# #6

**SOURCE CODE:**

roll = []

def enterval():

n = int(input("Enter number of students: ")) for i in range(n):

m = float(input("Enter percentage: ")) roll.append(m)

print("Final list: ",roll) print()

def partition(a,low,high): pivot = a[high]

i = low - 1

for j in range(low,high): if (a[j] <= pivot):

i += 1

temp = a[j] a[j] = a[i] a[i] = temp

temp = a[i+1] a[i+1] = a[high] a[high] = temp return (i+1)

def quicksort(a,low,high): if (low < high):

pi = partition(a, low, high) quicksort(a, low, pi - 1) quicksort(a, pi + 1, high)

def topf(a,n): quicksort(a, 0, n-1)

k = 1

for i in range(n-1,-1,-1): if (k < 6):

print("Top %d score: "%(k),roll[i]) k += 1

print()

flag = True while (flag):

print("Choices: ")

print("1. Enter value\n2. Quick Sort\n3. Top Five Scores\n4. Exit") ch = int(input("Enter your choice: "))

if (ch == 1): enterval()

elif (ch == 2):

quicksort(roll, 0, len(roll) - 1) print("$ Quick Sort $") print("Sorted List: ",roll) print()

elif (ch == 3): topf(roll,len(roll))

elif (ch == 4): print("Thank You!!!") flag = False

else:

print("Invalid Choice") print()