

27th Feb' 23 Interface Assignment - 19

1. What is an interface in Java?

Ans: An interface in Java is a mechanism that is used to achieve complete abstraction. It is basically a kind of class that contains only constants and abstract methods.

2. Which modifiers are allowed for methods in an Interface? Explain with an example

Ans: Only abstract and public modifiers are allowed for methods in interfaces.

3. What is the use of interfaces in Java?

Ans: There are many reasons to use interfaces in java. They are as follows:

- a. An interface is used to achieve full abstraction.
- b. Using interfaces is the best way to expose our project's API to some other project.
- c. Programmers use interfaces to customize features of software differently for different objects.
- d. By using interfaces, we can achieve the functionality of multiple inheritance.

4. What is the difference between abstract class and interface in Java?

Ans: Abstract class

- 1) Abstract classes can have Abstract and non-Abstract methods.
- 2) Abstract class doesn't support multiple inheritance.
- 3) Abstract class can have final, non-final, static and non-static variables.
- 4) Abstract class can provide the implementation of interface.
- 5) The Abstract keyword is used to declare Abstract class.
- 6) An Abstract class can extend another Java class and implement multiple java interfaces.
- 7) An Abstract class can be extended using the keyword "extends".
- 8) A java Abstract class can have class members like private, protected, etc

9) Example:

27th Feb' 23 Interface Assignment - 19

```
public abstract class Shape{  
    public abstract void draw();  
}
```

Interface:

- 1) Interfaces can have only abstract methods. Since Java 8, it can have default and static methods also.
- 2) Interface supports multiple inheritance.
- 3) Interface has only static and final variables.
- 4) Interface can't provide the implementation of abstract class.
- 5) The interface keyword is used to declare the interface.
- 6) An interface can extend another Java interface only.
- 7) An interface can be implemented using the keyword "implements".
- 8) Members of a Java interface are public by default.

9) Example:

```
public interface Drawable{  
    void draw();  
}
```