

TASK 1 - Pseudocode

```
// The following four 1D arrays can store different pieces of data about stock
// items in a shop:
// Array identifier      Data type
// -----
// Category              STRING
// ItemCode              STRING
// ItemDescription       STRING
// Price                 REAL

CONSTANT items = 17
DECLARE Category : ARRAY[1,Items] : STRING
DECLARE ItemCode : ARRAY[1,Items] : STRING
DECLARE ItemDescription : ARRAY[1,Items] : STRING
DECLARE Price : ARRAY[1,Items] : REAL

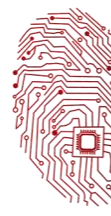
DECLARE newSaleItem : ARRAY[1,7] : STRING
DECLARE newSaleItemPrice : ARRAY[1,7] : REAL

DECLARE myOption : CHARACTER
DECLARE ItemID : STRING
DECLARE myPrice : STRING
DECLARE ComputerPrice : REAL
DECLARE itemCount : INTEGER

// Task 1 - Setting up the system AND ordering the main items.
// Write a program to:
// • use arrays TO store the item code, description AND price
// • allow a customer TO choose one case, one RAM AND one Main Hard Disk Drive
// • calculate the price of the computer using the cost of the chosen items AND
//   the basic set of components
// • store AND output the chosen items AND the price of the computer.

// Initialise all SC arrays used
DECLARE x : INTEGER
FOR x = 1 TO items
    Category[x] = ""
    ItemCode[x] = ""
    ItemDescription[x] = ""
    Price[x] = 0
NEXT
```





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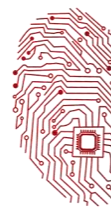
```
// Auto populate the SD arrays using predetermined values
```

```
Category[1] = "Case"  
Category[2] = "Case"  
Category[3] = "RAM"  
Category[4] = "RAM"  
Category[5] = "RAM"  
Category[6] = "Main Hard Disk Drive"  
Category[7] = "Main Hard Disk Drive"  
Category[8] = "Main Hard Disk Drive"  
Category[9] = "Solid State Drive"  
Category[10] = "Solid State Drive"  
Category[11] = "Second Hard Disk Drive"  
Category[12] = "Second Hard Disk Drive"  
Category[13] = "Second Hard Disk Drive"  
Category[14] = "Optical Drive"  
Category[15] = "Optical Drive"  
Category[16] = "Operating System"  
Category[17] = "Operating System"
```

```
ItemCode[1] = "A1"  
ItemCode[2] = "A2"  
ItemCode[3] = "B1"  
ItemCode[4] = "B2"  
ItemCode[5] = "B3"  
ItemCode[6] = "C1"  
ItemCode[7] = "C2"  
ItemCode[8] = "C3"  
ItemCode[9] = "D1"  
ItemCode[10] = "D2"  
ItemCode[11] = "E1"  
ItemCode[12] = "E2"  
ItemCode[13] = "E3"  
ItemCode[14] = "F1"  
ItemCode[15] = "F2"  
ItemCode[16] = "G1"  
ItemCode[17] = "G2"
```

```
ItemDescription[1] = "Case Compact"  
ItemDescription[2] = "Case Tower"  
ItemDescription[3] = "RAM 8 GB"  
ItemDescription[4] = "RAM 16 GB"  
ItemDescription[5] = "RAM 32 GB"  
ItemDescription[6] = "Main Hard Disk Drive 1 TB HDD"  
ItemDescription[7] = "Main Hard Disk Drive 2 TB HDD"  
ItemDescription[8] = "Main Hard Disk Drive 4 TB HDD"  
ItemDescription[9] = "Solid State Drive 240 GB SSD"  
ItemDescription[10] = "Solid State Drive 480 GB SSD"  
ItemDescription[11] = "Second Hard Disk Drive 1 TB HDD"  
ItemDescription[12] = "Second Hard Disk Drive 2 TB HDD"  
ItemDescription[13] = "Second Hard Disk Drive 4 TB HDD"
```





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```
ItemDescription[14] = "Optical Drive DVD/Blu-Ray Player"
ItemDescription[15] = "Optical Drive DVD/Blu-Ray Re-writer"
ItemDescription[16] = "Operating System Standard Version"
ItemDescription[17] = "Operating System Professional Version"
```

```
Price[1] = 75.0
Price[2] = 150.0
Price[3] = 79.99
Price[4] = 149.99
Price[5] = 299.99
Price[6] = 49.99
Price[7] = 89.99
Price[8] = 129.99
Price[9] = 59.99
Price[10] = 119.99
Price[11] = 49.99
Price[12] = 89.99
Price[13] = 129.99
Price[14] = 50.0
Price[15] = 100.0
Price[16] = 100.0
Price[17] = 175.0
```

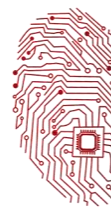
```
OUTPUT "All arrays are populated successfully."
```

