

Start here X hashtable.c X

```
1     #include<stdio.h>
2     #define MAX 50
3
4     int hash[MAX];
5
6     void init(int m){
7         for(int i=0;i<m;i++)
8             hash[i] = -1;
9     }
10
11    void insert(int key,int m){
12        int index = key%m;
13        while(hash[index] != -1){
14            index = (index+1) % m;
15        }
16        hash[index] = key;
17        printf("key %d inserted at address %d\n",key,index);
18    }
19
20    void display(int m){
21        printf("\n Hash Table Contents: \n");
22        for(int i=0;i<m;i++){
23            if(hash[i] != -1){
24                printf("H[%d] --> %d\n",i,hash[i]);
25            }
26            else
27                printf("H[%d] --> Empty\n",i);
28        }
29    }
30
31    int main(){
32        int n,m,key;
33        printf("Enter number of employee records: ");
34        scanf("%d",&n);
35        printf("Enter size of hash table (m): ");
36        scanf("%d",&m);
37        init(m);
38        printf("Enter %d employee keys (4-digit): \n",n);
39        for(int i=0;i<n;i++){
40            scanf("%d",&key);
41            insert(key,m);
42        }
43        display(m);
44        return 0;
45    }
```

C:\Users\admin\Desktop\1BM X + ▾

```
Enter number of employee records: 4
Enter size of hash table (m): 6
Enter 4 employee keys (4-digit):
1234
key 1234 inserted at address 4
2345
key 2345 inserted at address 5
6547
key 6547 inserted at address 1
8569
key 8569 inserted at address 2
```

#### Hash Table Contents:

```
H[0] --> Empty
H[1] --> 6547
H[2] --> 8569
H[3] --> Empty
H[4] --> 1234
H[5] --> 2345
```

```
Process returned 0 (0x0) execution time : 17.496 s
```

```
Press any key to continue.
```