

The screenshot shows a C programming environment with a code editor window. The file being edited is 'lab 10.c'. The code implements a hash table using linear probing. It includes functions for insertion, display, and a main function that reads input from the user.

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

```
11         hashTable[index] = key;
12     }else{
13         int i = 1;
14         while(hashTable[(index + i) % m] != -1){
15             i++;
16         }
17         hashTable[(index + i) % m] = key;
18     }
19 }
20
21 /* Function to display hash table */
22 void display(){
23     printf("\nHash Table:\n");
24     for(int i = 0; i < m; i++){
25         if(hashTable[i] != -1)
26             printf("Address %d : %d\n", i, hashTable[i]);
27         else
28             printf("Address %d : Empty\n", i);
29     }
30 }
31
32 int main(){
33     int n, key;
34     printf("Enter size of hash table (m): ");
35     scanf("%d", &m);
36     printf("Enter number of employee records: ");
37     scanf("%d", &n);
38     for(int i = 0; i < m; i++)
39         hashTable[i] = -1;
40     printf("Enter %d employee keys (4-digit):\n", n);
41     for(int i = 0; i < n; i++){
42         scanf("%d", &key);
43         insert(key);
44     }
45     display();
46     return 0;
47 }
```

Logs & others		
File	Line	Message
		==== Build file: "no target" in "no project" (compiler: unknown) ==== - - - - -

The screenshot shows a C++ IDE interface with a terminal window displaying the output of a program. The terminal window title is "C:\Users\BMSCE\Downloads\". The output text is as follows:

```
Enter size of hash table (m): 10
Enter number of employee records: 6
Enter 6 employee keys (4-digit):
1230
1247
1357
1789
1999
1555

Hash Table:
Address 0 : 1230
Address 1 : 1999
Address 2 : Empty
Address 3 : Empty
Address 4 : