Pseudocode

```
DECLARE baguetteSize: ARRAY[1:2] OF INTEGER
DECLARE baguetteSizeName : ARRAY[1:2] OF STRING

DECLARE breadType: ARRAY[1:3] OF INTEGER
DECLARE breadTypeName: ARRAY[1:3] OF STRING

DECLARE fillings: ARRAY[1:6] OF INTEGER
DECLARE fillingsName: ARRAY[1:6] OF STRING

DECLARE salad : ARRAY[1:5] OF INTEGER
DECLARE saladName : ARRAY[1:5] OF STRING
DECLARE saladChoiceList : ARRAY[1:3] OF STRING

DECLARE sizeFlag : BOOLEAN
DECLARE breadFlag : BOOLEAN
DECLARE fillingFlag : BOOLEAN
DECLARE saladFlag : BOOLEAN
DECLARE changeOrder : BOOLEAN
DECLARE cancelOrder : BOOLEAN
DECLARE moreOrder : BOOLEAN

DECLARE orderNo : INTEGER

DECLARE sizeChoice : INTEGER
DECLARE breadChoice : INTEGER
DECLARE fillingChoice : INTEGER
DECLARE saladChoice : INTEGER
DECLARE size : INTEGER

DECLARE saladCount : INTEGER = 0

DECLARE addSalad : STRING
DECLARE more : STRING
DECLARE sizeDisplay : STRING
DECLARE bread : STRING
DECLARE filling : STRING
DECLARE confirmOrder : STRING
DECLARE changeOrderChoice : STRING
DECLARE cancelOrderChoice : STRING
DECLARE moreOrderChoice : STRING

DECLARE COUNT : INTEGER
```
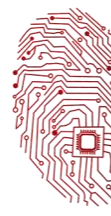
Pseudocode

```
FOR Count = 1 TO 2
      baguetteSize[Count] = 0
NEXT

FOR Count = 1 TO 3
      breadType[Count] = 0
NEXT

FOR Count = 1 TO 6
      fillings[Count] = 0
NEXT

FOR Count = 1 to 5
      salad[Count] = 0
NEXT

baguetteSizeName[1] = "15cm"
baguetteSizeName[2] = "30cm"

breadTypeName[1] = "White"
breadTypeName[2] = "Brown"
breadTypeName[3] = "Seeded"

fillingsName[1] = "Beef"
fillingsName[2] = "Chicken"
fillingsName[3] = "Cheese"
fillingsName[4] = "Egg"
fillingsName[5] = "Tuna"
fillingsName[6] = "Turkey"

saladName[1] = "Lettuce"
saladName[2] = "Tomato"
saladName[3] = "Sweetcorn"
saladName[4] = "Cucumber"
saladName[5] = "Peppers"

saladChoiceList[1] = ""
saladChoiceList[2] = ""
saladChoiceList[3] = ""

orderNo = 0

moreOrder = TRUE
changeOrder = TRUE

WHILE moreOrder = TRUE
      WHILE changeOrder = TRUE
            OUTPUT "Baguette sizes:"
            OUTPUT "1. 15cm"
            OUTPUT "2. 30cm"
```
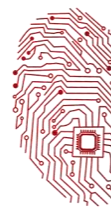
Pseudocode

```
sizeFlag = False

WHILE sizeFlag = False
        OUTPUT "Enter your choice [1-2]: "
        INPUT sizeChoice

        IF sizeChoice < 1 OR sizeChoice > 2 THEN
                OUTPUT "Please enter a valid choice of size
                        [1-2]."
        ELSE
                baguetteSize[sizeChoice] = _
                  baguetteSize[sizeChoice] + 1
                sizeFlag = TRUE
        END IF
END WHILE

OUTPUT "Bread types:"
OUTPUT "1. White"
OUTPUT "2. Brown"
OUTPUT "3. Seeded"

breadFlag = FALSE

WHILE breadFlag = FALSE
        OUTPUT "Enter your choice [1-3]: "
        INPUT breadChoice

        IF breadChoice < 1 OR breadChoice > 3 THEN
                OUTPUT "Please enter a valid choice of bread
                        [1-3]."
        ELSE
                breadType[breadChoice] = _
                  breadType[breadChoice] + 1
                breadFlag = True
        END IF
END WHILE

OUTPUT "Baguette fillings:"
OUTPUT "1. Beef"
OUTPUT "2. Chicken"
OUTPUT "3. Cheese"
OUTPUT "4. Egg"
OUTPUT "5. Tuna"
OUTPUT "6. Turkey"

fillingFlag = FALSE
```
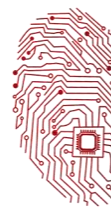
Pseudocode

```
WHILE fillingFlag = FALSE
        OUTPUT "Enter your choice [1-6]: "
        INPUT fillingChoice

        IF fillingChoice < 1 OR fillingChoice > 6 THEN
                OUTPUT "Please enter a valid choice of
                filling [1-6]."
        ELSE
                fillings[fillingChoice] = _
                  fillings[fillingChoice] + 1
                fillingFlag = TRUE
        END IF
END WHILE

saladCount = 0

OUTPUT "Salad options:"
OUTPUT "1. Lettuce"
OUTPUT "2. Tomato"
OUTPUT "3. Sweetcorn"
OUTPUT "4. Cucumber"
OUTPUT "5. Peppers"

OUTPUT "Would you like to add salads to your baguette?
