Naming Convention in JAVA

Java Naming Convention is a set of guidelines that help developers decide what to name their identifiers (like classes, packages, variables, constants, methods, etc.). These guidelines are recommended by communities such as Sun Microsystems and Netscape, but they are not strictly enforced rules—hence the term "convention."

By following these conventions, you make your code more readable and understandable for both yourself and other programmers. This saves time because it's easier to understand what the code does at a glance.

Different types of identifiers in Java:

1. Class

- **Naming Rule:** Start with an uppercase letter and use a noun.
- **Examples:** `Employee`, `System`, `Thread`
- **Example Code:**

```
public class Employee {
    // code snippet
}
```

2. Interface

- **Naming Rule:** Start with an uppercase letter and use an adjective.
- **Examples:** `Runnable`, `Remote`, `ActionListener`
- **Example Code:**

```
interface Printable {
    // code snippet
}
```

3. Method

- **Naming Rule:** Start with a lowercase letter and use a verb. For multi-word names, use camelCase (start with a lowercase letter followed by uppercase letters for subsequent words).
- **Examples:** `main()`, `print()`, `println()`, `actionPerformed()`
- **Example Code:**

```
class Employee {
    void draw() {
        // code snippet
    }
}
```

4. Variable

- **Naming Rule:** Start with a lowercase letter. For multi-word names, use camelCase. Avoid starting with special characters and avoid one-character variable names.
- **Examples:** id, name, firstName, lastName
- **Example Code:**

```
class Employee {
    int id;
    // code snippet
}
```

5. Package

- **Naming Rule:** Use all lowercase letters. For multi-word names, separate words with dots.
- **Examples:** java.util, java.lang
- **Example Code:**

```
package com.javatpoint;
class Employee {
    // code snippet
}
```

6. Constant

- **Naming Rule:** Use all uppercase letters. For multi-word names, separate words with underscores. Digits are allowed but not as the first character.
- **Examples:** RED, YELLOW, MAX_PRIORITY, MIN_AGE
- **Example Code:**

```
class Employee {
    static final int MIN_AGE = 18;
    // code snippet
}
```