PROGRAMMING: COMMON LANGUAGE STRUCTURES II

IF condition THEN
do_something
ELSE
do_something_else
END IF

* In this example and the next, "statement_executed_when_if_then_is_complete" simply refers to the statement that comes directly after the IF/THEN block. This does not have to be a single-line statement; it may be another loop or programming structure, the end of the program, or any other thing allowed in the programming language in which you are working.

♦ Statements are executed only if the corresponding condition(s) is (are) satisfied.
♦ The condition is tested.
  1. If the condition is satisfied, the statements following THEN are executed.
  2. If the condition is not satisfied, the statements following THEN are skipped, and the statements following ELSE are executed.
  3. After one of these choices is made and processing is complete, control is transferred to the statement following END IF.

IF condition1 THEN
do_something_for_condition1
ELSE IF condition2 THEN
do_something_for_condition2
  . . .
ELSE IF conditionN THEN
do_something_for_conditionN*
ELSE
do_something_else
END IF

* N refers to an integer that stands for some number that you have chosen as the number of the last condition. The numbers 5, 23, and 57 are all valid (acceptable) integers. Therefore, you would have condition5, condition23, and condition 57, instead of the generic term "conditionN" in the last ELSE IF statement above.

♦ Statements are executed only if the corresponding condition(s) is (are) satisfied.
♦ Condition1 is tested.
  1. If it is satisfied, the statements after the first THEN are executed and control is passed to "statement_executed_when_if/then_is_complete."
  2. If condition1 is not satisfied, statements after the first THEN are not executed, the ELSE IF keyword says to test condition2 and to execute the statements following the second THEN, if condition2 is satisfied.
  3. If the condition is not satisfied, the next condition is tested.
  4. The process of testing conditions and executing the statements that follow them if they are satisfied is continued either until one of the conditions is satisfied or until all of the conditions, up to and including the last condition, conditionN, have been tested.
  5. If a condition is satisfied, the statements after the accompanying THEN are executed and control is passed to "statement_executed_when_if/then_is_complete."
  6. If no conditions have been satisfied, the statements following the ELSE statement are executed and control is transferred to "statement_executed_when_if/then_is_complete."