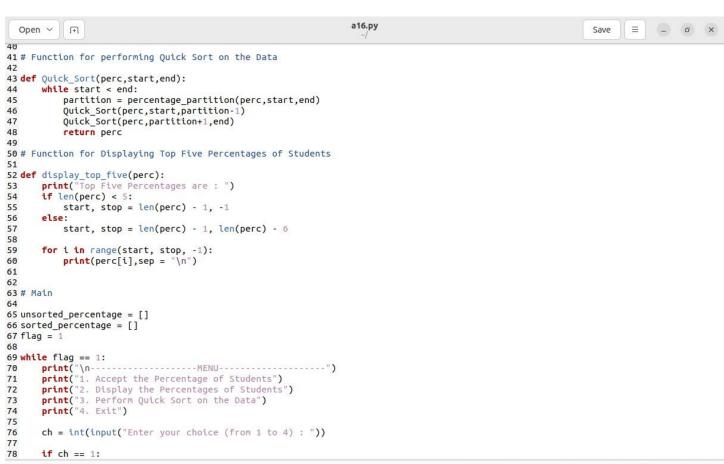
```
a16.py
                                                                                                                         \equiv
  Open Y 1
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 1 # Function for accepting the percentage of the Students
 2
 3 def input_percentage():
 4
       perc = []
       number_of_students = int(input("Enter the number of Students : "))
 5
 6
       for i in range(number_of_students):
           perc.append(float(input("Enter the percentage of Student {0} : ".format(i+1))))
 8
 9
10 # Function for printing the percentage of the Students
11
12 def print_percentage(perc):
       for i in range(len(perc)):
13
14
          print(perc[i],sep = "\n")
15
16 # Function for performing partition of the Data
17
18 def percentage_partition(perc,start,end):
19
       pivot = perc[start]
       lower_bound = start + 1
20
      upper_bound = end
21
22
      while True:
23
           while lower_bound <= upper_bound and perc[lower_bound] <= pivot:</pre>
24
25
               lower_bound += 1
26
27
           while lower_bound <= upper_bound and perc[upper_bound] >= pivot:
28
               upper_bound -= 1
29
30
           if lower_bound <= upper_bound:</pre>
31
              perc[lower_bound],perc[upper_bound] = perc[upper_bound],perc[lower_bound]
32
33
           else:
34
               break
35
36
37
      perc[start],perc[upper_bound] = perc[upper_bound],perc[start]
38
39
      return upper bound
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```



```
79
                  unsorted_percentage = input_percentage()
80
81
           elif ch == 2:
82
                  print_percentage(unsorted_percentage)
83
           elif ch == 3:
    print("Percentages of Students after performing Quick Sort : ")
    sorted_percentage = Quick_Sort(unsorted_percentage,0,len(unsorted_percentage)-1)
    print_percentage(sorted_percentage)
    a = input("Do you want to display the Top 5 Percentages of Students (yes/no) : ")
    if a == 'yes':
        ideals the five (costed percentage)
84
85
86
87
88
89
90
                         display_top_five(sorted_percentage)
91
           elif ch == 4:
    print("Thanks for using this program!!")
    flag = 0
92
93
94
95
96
                print("Invalid Choice!!")
97
                                                                                                                                                     Python 2 V Tab Width: 8 V
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```

