

# 3 Lecture - CS401

## Important Subjective

1. **What is a comparison operator? Give an example.**

Answer: A comparison operator is used to compare two values and return a Boolean value (true or false). Example: the greater than operator (>), which checks if one value is greater than another.

**What is the difference between the logical AND operator (&&) and the logical OR operator (||)?**

Answer: The logical AND operator returns true if both conditions are true, while the logical OR operator returns true if at least one of the conditions is true.

**What is a conditional statement? Give an example.**

Answer: A conditional statement is a programming construct that executes different code blocks based on the evaluation of a Boolean expression. Example: an if-else statement that checks if a variable is greater than 10 and executes different code blocks accordingly.

**What is short-circuit evaluation in programming?**

Answer: Short-circuit evaluation is a behavior of logical operators in which the second operand is not evaluated if the result of the expression can be determined by the first operand. This can improve performance and avoid errors.

**What is the syntax of a switch-case statement?**

Answer: `switch (expression) { case value1: // code block1 break; case value2: // code block2 break; default: // code block3 }`

**What is the difference between the equal to operator (==) and the assignment operator (=)?**

Answer: The equal to operator compares two values for equality, while the assignment operator assigns a value to a variable.

**What is the purpose of the ternary operator in programming?**

Answer: The ternary operator is a shorthand way of writing an if-else statement that returns a value. It can improve code readability and reduce lines of code.

**What is a truthy value in programming?**

Answer: A truthy value is a value that is considered true in a Boolean context, even if it is not explicitly true. Examples include non-zero numbers and non-empty strings.

**What is the difference between the not equal to operator (!=) and the strict not equal to operator (!==)?**

Answer: The not equal to operator compares two values for inequality, while the strict not equal to operator compares both the value and the type of the values for inequality.

**What is the order of precedence of logical operators in programming?**

Answer: The order of precedence of logical operators is NOT, AND, OR.