// quadratic hashing

#include <stdio.h>

#include<stdlib.h>

#define size 10

int h[size]={NULL};

void insert()

{

int key,index,i,hkey;

printf("\nEnter a value to insert into hash table : ");

scanf("%d",&key);

hkey=key%size;

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

{

index=(hkey+i)%size;

if(h[index] == NULL)

{

h[index]=key;

break;

}

}

if(i == size)

{

printf("\nElement cannot be inserted\n");

}

}

void search()

{

int key,index,i,hkey;

printf("\nEnter search element : ");

scanf("%d",&key);

hkey=key%size;

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

{

index=(hkey+i\*i)%size;

if(h[index]==key)

{

printf("Value is found at index %d",index);

break;

}

}

if(i == size)

{

printf("\nValue is not found\n");

}

}

void display()

{

int i;

printf("\nElements in the hash table are : ");

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

{

printf("\nIndex %d, Value : %d",i,h[i]);

}

}

int main()

{

int choice;

while(1)

{

printf("\nMENU : 1 - Insert, 2 - Display, 3 - Search, 4 - Exit \n");

printf("Enter your choice : ");

scanf("%d",&choice);

switch(choice)

{

case 1:

insert();

break;

case 2:

display();

break;

case 3:

search();

break;

case 4:

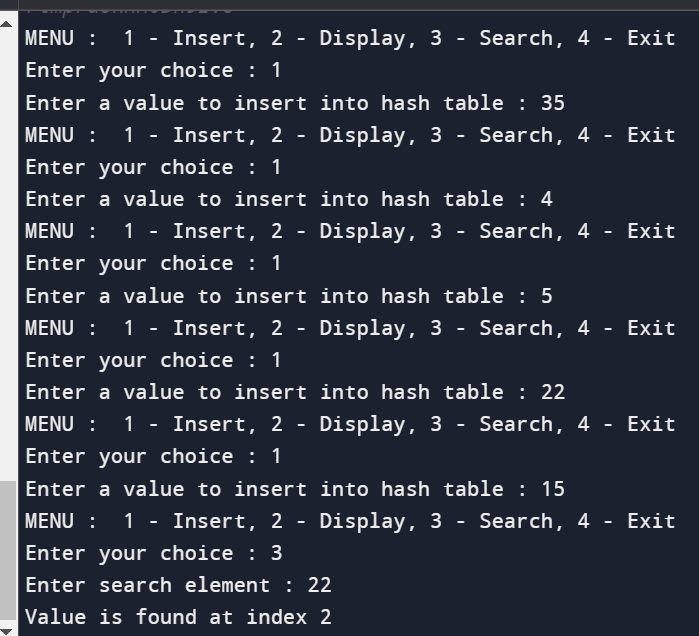
exit(0);

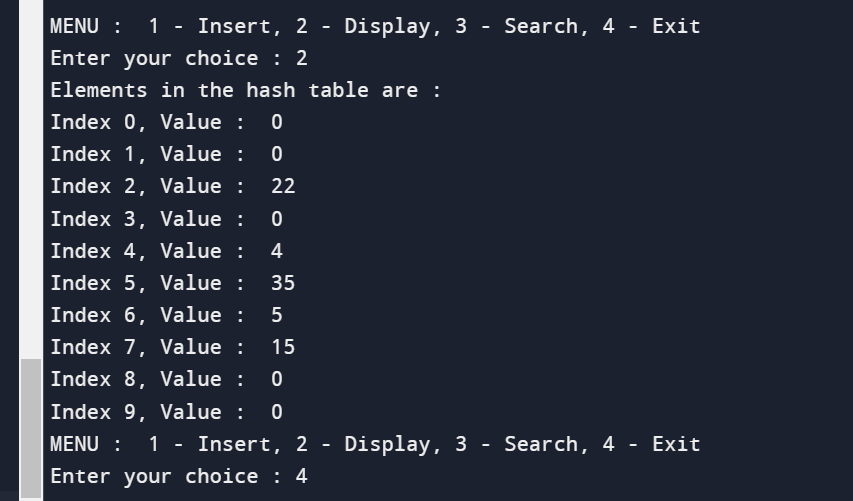
}

}

}

**OUTPUT :**

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