Must Know Features
If You Don't Want to Be
the "Legacy Coder"



Pariभाषा

Java 24 is here, and if you're still writing Java 8 code in 2024... buddy, it's time for an intervention.

Let's dive into the coolest features (with code) that will make your life easier—or at least help you flex in tech discussions.



1. Computed Constants (JEP 471) - Compile-time evaluated constants! No more runtime calculations clogging your performance.

Before (Java 23 and Below) :

public static final double GRAVITY = 9.81 * 2; // Computed at runtime

Now in Java 24

public static final computed double GRAVITY = 9.81 * 2; // Evaluated at compile-time 🖋

Performance boost and immutability—what's not to love?



2. Implicit Classes & Instance Main Methods (JEP 463) - Java finally lets you skip the public class Main boilerplate.

Before(Java 23 and Below)

```
public class Main {
    public static void main(String[] args) {
        System.out.println("Hello, Java 23!");
    }
}
```

Now in Java 24

```
void main() {
    System.out.println("Hello, Java 24!");
}
```

Just type void main() and Java handles the rest! Simple, elegant, and less typing.



3. Primitive Types in Generics (JEP 456) - No more unnecessary boxing/unboxing!.

Before(Java 23 and Below)

```
List<Integer> numbers = List.of(1, 2, 3); // Boxing slows things down
int firstNumber = numbers.get(0); // Unboxing happens here
```

Now in Java 24

List<int> numbers = List.of(1, 2, 3); // No boxing, direct primitive use &



Better performance and cleaner code. You love to see it.



4. String Templates (JEP 430) - No more String.format() nonsense.

Before(Java 23 and Below)

```
String name = "Manav";
System.out.println("Hello, " + name + "!");
```

Now in Java 24

```
String name = "Manav";
System.out.println(STR."Hello, \{name}!");
```

Reads cleaner, looks modern, and finally catches up to JavaScript & Python



5. Unnamed Variables & Patterns (JEP 456) - Skip variables you don't need!

Before(Java 23 and Below)

```
record Person(String name, int age) {}

Person p = new Person("Alice", 25);
if (p instanceof Person var person) {
    System.out.println(person.name());
}
```

Now in Java 24

```
Person p = new Person("Alice", 25);
if (p instanceof Person(_, int age)) { // Ignore 'name'
    System.out.println("Age: " + age);
}
```





Remaining

6. Performance & Garbage Collector Improvements - Because Java updates and GC improvements go hand in hand.

- Better memory management in G1 and ZGC.
 - Faster warm-up time for Java apps.
- Lower latency means your app runs smoother.



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