Kyoungjin Yoon

IT 106 003

Assignment 9 Pseudocode

Defining Diagram

|  |  |  |
| --- | --- | --- |
| Input | Processing | Output |
| Employee\_Names   * - key (to exit entering employee\_Names)   employee\_Sales | Prompt user for employee\_Names  Read employee\_Names  Prompt user for employee\_Sales  Read employee\_Sales  Validate employee\_Sales for numbers only  Validate employee\_Sales between 0 and 500,000  Add all of the employee\_Sales elements and divide it by numbers of employee\_sales elements  Determine performances  Display employee\_Name, employee\_Sales, employee\_Performance | Employee\_Names  employee\_Sales  employee\_Performance  Bonus  Error\_employeeSales\_letter  Error\_employeeSales\_range |

Structure Diagram

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | | BEGIN EMPLOYEE EVALUATION |  | |
| Gather\_  employee\_  names | Gather\_  employee\_  sales | Calculate\_  sales\_  average | Determine\_  performance | Print\_  employee\_  performance |

Solution Diagram

1. Gather\_employee\_names
2. Gather\_employee\_sales
3. Calculate\_sales\_average
4. Determine\_performance
5. Print\_employee\_performance

BEGIN gather\_employee\_names

1. Set employee\_Number to zero
2. Set names (index) to maximum to 10
3. DO 1 to 10

Prompt user for elements of names (index)

Read names (index)

IF names (index) = ‘-‘ THEN

Display “You will be proceeded to entering sales.”

Break the loop

ELSE

Increment employee\_Number

ENDIF

ENDDO

1. Set Employee\_names\_final (index) to maximum to employee\_Number
2. DO 1 to employee\_Number

Employee\_names\_final (index) = names (index)

ENDDO

END gather\_employee\_names

BEGIN gather\_employee\_sales

1. Set employee\_sales (index) to number of Employee\_names\_final (index)
2. IF number of Employee\_names\_final (index) = 10 THEN

Display “You entered maximum number of 10 employee names.”

ENDIF

1. DO 1 to number of Employee\_names\_final (index)

Prompt user for elements of employee\_sales (index)

Read employee\_sales (index)

IF employee\_sales NOT number THEN

Display Error\_employeeSales\_letter

Re-prompt for elements of employee\_sale (index)

Read employee\_sale (index)

ELSE IF employee\_sales < 0 OR employee\_sales > 500000 THEN

Display Error\_employeeSales\_range

Re-prompt for elements of employee\_sale (index)

Read employee\_sale (index)

ENDIF

ENDDO

END

BEGIN Calculate\_sales\_average

1. Set employee\_total to zero
2. DO 1 to number of employee\_sales (index)

Employee\_total = employee\_sales (index)

Set employee\_average to employee\_total / number of employee\_sales (index)

ENDDO

END

BEGIN Determine\_performance

1. Set employee\_performance (index) to number of employee\_sales
2. DO 1 to number of employee\_sales

Set bonus to employee\_sales \* 0.05

IF employee\_sales > employee\_average THEN

Set Employee\_performance to ‘You earn bonus.’

ELSE IF employee\_sales = employee\_average THEN

Set employee\_performance to ‘You are doing average work.’

ELSE IF employee\_sales < employee\_average THEN

Set employee\_performance to ‘You need to work harder.’

ENDIF

ENDDO

END

Print\_employee\_performance

1. DO 1 to number of employee\_sales

Display employee\_names\_final (index), employee\_sales (index), and employee\_performance (index), bonus

ENDDO

END

END

END

TEST DATA

|  |  |  |
| --- | --- | --- |
|  | FIRST DATA SET | SECOND DATA SET |
| Employee\_Names | Joe EmployeeOne, Mike EmployeeTwo, Ethan EmployeeThree, Xavier EmployeeFour, Kim EmployeeFive, Erick EmployeeSix, Josh EmployeeSeven, Ashley EmployeeEight, Zack EmployeeNine, Paul EmployeeTen | Ashley EmployeeEight,  Mike EmployeeTwo  Kim EmployeeFive  - |
| Employee\_Sales | 300000, 200000, vsdmlk, sdDDICsk@#$’34@#, QQQQQQ, 150000, 400000, -12321124, 12421841279, 0, 350000, 58000, 20000, 500000.01, 499999, 430000 | 500000, 100000, 300000 |

