Kotappa Y Gandudi
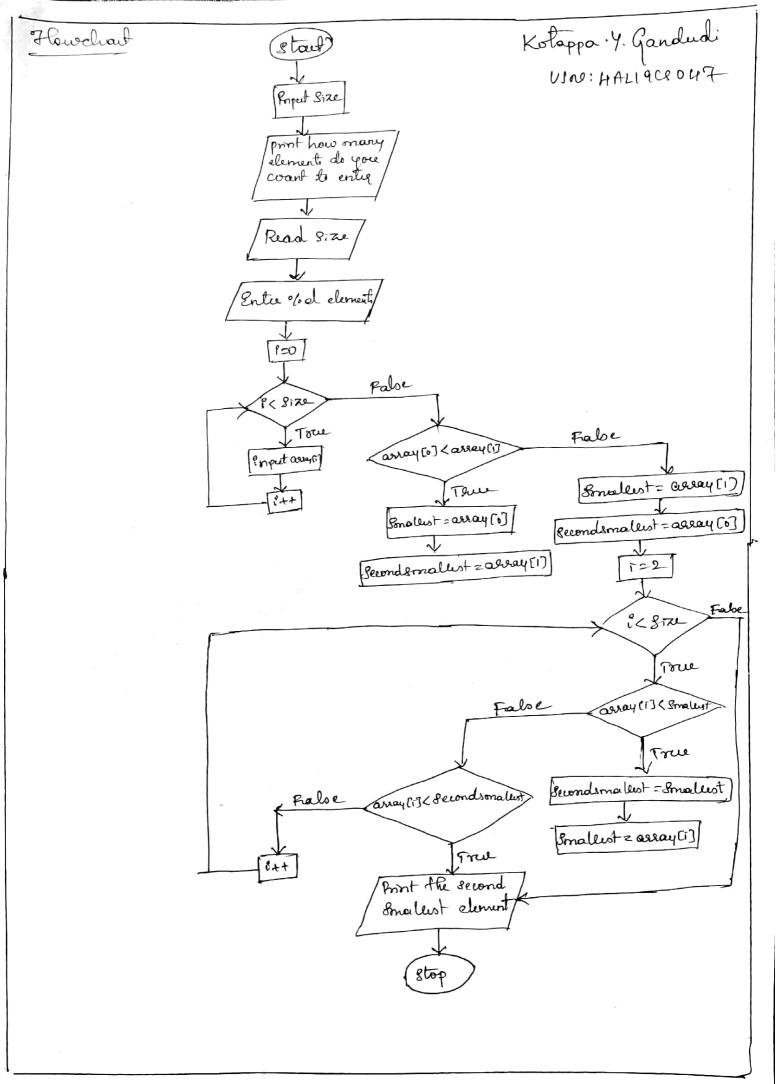USNe: HALI9CSO47
F Section
Date: 06/06/2K20.

C program to find second smallest element in an array

Algorithm

Step 1: Start

Step 2: Input size

Step 3: Display how many elements do you want to enter

Step 4: Display entire o/od elements

for (i=0; i<size; i++)

Input array[i]

Step 5: if (array [0] < array [1])

Step 5.1: Smallest = array[0]

Step 5.2: Secondsmallest = array[1]

Step 5.3: goto step10 and step 11

Step 6: else

Smallest = array [i]
Secondsmallest = array [0]
goto step 10 and step 11

Step 7: for (i=2; i< size; i++)

Step 8: if (array [i] < Smallest)

Secondsmallest = Smallest
Smallest = array[i].
goto step 10 and step 11

Step 9: else if (array [i] < Secondsmallest)

Secondsmallest = array[i]

Step 10: Print the second smallest element

Step 11: Stop

Flowchart

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start

↓

Input Size

↓

print how many
elements do you
want to entie

↓

Read Size

↓

Enter %d elements

↓

i=0

↓

i < Size ——False——→ array[0] < array[1] ——False——→ Smallest = array[1]
    │   │   ↓
  True   True   Secondsmallest = array[0]
    ↓   ↓   ↓
Input array[i]   Smallest = array[0]   i=2
    ↓   ↓   ↓
  i++   Secondsmallest = array[1]   i < Size ——False
                                                          │
                                                        True
                                                          ↓
                              array[i] < Smallest ——False
                                    │
                                  True
                                    ↓
                          Secondsmallest = Smallest
                                    ↓
                            Smallest = array[i]

array[i] < Secondsmallest ——False——→ i++
    │
  True
    ↓
Print the second
Smallest element
    ↓
stop