

```
#include<stdio.h>
```

```
#define size 7
```

```
int arr[size];
```

```
void init()  
{  
    int i;  
    for(i = 0; i < size; i++)  
        arr[i] = -1;  
}
```

```
void insert(int value)  
{  
    int key = value % size;
```

```
    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);  
    }  
}
```

```
void del(int value)  
{  
    int key = value % size;  
    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 % size;  
    if(arr[key] == value)  
        printf("Search Found\n");  
    else
```

```

printf("Search Not Found\n");
}

void print()
{
int i;
for(i = 0; i < size; i++)
printf("arr[%d] = %d\n",i,arr[i]);
}

int main()
{
init();
insert(10); //key = 10 % 7 ==> 3
insert(4); //key = 4 % 7 ==> 4
insert(2); //key = 2 % 7 ==> 2
insert(3); //key = 3 % 7 ==> 3 (collision)

printf("Hash table\n");
print();
printf("\n");

printf("Deleting value 10..\n");

del(10);
printf("After the deletion hash table\n");
print();
printf("\n");

printf("Deleting value 5..\n");
del(5);
printf("After the deletion hash table\n");
print();
printf("\n");

printf("Searching value 4..\n");
search(4);
printf("Searching value 10..\n");
search(10);

return 0;
}

```