#### Q4>What is an interface in java?

**Ans==** in java,an interface is a reference type that defines a contract for classes to adhere to.it serves as a blueprint for classes,specifying a set of abstract methods that the implementing classes must provide.An interface can also include constant fields,default methods,and static methods.

## Q5What is the use of interface in java?

**Ans** == In java,interfaces serve several important purposes,and they play a vital role in the object oriented programing paradigm.some of the key uses of interfaces in java are:

**1>Abstraction:**interfaces allow you to define a contract or a set of abstract methods without providing any implementation details.

**2>Multiple inheritance:** Java does not support multiple inheritance with classes. however, a class can implement multiple interfaces.

**3>Polymorphism:**interface facilitate polymorphism,which means you can use different classes that implement the same interface interchangeably.

**4>Code reusability:**By defining common interfaces, you can establish a contract that multiple classes can follow.this promotes code reusability since different classes can implement the same interface and provide their unique implementations of the methods.

# Q6>What is the lambda expression of java 8?

**Ans** == In java 8,lambda expressions were introduce as a new feature to provide a concise way of representing anonymous functions,also known as functional interface interfaces. A lambda expression allows you to treat functionality as a method argument,thus enabling functional programming in java.

#### Q7>Can you pass lambda expression to a method?when?

Ans == Yes, you can pass lambda expressions as arguments to methods in java.lambda expressions can be treated as instances of functional interfaces, which are interfaces that have exactly one abstract method. you can pass a lambda expression as an argument to any method that expects a functional interface as a parameter.

## Q8>What is the functional interface in java 8?

**Ans** == In java 8,a functional interface is an interface that has exactly one abstract method.functional interfaces are also known as single abstract method (SAM) interfaces.while functional interfaces can have multiple default or static methods,they must have only one abstract method to be considered as functional interfaces.

### Q9>What is the benefits of lambda expression in java 8?

**Ans** == Lambda expressions in java 8 bring several benefits to the language and its ecosystem. Some of the key advantages of using lambda expressions are:

- 1. Conciseness and readability.
- 2. Functional programming.
- 3.Flexibility.
- 4. Parallel Processing.
- 5.Enhanced APIs.

Q10>Is it mandatory for a lambda expression to have parameters?

Ans == No,it is not mandatory for a lambda expression to have parameters.lambda expressions in java can have zero or more parameters,depending on the context in which they are used.

If a lambda expression does not require any input parameters, you can use an empty parameter list '()' to indicates that it takes no arguments.