        (Y/N)"
INPUT addSalad

IF UPPER(addSalad) = "Y" THEN
        saladFlag = FALSE
        more = TRUE

        WHILE saladFlag = FALSE OR (saladCount < 3 AND more
                        = TRUE)
                OUTPUT "You may choose up to" & (3 -
                    saladCount) & " more salad(s). Enter
                    your next choice [1-5]: "
                INPUT saladChoice



                IF saladChoice < 1 OR saladChoice > 5 THEN
                        OUTPUT "Please enter a valid choice
                                of salad [1-5]."
                ELSE
                        salad[SaladChoice] = _
                        salad[SaladChoice] + 1
                        saladFlag = TRUE
                        saladCount = saladCount + 1
                        saladChoiceList[saladCount] = _
```
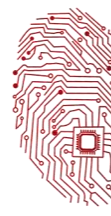
Pseudocode

```
                            saladChoice

                    IF saladCount < 3 THEN
                            OUTPUT "Would you like to add
                                another salad? (Y/N): "
                            INPUT more

                            IF UPPER(more) = "Y" THEN
                                    more = TRUE
                            ELSE
                                    more = FALSE
                            END IF
                    END IF
                END IF
        END WHILE
END IF

sizeDisplay = baguetteSizeName[sizeChoice]
bread = breadTypeName[breadChoice]
filling = fillingsName[fillingChoice]

OUTPUT "Your ordered baguette:"
OUTPUT ""
OUTPUT "Size:"
OUTPUT sizeDisplay
OUTPUT "Bread:"
OUTPUT bread
OUTPUT "Filling:"
OUTPUT filling
OUTPUT "Salad(s):"

FOR saladCount = 1 TO 3
        IF saladChoiceList[saladCount] <> "" THEN
          OUTPUT saladName[saladChoiceList[saladCount]]
        END IF
NEXT

OUTPUT "Confirm order? (Y/N): "
INPUT confirmOrder


IF UPPER(confirmOrder) = "N" THEN
        confirmOrder = FALSE

        changeOrder = FALSE
        cancelOrder = FALSE

        WHILE changeOrder = FALSE AND cancelOrder = FALSE
                OUTPUT "Would you like to change your order
                    or cancel it? (change/cancel): "
```
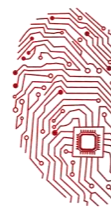
Pseudocode

```
                       INPUT changeOrderChoice

                       IF UPPER(changeOrderChoice) = "CHANGE" THEN
                              changeOrder = TRUE
                       ELSEIF UPPER(changeOrderChoice) = "CANCEL"
                              THEN
                              cancelOrder = TRUE
                       ELSE
                              OUTPUT "Please enter a valid choice:"
                       END IF
                END WHILE

         ELSEIF UPPER(confirmOrder) = "Y" THEN
                changeOrder = FALSE
                cancelOrder = FALSE
                orderNo = orderNo + 1
                OUTPUT "Your order number is: " & orderNo)
         END IF
   END WHILE

   OUTPUT "Would you like to order another baguette? (Y/N): "
   INPUT moreOrderChoice

   IF UPPER(moreOrderChoice) = "Y" THEN
          moreOrder = TRUE
   ELSE
          moreOrder = FALSE
          CALL Task23()
   END IF
END WHILE
```
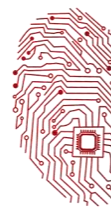
Pseudocode

```
PROCEUDRE Task23()

        DECLARE totalSize15 : INTEGER
        DECLARE totalSize30 : INTEGER

        DECLARE totalBreadWhite : INTEGER
        DECLARE totalBreadBrown : INTEGER
        DECLARE totalBreadSeeded : INTEGER

        DECLARE totalFillingBeef : INTEGER
        DECLARE totalFillingChicken : INTEGER
        DECLARE totalFillingCheese : INTEGER
        DECLARE totalFillingEgg : INTEGER
        DECLARE totalFillingTuna : INTEGER
        DECLARE totalFillingTurkey : INTEGER

        DECLARE totalBaguettesSold : INTEGER

        totalBaguettesSold = orderNo

        totalSize15 = baguetteSize[1]
        totalSize30 = baguetteSize[2]

        totalBreadWhite = breadType[1]
        totalBreadBrown = breadType[2]
        totalBreadSeeded = breadType[3]

        totalFillingBeef = fillings[1]
        totalFillingChicken = fillings[2]
        totalFillingCheese = fillings[3]
        totalFillingEgg = fillings[4]
        totalFillingTuna = fillings[5]
        totalFillingTurkey = fillings[6]

        DECLARE mostFilling : INTEGER
        DECLARE leastFilling : INTEGER
        DECLARE mostPopularPerc : REAL
        DECLARE leastPopularPerc : REAL
        DECLARE mostPopularName : STRING = ""
        DECLARE leastPopularName : STRING = ""

        mostFilling = -10000
        leastFilling = 10000
```
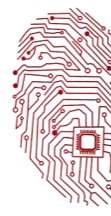
Pseudocode

```
FOR Count = 1 TO 6
        IF fillings[Count] > mostFilling THEN
                mostFilling = fillings[Count]
                mostPopularName = fillingsName[Count]
        ELSEIF fillings[Count] < leastFilling THEN
                leastFilling = fillings[Count]
                leastPopularName = fillingsName[Count]
        END IF
NEXT

mostPopularPerc = (mostFilling / orderNo) * 100
leastPopularPerc = (leastFilling / orderNo) * 100

OUTPUT ""
OUTPUT "The most popular baguette filling was " & mostPopularName & "
        with an order of " & mostPopularPerc & "%"
OUTPUT "The least popular baguette filling was " & leastPopularName & "
        with an order of " & leastPopularPerc & "%"
END PROCEDURE
```