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Modularization Design
Sub-list Sort Design

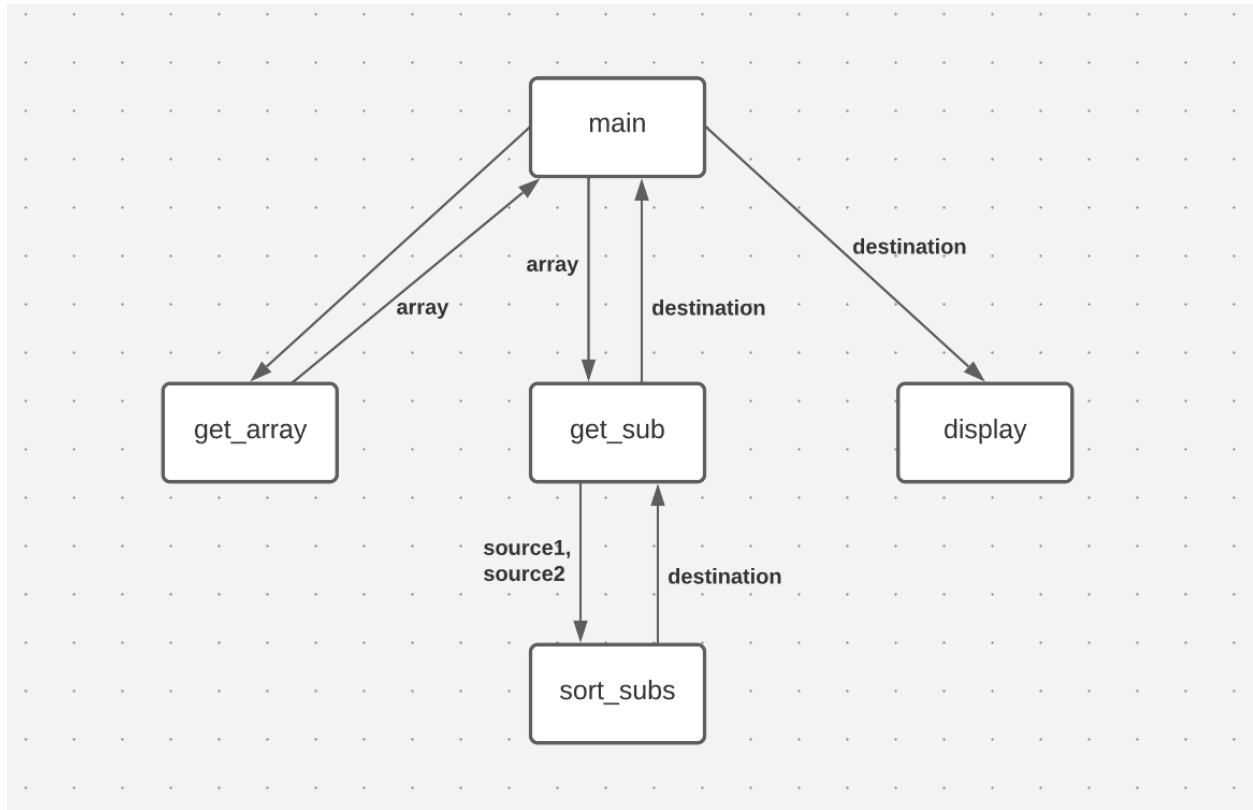## Structure Chart

Psuedocode

```
get_sub(array):
      destination = array
      found1 = False
      i_source1 = 0
      i_source2 = 0
      small = array[0]
      start = 0
      FOR index in range(len(array)):
            IF (array[index] < small AND NOT found1):
                  i_source1 = index
                  found1 = True
                  IF (index != len(array) - 1):
                        small = array[index+1]

            ELIF (array[index] < small):
                  i_source2 = index
                  IF (index != len(array) - 1):
                        small = array[index+1]
                  found1 = False
                  destination = sort_subs(source1, source2, i_source1,
i_source2)
                  start = index + 1
                  source1 = []
                  source2 = []
      RETURN destination
```

```
sort_subs(source1, source2, i_source1, i_source2):
      index_1 = 0
      index_2 = 0
      count = 0
      WHILE NOT sorted:
            IF (source1[index_1] < source2[index_2]):
                  destination[count] = source1[index_1]
                  count += 1
                  IF (index_1 + 1 != len(source1)):
                        index_1 += 1
                  ELSE:
                        FOR num in range(index_2, len(source2)):
                              destination[count] = source2[index_2]
                              count += 1
                              index_2 += 1
                              sorted = True
            ELSE:
                  destination[count] = source2[index_2]
                  count += 1
                  IF (index_2 + 1 != len(source2)):
                        index_2 += 1
                  ELSE:
                        FOR num in range(index_1, len(source1)):
                              destination[count] = source1[index_1]
                              count += 1
                              index_1 += 1
                              sorted = TRUE
      RETURN destination
```