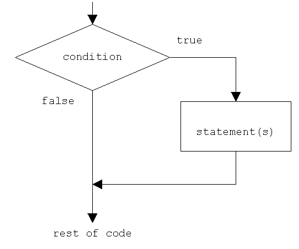
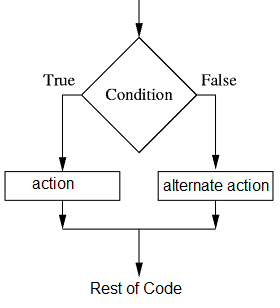
## Conditional Statements



In Python, if statement evaluates the test expression inside parenthesis. If test expression is evaluated to true (nonzero) , statements inside the body of if is executed. If test expression is evaluated to false (0) , statements inside the body of if is skipped.

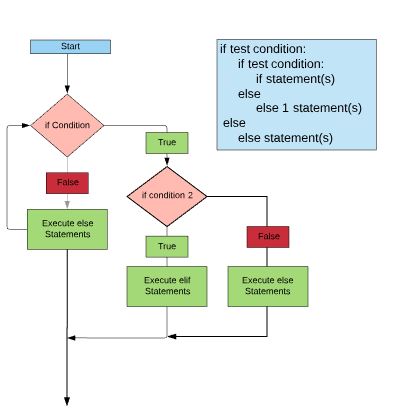
## Python if..else statements

The else statement is to specify a block of code to be executed, if the condition in the if statement is false. Thus, the else clause ensures that a sequence of statements is executed.



## Nested If Statements

Nested if statements are an if statement inside another if statement.



## Repetition

A **repetition statement** is used to repeat a group(block) of programming instructions.

In Python, we generally have two loops/repetitive statements:

for loop

while loop

**for loop:** A for loop is used to iterate over a sequence that is either a list, tuple, dictionary, or a set. We can execute a set of statements once for each item in a list, tuple, or dictionary.

Diagram

Description automatically generated

**while loop:** In Python, *while loops* are used to execute a block of statements repeatedly until a given condition is satisfied. Then, the expression is checked again and, if it is still true, the body is executed again. This continues until the expression becomes false.

Diagram

Description automatically generated