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")