import random

import time

def createnumbers():

 Numbers.clear()

 for counter in range(limit):

 Numbers.append(random.randint(0,10000))

def listnumbers():

 for x in Numbers:

 print(x)

def exchangesort():

 print("Not yet available")

 #insert sort code here

def bubblesort():

 print("Not yet available")

 #insert sort code here

def merge(first, mid, last):

 print("Not yet available")

 #insert sort code here

def mergesort(first, last):

 print("Not yet available")

 #insert sort code here

def partitionsort(lo, hi):

 print("Not yet available")

 #insert sort code here

def displaymenu():

 print("1. Generate list of numbers")

 print("2. Display list of numbers")

 print("3. Exchange sort")

 print("4. Bubble sort")

 print("5. Merge sort")

 print("6. Partition sort")

 print("7. Exit")

 print("")

Numbers = [1]

TempStore = [1]

limit = 1000

choice = 1

while choice != 7:

 displaymenu()

 choice = int(input("Enter Choice: "))

 if choice == 1:

 limit = int(input("How many numbers do you want?: "))

 createnumbers()

 if choice == 2:

 listnumbers()

 if choice == 3:

 starttime = time.time()

 exchangesort()

 endtime = time.time()

 print("The sort time was ", endtime - starttime, " seconds")

 if choice == 4:

 starttime = time.time()

 bubblesort()

 endtime = time.time()

 print("The sort time was ", endtime - starttime, " seconds")

 if choice == 5:

 starttime = time.time()

 mergesort(0,limit - 1)

 endtime = time.time()

 print("The sort time was ", endtime - starttime, " seconds")

 if choice == 6:

 starttime = time.time()

 partitionsort(0, limit -1)

 endtime = time.time()

 print("The sort time was ", endtime - starttime, " seconds")