

Lambda Expression Assignment Solutions

1. What is the lambda expression of Java 8?

Ans: As its name suggests it's an expression which allows us to write more succinct code in Java 8.

For example $(a, b) \rightarrow a + b$ is a lambda expression (look for that arrow \rightarrow).

Which is equal to following code:

```
public int value(int a, int b){  
    return a + b;  
}
```

It's also called an anonymous function because you are essentially writing the code one write in function but without name.

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

Ans: Yes, we can pass a lambda expression to a method provided it is expecting a functional interface.

For example, if a method is accepting a Runnable, Comparable or Comparator then one can pass a lambda expression to it because all these are functional interfaces in Java 8.

3. What is the functional interface in Java 8?

Ans: A functional interface in Java 8 is an interface with a single abstract method. For example, Comparator which has just one abstract method called `compare()` or Runnable which has just one abstract method called `run()`. There are many more general purpose functional interfaces introduced in JDK on `java.util.function` package. They are also annotated with `@FunctionalInterface` but that's optional.

4. What is the benefit of lambda expressions in Java 8?

Ans: The main benefit of lambda expression in Java 8 is that now it's easier to pass a code block to a method.

Earlier, the only way to do this was wrapping the code inside an Anonymous class, which requires a lot of boilerplate code.

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

Ans: No, it's not mandatory for a lambda expression to have parameters, you can define a lambda expression without parameters as shown below:

```
() -> System.out.println("lambdas without parameter");
```

We can pass this code to any method which accepts a functional interface.