

1. **What is the lambda expression of Java 8?**

A lambda expression in Java 8 is a concise way to represent an anonymous function (a function without a name). It provides a clear and concise way to implement single-method interfaces (functional interfaces) using an expression. **The syntax is:**

(parameters) -> expression

Or

(parameters) -> { statements; }

2. **Can you pass lambda expressions to a method? When?**

Yes, we can pass lambda expressions to a method when the method parameter is a functional interface.:

3. **What is the functional interface in Java 8?**

A functional interface in Java 8 is an interface that contains exactly one abstract method. It can have multiple default or static methods. Functional interfaces are used as the types for lambda expressions.

The `@FunctionalInterface` annotation is used to indicate a functional interface.

Example:

```
@FunctionalInterface
interface MyFunctionalInterface {
    void myMethod();
}
```

4. **Why do we use lambda expressions in Java?**

Lambda expressions are used in Java to:

- Enable functional programming.
- Provide a clear and concise way to represent one-method interfaces.
- Reduce boilerplate code.
- Improve readability and maintainability of code.
- Facilitate parallel processing and event handling.

5. **Is it mandatory for a lambda expression to have parameters?**

No, it is not mandatory for a lambda expression to have parameters. A lambda expression can have zero or more parameters. For example:

```
// No parameters
```

```
() -> System.out.println("No parameters");
```

```
// One parameter
```

```
(x) -> System.out.println(x);
```

```
// Multiple parameters
```

```
(x, y) -> System.out.println(x + y);
```