



**`System.out.printf()` methods. Here are the differences:**

- **`System.out.print()`**: Prints the text but does not move to the next line.
- **`System.out.println()`**: Prints the text and moves to the next line.
- **`System.out.printf()`**: Formats the text before printing it, similar to the `printf` function in C.

**### 10 Examples of Printing in Java:**

1. **Printing a simple string using `System.out.println()`**:

```
```java
```

```
System.out.println("Hello, World!");
```

```
```
```

Output:

```
```
```

Hello, World!

```
```
```

2. **Printing multiple values using `System.out.print()`**:

```
```java
```

```
System.out.print("Java ");
```

```
System.out.print("is ");
```

```
System.out.print("fun!");
```

```
```
```

Output (all on one line):

```
```
```

Java is fun!

```
```
```

3. **\*\*Printing variables using `System.out.println()`\*\*:**

```
```java
int age = 25;

String name = "Alice";

System.out.println("Name: " + name + ", Age: " + age);
```
```

Output:

```
```
Name: Alice, Age: 25
```
```

4. **\*\*Printing formatted output using `System.out.printf()`\*\*:**

```
```java
double price = 19.99;

System.out.printf("The price is $%.2f", price);
```
```

Output:

```
```
The price is $19.99
```
```

5. **\*\*Printing multiple lines using `System.out.println()`\*\*:**

```
```java
System.out.println("First line");

System.out.println("Second line");
```
```

Output:

```
```
First line

Second line
```
```

6. **\*\*Printing a character using `System.out.println()`\*\*:**

```
```java
char grade = 'A';
System.out.println("Grade: " + grade);
```
```

Output:

```
```
Grade: A
```
```

7. **\*\*Printing boolean values\*\*:**

```
```java
boolean isJavaFun = true;
System.out.println("Is Java fun? " + isJavaFun);
```
```

Output:

```
```
Is Java fun? true
```
```

8. **\*\*Printing arrays\*\*:**

```
```java
int[] numbers = {1, 2, 3, 4, 5};
for (int number : numbers) {
    System.out.print(number + " ");
}
```
```

Output:

```
```
1 2 3 4 5
```
```

9. **\*\*Using escape characters\*\***:

```
```java
System.out.println("Line1\nLine2\tTabbed");
System.out.println("Quotes: \"Hello!\"");
```
```

Output:

```
```
Line1
Line2  Tabbed
Quotes: "Hello!"
```
```

10. **\*\*Printing formatted integers and strings using `System.out.printf()`\*\***:

```
```java
String product = "Laptop";
int quantity = 3;
System.out.printf("You bought %d %s(s)\n", quantity, product);
```
```

Output:

```
```
You bought 3 Laptop(s)
```
```

**### Summary of Methods:**

- **\*\*`System.out.print()`\*\***: Prints without a newline.
- **\*\*`System.out.println()`\*\***: Prints and moves to the next line.
- **\*\*`System.out.printf()`\*\***: Prints formatted strings.

These methods allow for flexible and powerful printing in Java.