EXPECTED RESULT

|  |  |  |
| --- | --- | --- |
|  | FIRST DATA SET | SECOND DATA SET |
| Employee\_Names | Joe EmployeeOne, Mike EmployeeTwo, Ethan EmployeeThree, Xavier EmployeeFour, Kim EmployeeFive, Erick EmployeeSix, Josh EmployeeSeven, Ashley EmployeeEight, Zack EmployeeNine, Paul EmployeeTen | Ashley EmployeeEight,  Mike EmployeeTwo  Kim EmployeeFive |
| Employee\_Sales | 300000, 200000, 150000, 400000, 0, 350000, 58000, 20000, 499999, 430000 | 500000, 100000, 300000 |
| Employee\_Performance | ‘You earn bonus.’  ‘You need to work harder.’  ‘You need to work harder.’  ‘You earn bonus.’  ‘You need to work harder.’  ‘You earn bonus.’  ‘You need to work harder.’  ‘You need to work harder.’  ‘You earn bonus.’  , ‘You earn bonus.’ | ‘You earn bonus.’  ‘You need to work harder.’  ‘You are doing an average work.’ |
| Bonus | 15000.00, 0, 0, 20000.00, 0, 17500.00, 0, 0, 24999.95, 21500.00 | 25000.00, 0, 0 |
| Error\_employeeSales\_letter | Display |  |
| Error\_employeeSales\_range | Display |  |

