

32. Using EVALUATE (1)

EVALUATE may be used instead of IF..ELSE and is particularly useful whenever there is a long list of possible courses of action which could be taken depending on some value stored in a data item.

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e.g. (1)  EVALUATE COURSE-CODE
           WHEN 1 DISPLAY 'ENGINEERING'
           WHEN 2 DISPLAY 'COMPUTER SCIENCE'
           WHEN 3 DISPLAY 'SCIENCE'
           WHEN OTHER DISPLAY 'INVALID COURSE CODE'
           END-EVALUATE
```

In the example above, the data item COURSE-CODE will be checked and action taken accordingly (i.e when course-code = 1, then 'Engineering' will be displayed, etc).

It is also possible to specify that a particular course of action will be taken if the data item is within a certain range.

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e.g. (2)  EVALUATE STUDENT-MARK
           WHEN 85 THRU 100 DISPLAY 'DISTINCTION'
           WHEN 65 THRU 74  DISPLAY 'MERIT'
           WHEN 50 THRU 64  DISPLAY 'PASS'
           WHEN 0 THRU 49   DISPLAY 'FAIL'
           END-EVALUATE
```

This example assumes that STUDENT-MARK will always be a whole number. If the mark could be a fraction (such as 64.5 which is not included in any of the ranges above) the coding would have to be changed: e.g. WHEN 50 THRU 64.9 ..

Sometimes, the action to be taken may depend on an alphabetic or alphanumeric data item.

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e.g. (3)  EVALUATE STUDENT-GRADE
           WHEN 'A'   DISPLAY 'DISTINCTION'
           WHEN 'B'   DISPLAY 'MERIT'
           WHEN 'C'   DISPLAY 'PASS'
           WHEN OTHER DISPLAY 'FAIL'
           END-EVALUATE
```

Exercises

Using EVALUATE

1. Write a program which will ask a student for his/her mark (out of ten) and display 'Grade A' for a mark of 8 or more; 'Grade B' for 6 or 7; 'Grade C' for 4 or 5; 'Grade D' for any other mark.
2. Write a program which will ask an employee to key in his/her job grade ('A', 'B', 'C' or 'D') and which will then display the appropriate wage (£500, £300, £200, £100 respectively).