

1. Lambda Expressions

```
// Before Java 8
List<String> names = Arrays.asList("Alice", "Bob", "Charlie");

for (String name : names) {
    System.out.println(name);
}

// Java 8 with Lambda
List<String> names = Arrays.asList("Alice", "Bob", "Charlie");
names.forEach(name -> System.out.println(name));
```

2. Stream API

```
List<Integer> numbers = Arrays.asList(1, 2, 3, 4, 5);

int sum = numbers.stream()
    .filter(n -> n % 2 == 0)
    .mapToInt(Integer::intValue)
    .sum();

System.out.println("Sum of even numbers: " + sum);
```

3. Functional Interfaces

```
@FunctionalInterface
interface Calculator {
    int operate(int a, int b);
}

public static void main(String[] args) {
    Calculator add = (a, b) -> a + b;
    Calculator subtract = (a, b) -> a - b;

    System.out.println("Addition: " + add.operate(5, 3));
    System.out.println("Subtraction: " + subtract.operate(5, 3));
}
```

4. Default Methods

```
interface Greeting {  
    void sayHello();  
  
    default void sayGoodbye() {  
        System.out.println("Goodbye!");  
    }  
}  
  
class EnglishGreeting implements Greeting {  
    public void sayHello() {  
        System.out.println("Hello!");  
    }  
}  
  
public static void main(String[] args) {  
    Greeting english = new EnglishGreeting();  
    english.sayHello();  
    english.sayGoodbye();  
}
```

5. Method References

```
List<String> names = Arrays.asList("Alice", "Bob", "Charlie");  
  
names.forEach(System.out::println);
```

6. Date and Time API

```
LocalDate today = LocalDate.now();  
System.out.println("Today's date: " + today);
```