

JAVA 21 FEATURES

Unnamed Classes (Preview)

```
new Object() {  
    public void greet() {  
        System.out.println("Hello from an unnamed class!");  
    }  
}.greet();
```

// Unnamed Classes for Concise Single-Use
Constructs

Scoped Values

```
var x = 10;
```

```
// x is scoped to the block and cannot be reassigned
```

```
// Scoped Values for Controlled Mutability
```

String Templates

```
// String Templates for Expressive String Formatting
String name = "Alice";
int age = 30;
String greeting = `Hello, $name! You are ${age} years old.`;
```

- String Templates use the `STR.format()` method to create formatted strings.

Sequenced Collections:

```
// Sequenced Collections for Efficient First/Last Access
import java.util.SequencedList;

SequencedList<String> list = new SequencedList<>();
list.add("A");
list.add("B");
list.addFirst("X");
System.out.println("First element: " + list.first()); // Output: X
```

Pattern Matching for switc

```
// Pattern Matching for Enhanced Switch Statements
Object obj = "Hello";
switch (obj) {
    case String s: System.out.println("It's a string: " + s); break;
    case Integer i: System.out.println("It's an integer: " + i); break;
    default: System.out.println("Unknown type");
}
```