Desk Checking Table

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Employee\_  name | Employee\_  Number | Names | | DO  Condition | Employee\_  Name\_  final | | Employee\_  sales | | | Employee\_  total | | Employee\_  average | Employee\_  performance | | Bonus | Error\_  Employeesales  \_letter | Error\_  Employeesales  \_range |
| First  Data  Set |  |  | | |  |  | | | | |  | |  | | | | | |
| 1 | Joe EmployeeOne, Mike EmployeeTwo, Ethan EmployeeThree, Xavier EmployeeFour, Kim EmployeeFive, Erick EmployeeSix, Josh EmployeeSeven, Ashley EmployeeEight, Zack EmployeeNine, Paul EmployeeTen |  |  | |  |  | |  | | |  | |  |  | |  |  |  |
| 2 |  |  |  | |  |  | | 300000, 200000, 150000, 400000, 0, 350000, 58000, 20000, 499999, 430000 | | |  | |  |  | |  |  |  |
| 3 |  |  |  | |  |  | |  | | |  | | 240799.90 |  | |  |  |  |
| 4 |  |  |  | |  |  | |  | | |  | |  | ‘You earn bonus.’  ‘You need to work harder.’  ‘You need to work harder.’  ‘You earn bonus.’  ‘You need to work harder.’  ‘You earn bonus.’  ‘You need to work harder.’  ‘You need to work harder.’  ‘You earn bonus.’  , ‘You earn bonus.’ | |  |  |  |
| 5 | display |  |  | |  |  | | display | | |  | |  | display | |  |  |  |
| 6 |  | 0 |  | |  |  | |  | | |  | |  |  | |  |  |  |
| 7 |  |  | 10 | |  |  | |  | | |  | |  |  | |  |  |  |
| 8 | Joe EmployeeOne, Mike EmployeeTwo, Ethan EmployeeThree, Xavier EmployeeFour, Kim EmployeeFive, Erick EmployeeSix, Josh EmployeeSeven, Ashley EmployeeEight, Zack EmployeeNine, Paul EmployeeTen | 10 |  | | False |  | |  | | |  | |  |  | |  |  |  |
| 9 |  |  |  | |  | 10 | |  | | |  | |  |  | |  |  |  |
| 10 |  |  |  | | False | Joe EmployeeOne, Mike EmployeeTwo, Ethan EmployeeThree, Xavier EmployeeFour, Kim EmployeeFive, Erick EmployeeSix, Josh EmployeeSeven, Ashley EmployeeEight, Zack EmployeeNine, Paul EmployeeTen | |  | | |  | |  |  | |  |  |  |
| 11 |  |  |  | |  |  | | 10 | |  | |  | |  | |  |  |  |
| 12 |  |  |  | |  |  | | You entered maximum number of 10 employee names | |  | |  | |  | |  |  |  |
| 13 |  |  |  | | False |  | | 300000, 200000, vsdmlk, sdDDICsk@#$’34@#, QQQQQQ, 150000, 400000, -12321124, 12421841279, 0, 350000, 58000, 20000, 500000.01, 499999, 430000 | |  | |  | |  | |  | Display | display |
| 14 |  |  |  | |  |  | |  | | 0 | |  | |  | |  |  |  |
| 15 |  |  |  | | False |  | |  | | 2407999 | | 240799.90 | |  | |  |  |  |
| 16 |  |  |  | |  |  | |  | |  | |  | | 10 | |  |  |  |
| 17 |  |  |  | | False |  | |  | |  | |  | | ‘You earn bonus.’  ‘You need to work harder.’  ‘You need to work harder.’  ‘You earn bonus.’  ‘You need to work harder.’  ‘You earn bonus.’  ‘You need to work harder.’  ‘You need to work harder.’  ‘You earn bonus.’  , ‘You earn bonus.’ | | 15000.00, 0, 0, 20000.00, 0, 17500.00, 0, 0, 24999.95, 21500.00 |  |  |
| 18 |  |  |  | | false |  | | display | |  | |  | | display | | display |  |  |
| Second  Data  Set |  |  |  | |  |  | |  | |  | |  | |  | |  |  |  |
| 1 | Ashley EmployeeEight,  Mike EmployeeTwo  Kim EmployeeFive |  | |  |  |  | | |  |  | |  | | |  |  |  |  |
| 2 |  |  | |  |  |  | | | 500000, 100000, 300000 |  | |  | | |  |  |  |  |
| 3 |  |  | |  |  |  | | |  |  | | 300000.00 | | |  |  |  |  |
| 4 |  |  | |  |  |  | | |  |  | |  | | | ‘You earn bonus.’  ‘You need to work harder.’  ‘You are doing an average work.’ |  |  |  |
| 5 | display |  | |  |  |  | | | display |  | |  | | | display |  |  |  |
| 6 |  | 0 | |  |  | |  | |  |  | |  | | |  |  |  |  |
| 7 |  |  | | 10 |  | |  | |  |  | |  | | |  |  |  |  |
| 8 | Ashley EmployeeEight,  Mike EmployeeTwo  Kim EmployeeFive  , - | 10 | |  | False | |  | |  |  | |  | | |  |  |  |  |
| 9 |  |  | |  |  | | 3 | |  |  | |  | | |  |  |  |  |
| 10 |  |  | |  | False | | Ashley EmployeeEight,  Mike EmployeeTwo  Kim EmployeeFive | |  |  | |  | | |  |  |  |  |
| 11 |  |  | |  |  | |  | | 10 |  | |  | | |  |  |  |  |
| 12 |  |  | |  |  | |  | |  |  | |  | | |  |  |  |  |
| 13 |  |  | |  | False | |  | | 500000, 100000, 300000 |  | |  | | |  |  |  |  |
| 14 |  |  | |  |  | |  | |  | 0 | |  | | |  |  |  |  |
| 15 |  |  | |  | False | |  | |  | 900000 | | 300000 | | |  |  |  |  |
| 16 |  |  | |  |  | |  | |  |  | |  | | | 10 |  |  |  |
| 17 |  |  | |  | False | |  | |  |  | |  | | | ‘You earn bonus.’  ‘You need to work harder.’  ‘You are doing an average work.’ |  |  |  |
| 18 |  |  | |  | false | |  | | display |  | |  | | | display | display |  |  |



