

ASSIGNMENT- (INTERFACE)

Q. 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.

Q. 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.

Q. What is the use of interface 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 customise features of software differently for different objects.
- d. By using interface, we can achieve the functionality of multiple inheritance.

Q. What is the Difference between abstract class and interface in java?

Ans- Abstract class:-

- Abstract class can have abstract and non-abstract methods.
- Abstract class doesn't support multiple inheritance.
- Abstract class can have final, non-final, static and non-static variables.
- Abstract class can provide the implementation of interface.
- The abstract keyword is used to declare abstract class.
- An abstract class can extend another Java class and implement multiple java interfaces.
- An abstract class can be extended using the keyword "extends".
- A java abstract class can have class members like private, protected, etc.
- Example:

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

Interface:-

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

- Example:-

```
Public interface Drawable{  
Void draw();  
}
```