

Java Identifiers & Naming Conventions

Identifiers in Java are programmer-defined names for variables, methods, classes, packages, and interfaces. They improve code readability and maintainability. Below are the key rules, conventions, and best practices.

Rules for Identifiers:

- Can contain alphabets, digits, underscore (`_`) and dollar (`$`).
- Cannot begin with a digit.
- Java is case-sensitive (e.g., `total` and `Total` are different).
- No limit on length.
- Cannot be a Java keyword.

Examples:

■ **Legal:** `arena`, `s_count`, `marks40`, `class_one`

■ **Illegal:** `1sst`, `2nd number`, `oh!god`

Naming Conventions:

Element	Convention	Example
Class / Interface	PascalCase	<code>StudentDetails</code>
Method	camelCase	<code>calculateMarks()</code>
Variable	camelCase	<code>studentAge</code>
Constant	UPPERCASE	<code>MAX_VALUE</code>
Package	lowercase	<code>com.prowessapps.utils</code>

Best Practices:

- Use meaningful names (e.g., `studentAge` instead of `x`).
- Maintain consistency across project.
- Avoid confusing abbreviations unless standard.
- Don't start with underscores or dollar signs (except generated code).
- Class names = nouns, Method names = verbs.
- Follow community standards.