03-Ternary

The **ternary operator** is a concise way to write an if-else statement. It involves three operands: a condition, a result for when the condition is true, and a result for when the condition is false. This operator can help reduce the lines of code required for simple conditional assignments.

Syntax of Ternary Expression

condition ? result_if_true : result_if_false;

Checking if a Number is Even or Odd: Using Simple if-else Approach

int n = 4;

int res = 0;

```
if (n % 2 == 0) {
    res = 10;
} else {
    res = 20;
}
```

System.out.println(res); // Output: 10

Checking if a Number is Even or Odd: Using Ternary Operator

int n = 4;

int res = (n % 2 == 0) ? 10 : 20;

System.out.println(res); // Output: 10

Example with Different Input:

int n = 5;

int res = (n % 2 == 0) ? 10 : 20;

System.out.println(res); // Output: 20

The ternary operator provides a one-line solution for conditional expressions, making the code more compact. However, it may not always be suitable for complex if-else statements that require multiple actions or complex logic.

<mark>Key Points</mark>

- **Conciseness:** The ternary operator reduces the number of lines needed for simple condition checks.

- **Readability:** While the ternary operator can make the code more compact, it should be used carefully to maintain readability, especially for more complex conditions.

- **Limitations:** It is best suited for straightforward if-else scenarios and may not work well for cases involving multiple statements or complex logic.