// program for hashing

#include<stdio.h>

#define size 9

int arr[size];

int key;

void create()

{

    int i;

    for(i=0; i<size; i++)

    arr[i]=-1;

}

void insert(int value)

{

    int key =value%7;

    if(arr[key]==-1)

    {

        arr[key]=value;

        printf("%d inserted at arr[%d]\n", value, key);

    }

    else

    {

    printf("collision : arr[%d] has element %d already!\n",key,arr[key]);

    printf("unable to insert %d\n",value);

    while(arr[key]!=-1)

    {

        key=(key+1)%10;

    }

    arr[key]=value;

    }

}

void delete(int value)

{

    int key = value %7;

    if(arr[key] == value)

        arr[key] = -1;

    else

        printf("%d not present in the hash table\n",value);

}

void search(int value)

{

    int key=value%7;

    if(arr [key]==value)

        printf("search found\n");

        else

            printf("value not found\n");

}

void print()

{

    int i;

    for (i=0; i<size; i++)

        printf("arr[%d]=%d\n",i,arr[i]);

}

int main()

{

   create();

    insert(21);

    insert(32);

    insert(10);

    insert(17);

printf("Hash table\n");

  printf("Deleting value 32..\n");

    delete(32);

    printf("After the deletion hash table\n");

    print();

    printf("\n");

   print();

    return 0;

}

/\* /\*Output:

32 inserted at arr[4]

10 inserted at arr[3]

collision : arr[3] has element 10 already!

unable to insert 17

Hash table

Deleting value 32..

After the deletion hash table

arr[0]=21

arr[1]=-1

arr[2]=-1

arr[3]=10

arr[4]=-1

arr[5]=17

arr[6]=-1

arr[7]=-1

arr[8]=-1

arr[0]=21

arr[1]=-1

arr[2]=-1

arr[3]=10

arr[4]=-1

arr[5]=17

arr[6]=-1

arr[7]=-1

arr[8]=-1

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