# **Comparison of Naming and Formatting Conventions in C# and Java**

## **1. Naming Conventions**

### **1.1 Class Names**

**C#:**

* Use **PascalCase**.
* Example: CustomerOrder, EmployeeDetails

**Java:**

* Use **CamelCase** or **UpperCamelCase** (similar to PascalCase).
* Example: CustomerOrder, EmployeeDetails

### **1.2 Method Names**

**C#:**

* Use **PascalCase**.
* Example: CalculateSalary(), GetCustomerDetails()

**Java:**

* Use **camelCase**.
* Example: calculateSalary(), getCustomerDetails()

### **1.3 Variable Names**

**C#:**

* Use **camelCase** for local variables and parameters.
* Example: customerName, totalAmount

**Java:**

* Use **camelCase** for variable names.
* Example: customerName, totalAmount

### **1.4 Constant Names**

**C#:**

* Use **PascalCase** for constants.
* Example: Pi, MaxLength

**Java:**

* Use **UPPER\_CASE** with underscores for constants.
* Example: PI, MAX\_LENGTH

### **1.5 Interface Names**

**C#:**

* Prefix interface names with an **'I'**.
* Example: ICustomerRepository, ILoginService

**Java:**

* Do not prefix interface names with an **'I'**.
* Example: CustomerRepository, LoginService

## **2. Formatting Conventions**

### **2.1 Indentation**

**C#:**

* Use **4 spaces** for indentation.

**Java:**

* Use **4 spaces** for indentation.

### **2.2 Braces Placement**

**C#:**

* Use the **next line** style for braces.
* Example:

if (condition)

{

// code

}

**Java:**

* Use the **same line** style for braces.
* Example:

if (condition) {

// code

}

### **2.3 Line Length**

**C#:**

* Recommended maximum line length is **120 characters**.

**Java:**

* Recommended maximum line length is **80 characters**.

### **2.4 Blank Lines**

**C#:**

* Use blank lines to separate logical sections of code.

**Java:**

* Use blank lines to separate logically related groups of code.

## **3. Summary Table**

|  |  |  |
| --- | --- | --- |
| **Aspect** | **C#** | **Java** |
| **Class Names** | PascalCase | CamelCase/UpperCamelCase |
| **Method Names** | PascalCase | camelCase |
| **Variable Names** | camelCase | camelCase |
| **Constant Names** | PascalCase | UPPER\_CASE |
| **Interface Names** | Prefix with 'I' | No prefix |
| **Indentation** | 4 spaces | 4 spaces |
| **Braces Placement** | Next line | Same line |
| **Line Length** | 120 characters | 80 characters |
| **Blank Lines** | Between logical sections | Between logical sections |

## **Conclusion**

Both C# and Java share many similar conventions, such as indentation with 4 spaces and the use of camelCase for variable names. However, there are notable differences, such as the placement of braces and naming conventions for interfaces and constants. Adhering to these conventions helps maintain code readability and consistency within projects written in these languages.