

## Lesson : Condition

Condition:

Evaluated to be either true or false using boolean values.

- if Statement
  - Basic Form: Executes code block if condition is true.
  - Syntax Example: `if (condition) { // code block }`
- if-else Statement
  - Description: Executes code block if condition is true, otherwise executes an alternative code block.
  - Syntax Example: `if (condition) { // code block } else { // alternative code block }`
- Nested if Statement
  - Description: if-else statements within another if-else statement.
  - Syntax Example: `if (condition1) { if (condition2) { // code block } }`
- if else if Ladder
  - Description: Allows chaining multiple conditions together.
  - Syntax Example: `if (condition1) { // code block } else if (condition2) { // code block }`

## Loops

- For Loop: Repeats code until the condition is false.
  - Syntax: `for (initial; condition; update) { // code }`
- While Loop: Runs code as long as the condition is true.
- Do-While Loop: Runs code at least once, then continues if the condition is true.

- Break and Continue

- Break: Explicitly terminates the loop.
- Continue: Skips the current iteration and proceeds to the next.

- Switch Statement
  - With & Without Break: Evaluates multiple cases; uses break to prevent fall-through.
  - With Return: Uses return in cases for functions, exiting the switch and returning a value