```
OUTPUT "Item code  "
OUTPUT "Item description  "
OUTPUT "Item price  "
OUTPUT "Category"
OUTPUT "-----"
FOR x = 1 TO 8
    OUTPUT ItemCode[x] + Space(9)
    OUTPUT ItemDescription[x] + Space(40 - LEN(ItemDescription[x]))
    myPrice = Price[x]
    OUTPUT myPrice + Space(12 - LEN(myPrice))
    OUTPUT Category[x]
NEXT
```

```
OUTPUT "New sale initiated - Default basic set of components costing $200 is added."
```

```
OUTPUT "One case, one RAM AND one Main Hard Disk Drive is required TO be added."
```





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```
OUTPUT "Item code "
OUTPUT "Item description "
OUTPUT "Item price "
OUTPUT "Category"
OUTPUT "-----"
FOR x = 1 TO 2
    OUTPUT ItemCode[x] + Space(9)
    OUTPUT ItemDescription[x] + Space(40 - LEN(ItemDescription[x]))
    myPrice = Price[x]
    OUTPUT myPrice + Space(12 - LEN(myPrice))
    OUTPUT Category[x]
NEXT
WHILE ItemID <> "A1" AND ItemID <> "A2"
    OUTPUT "Chose a Case Item Code: "
    INPUT ItemID

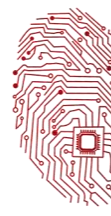
    IF ItemID <> "A1" OR ItemID <> "A2" THEN
        OUTPUT "Chose either A1 OR A2."
    END IF
END WHILE

IF ItemID = "A1" THEN
    newSaleItem[1] = ItemDescription[1]
    newSaleItemPrice[1] = Price[1]
END IF

IF ItemID = "A2" THEN
    newSaleItem[1] = ItemDescription[2]
    newSaleItemPrice[1] = Price[2]
END IF

OUTPUT "Item code "
OUTPUT "Item description "
OUTPUT "Item price "
OUTPUT "Category"
OUTPUT "-----"
FOR x = 3 TO 5
    OUTPUT ItemCode[x] + Space(9)
    OUTPUT ItemDescription[x] + Space(40 - LEN(ItemDescription[x]))
    myPrice = Price[x]
    OUTPUT myPrice + Space(12 - LEN(myPrice))
    OUTPUT Category[x]
NEXT
```





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```
WHILE ItemID <> "B1" AND ItemID <> "B2" AND ItemID <> "B3"
    OUTPUT "Chose a RAM Item Code: "
    INPUT ItemID

    IF ItemID <> "B1" OR ItemID <> "B2" OR ItemID <> "B3" THEN
        OUTPUT "Chose either B1, B2 OR B3."
    END IF
END WHILE

IF ItemID = "B1" THEN
    newSaleItem[2] = ItemDescription[3]
    newSaleItemPrice[2] = Price[3]
END IF

IF ItemID = "B2" THEN
    newSaleItem[2] = ItemDescription[4]
    newSaleItemPrice[2] = Price[4]
END IF

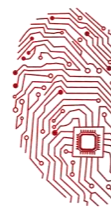
IF ItemID = "B3" THEN
    newSaleItem[2] = ItemDescription[4]
    newSaleItemPrice[2] = Price[4]
END IF

OUTPUT "Item code  "
OUTPUT "Item description  "
OUTPUT "Item price  "
OUTPUT "Category"
OUTPUT "-----"
FOR x = 6 TO 8
    OUTPUT ItemCode[x] + Space(9)
    OUTPUT ItemDescription[x] + Space(40 - LEN(ItemDescription[x]))
    myPrice = Price[x]
    OUTPUT myPrice + Space(12 - LEN(myPrice))
    OUTPUT Category[x]
NEXT

WHILE ItemID <> "C1" AND ItemID <> "C2" AND ItemID <> "C3"
    OUTPUT "Chose a Main Hard Disk Drive Item Code: "
    INPUT ItemID

    IF ItemID <> "C1" OR ItemID <> "C2" OR ItemID <> "C3" THEN
        OUTPUT "Chose either C1, C2 OR C3."
    END IF
END WHILE
```





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```
IF ItemID = "C1" THEN
    newSaleItem[3] = ItemDescription[6]
    newSaleItemPrice[3] = Price[6]
END IF

IF ItemID = "C2" THEN
    newSaleItem[3] = ItemDescription[7]
    newSaleItemPrice[3] = Price[7]
END IF

IF ItemID = "C3" THEN
    newSaleItem[3] = ItemDescription[8]
    newSaleItemPrice[3] = Price[8]
END IF

itemCount = 3

ComputerPrice = 200
OUTPUT "Computer Invoice"
OUTPUT "Item description"
OUTPUT "Item price"
OUTPUT "-----"

FOR x = 1 TO 3
    OUTPUT newSaleItem[x] + Space(40 - LEN(newSaleItem[x]))
    myPrice = newSaleItemPrice[x]
    OUTPUT myPrice
    ComputerPrice = ComputerPrice + newSaleItemPrice[x]
NEXT
OUTPUT "Basic set of components" + Space(17)
myPrice = 200
OUTPUT myPrice

OUTPUT "-----"
OUTPUT "Total price of the computer: " + ComputerPrice
```

