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1  # Python program for implementation of heap Sort
2  def heapify(arr, n, i):
3      largest = i
4      l = 2 * i + 1
5      r = 2 * i + 2
6      if l < n and arr[i] < arr[l]:
7          largest = l
8      if r < n and arr[largest] < arr[r]:
9          largest = r
10     if largest != i:
11         arr[i],arr[largest] = arr[largest],arr[i] # swap
12         heapify(arr, n, largest)
13 def heapSort(arr):
14     n = len(arr)
15     for i in range(n, -1, -1):
16         heapify(arr, n, i)
17     for i in range(n-1, 0, -1):
18         arr[i], arr[0] = arr[0], arr[i] # swap
19         heapify(arr, i, 0)
20 import random
21 n=10
22 arr=[0]*(n)
23 for i in range(n):
24     arr[i]=random.randint(1,100)
25 heapSort(arr)
26 n = len(arr)
27 print ("Sorted array is")
28 for i in range(n):
29     print ("%d" %arr[i]),
30
31
```