**ASSIGNMENT 7**

**AIM:**

Insert the keys into a hash table of length m using open addressing using double hashing with h(k)=1+(k mod (m-1)).

**CODE:**

#include<iostream>

#include<stdlib.h>

using namespace std;

int size=10;

void display(int hash[])

{

int i;

cout<<"\nHASH TABLE:\n";

for(i=0;i<size;i++)

{

cout<<""<<hash[i]<<"\t";

}

}

int main()

{

int hash[size],val,i;

char ch;

for(i=0;i<size;i++)

{

hash[i]=-1;

}

do

{

cout<<"Enter the value: ";

cin>>val;

int m=val%size;

if(hash[m] == -1)

{

hash[m]=val;

display(hash);

}

else

{

cout<<"\nCollision: ";

cout<<""<<hash[m]<<"\n";

if(hash[m]%10!=m)

{

int h=hash[m];

hash[m]=val;

val=h;

}

int x=1+(val%(size-1));

for(i=1;i<size;i++)

{

int y=(val+i\*x);

int z=y%size;

if(hash[z]==-1)

{

hash[z]=val;

display(hash);

break;

}

}

}

cout<<"\n\n Want to add more values? ";

cin>>ch;

int ss=0;

for(i=0;i<size;i++)

{

if(hash[i]!= -1)

ss++;

}

if(ss==10)

{

cout<<"\n\nHast table is full";

exit(1);

}

}while(ch=='y' || ch=='Y');

display(hash);

return 0;

}

