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ROLL NO:1

PROGRAM:

table,tableq={},{}

t=0

tq=0

def create(b):

table[i]=None

tableq[i]=None

def insert(key,b):

global t

hash = key%b

flag=0

if table[hash]==None:

table[hash]=key

else:

for i in range(0,b):

hash = (key+i)%b

if table[hash]==None:

table[hash]=key

t+=1

flag+=1

break

if flag == 0:

print("tHE LINEAR PROBES IS FULLED")

def qinsert(key,b):

global t1

hash = key%b

flag=0

if tableq[hash]==None:

tableq[hash]=key

else:

for i in range(0,int((b-1)/2)):

hash=(key+(i\*i))%2

if tableq[hash]==None:

tableq[hash]=key

t1+=1

flag+= 1

break

if flag==0:

print("Table full or key not probed")

def lsearch(key,b):

hash=key%b

for i in range(0,b):

hash=(key+1)%2

if table[hash]==None:

print("Key",key,"is not present")

flag+=1

break

elif table[hash]==key:

print("KEY",key,"is present at loation",hash)

flag+=1

break

def printtable(b):

print("Linearly probed table")

for i in range(b):

print(table[i],end="|")

print("Quadratically probed table")

for i in range(b):

print(table[i],end="|")

b = int(input("Enter the limit of the table"))

create(b)

while(1):

ch=int(input("1.Linear probing 2. Quadratic probing"))

if ch == 1:

while(1):

ch1=int(input("1.Insert 2.Search 3.Display "))

if ch1==1:

if t==b:

print("The table is already full")

else:

key=int(input("Enter the key to be inserted in the table "))

insert(key,b)

elif ch1==2:

key=int(input("Enter the elemnet to be searched"))

lsearch(key,b)

elif ch1==3:

printtable(b)

elif ch==2:

while(1):

ch2=int(input("1.Insert 2.Search 3.Display"))

if ch2==1:

if t1==b:

print("The table is already full")

else:

key=int(input("Enter the key to be inserted in the table"))

qinsert(key,b)

elif ch2==2:

key=int(input("Enter the element to be searched"))

qsearch(key,b)

elif ch2==3:

printtable(b)