



### Topic: 2.3.3 Selection

Selection is a control structure in which there is a test to decide if certain instructions are executed.

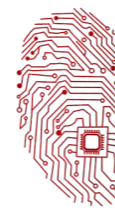
#### IF-THEN-ELSE

This selection method is used if there are two possible outcomes to a test:

```
IF x < 0 THEN
    OUTPUT "Sorry, you can't have negative values"
ELSE
    a = x*x
    OUTPUT a
END IF
```

| Pseudocode   | VB Syntax  | Example   |
|--|--|---|
| <pre>IF &lt;condition&gt; THEN &lt;statement(s)&gt; ENDIF o or, including an 'else' clause: IF &lt;condition&gt; THEN &lt;statement(s)&gt; ELSE &lt;statement(s)&gt; ENDIF</pre> | <pre>' Multiple-line syntax: If condition [ Then ] [ statements ] [ ElseIfelseifcondition [ Then ] [ elseifstatements ] ] [ Else [ elsestatements ] ] End If  ' Single-line syntax: If condition Then [ statements ] [ Else [ elseifstatements ] ]</pre> | <pre>Dim count As Integer = 0 Dim message As String If count = 0 Then message = "There are no items." ElseIf count = 1 Then message = "There is 1 item." Else message = "There are " &amp; count &amp; " items." End If</pre> |





### Topic: 2.3.3 Selection

#### SELECT-CASE

This selection method is used if there are more than two possible outcomes to a test:

```
SELECT CASE KeyPress
  CASE LeftArrow
    Move one character backwards
  CASE RightArrow
    Move one character forwards
  CASE UpArrow
    Move one character up
  CASE DownArrow
    Move one character down
END SELECT
```

| Pseudocode   | VB Syntax  | Example   |
|--|--|---|
| <pre>CASE OF &lt;identifier&gt; &lt;value 1&gt;: &lt;statement&gt; &lt;value 2&gt;: &lt;Statement&gt; ... ENDCASE or alternatively: CASE OF &lt;identifier&gt; &lt;value 1&gt;: &lt;statement&gt; &lt;value 2&gt;: &lt;Statement&gt; ... OTHERWISE &lt;statement&gt; ENDCASE</pre> | <pre>Select [ Case ] testexpression   [ Case expressionlist     [ statements ] ]   [ Case Else     [ elsestatements ]   ] End Select</pre> | <pre>Dim number As Integer = 8 Select Case number   Case 1 To 5     Debug.WriteLine("Between 1 and 5, inclusive")   Case 6, 7, 8     Debug.WriteLine("Between 6 and 8, inclusive")   Case 9 To 10     Debug.WriteLine("Equal to 9 or 10")   Case Else     Debug.WriteLine("Not between 1 and 10, inclusive") End Select</pre> |

