LAB 12 DSA

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

int key[20],n,m;
int *ht,index;
int count = 0;

void insert(int key)
{
        index = key % m;
        while(ht[index] != -1)
        {
                index = (index+1)%m;
        }
        ht[index] = key;
        count++;
 }

void display()
{
       int i;
       if(count == 0)
      {
                printf("\nHash Table is empty");
```

```
                return;
        }

        printf("\nHash Table contents are:\n ");
        for(i=0; i<m; i++)
                printf("\n T[%d] --> %d ", i, ht[i]);
}


void main()
{
        int i;
        printf("\nEnter the number of employee  records (N) :   ");
        scanf("%d", &n);

        printf("\nEnter the two digit memory locations (m) for hash table:   ");
        scanf("%d", &m);

        ht = (int *)malloc(m*sizeof(int));
        for(i=0; i<m; i++)
                ht[i] = -1;

        printf("\nEnter the four digit key values (K) for N Employee Records:\n  ");
        for(i=0; i<n; i++)
                scanf("%d", &key[i]);

        for(i=0;i<n;i++)
```

```
    {
        if(count == m)
        {
            printf("\n~~~Hash table is full. Cannot insert the record %d key~~~",i+1);
            break;
        }
        insert(key[i]);
  }

      //Displaying Keys inserted into hash table
       display();
}
```