivateConstructor
{
   /**
    * Private Constructor for preventing object creation
   from the  outside class
   **/
   private ExampleOfPrivateConstructor (){ }

   public void display()
   {
      System.out.println("disp() method called");
   }
}
public class Sample
{
   public static void main(String args[])
   {
      //Creating the object for the Private Constructor class
      ExampleOfPrivateConstructor pc = new ExampleOfPrivateConstructor ();

      pc.display();
   }
}
```

When we will try to run the above code we will be getting the below exception.
Exception in thread "main" java.lang.Error: Unresolved compilation problem:

The constructor ExampleOfPrivateConstructor () is not visible

at Sample.main(Sample.java:21)

Q8. What are the differences between the constructor and the method?

	Constructor	Method
Name	Constructor's name must be same as the name of the class.	Method's name can be anything.
Return Type	Constructor doesn't have a return type.	Method must have a return type.
Call	Constructor is invoked implicitly by the system.	Method is invoked by the programmer.
Main Job	Constructor can be used to initialize an object.	Method consists of Java code to be executed.
Overload	Constructor can be Overload.	Method also can be overload.

Q9. Does the Constructor create the object?

The new operator in Java creates objects. Constructor is the later step in object creation. The constructor's job is to initialize the members after the object has reserved memory for itself.