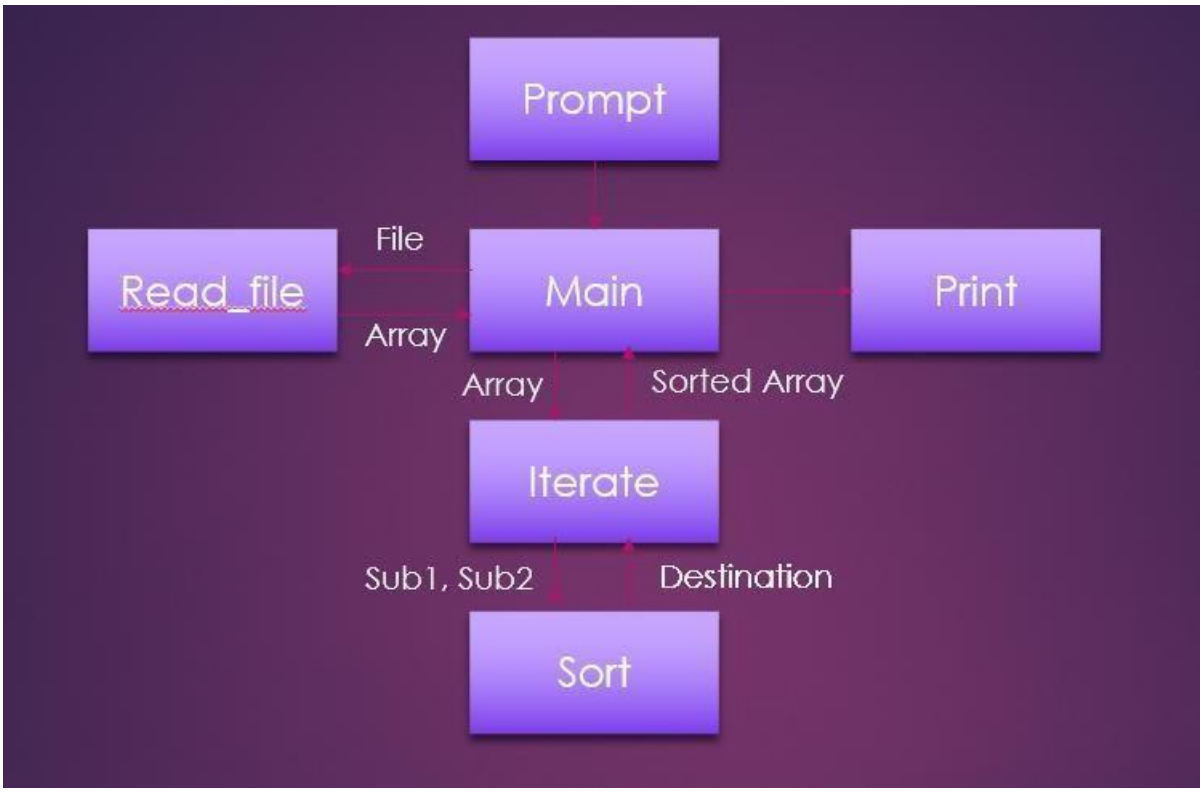
1. Name:
Penelope Sanchez
#2. Assignment Name:
LAB 12 : SEGREGATION SORT ANALYSIS
#3. Assignment Description:
Design the segregation sort algorithm.
4. What was the hardest part? Be as specific as possible.
Create the Structure Chart
5. How long did it take for you to complete the assignment?
4 hrs

Structure Chart



Pseudocode

```
array: sortable values
len:
length (-1,0,-1):
        range(num): if
                numbers[i]>numbers[i+1]:
```

```
                    value -> numbers[i] numbers[i]
                    -> numbers[i+1] numbers[i+1]
                    -> value array: sortable values
                    len:
length (-1,0,-1):max -> 0 for position in
        range(1,num+1):
                if numbers[position]>numbers[max]:
                        max -> position

        value -> numbers[num] numbers[num]
        -> numbers[max]
        numbers[max] -> value


While -> return list of numbers
        numbers -> [] end While
        num -> 0 while num !-> -1:
        num -> int(input()) if num
        !-> -1:
                        numbers.append(num)
                        end While return
        numbers

def display(numbers):
        print("The list is:") for
        num in numbers:
        print(num)
```

Test Cases

1. Read no input
2. Read short number of inputs
3. Read large number of inputs
4. Read symbols
5. Read repeated number of inputs
6. Random numbers

Trace Verification

1. Read no input
   Output: []

2. Read short number of inputs
   [5, 8, 3]

Output: [8, 5, 3]

3. Read large number of inputs
   [5, 8, 3, 1, 0, 2, 9, 7, 4, 6]
   Output: [9, 8, 7, 6, 5, 4, 3, 2, 1, 0]

4. Read symbols
   [$, #, @, !]
   Output: []

5. Read repeated number of inputs
   [9, 5, 8, 3, 1, 0, 2, 9, 7, 4, 6, 0]
   Output: [9, 9, 8, 7, 6, 5, 4, 3, 2, 1, 0, 0]

6. Random numbers
   [1, 5, 6] random
   Output: [6, 5, 1]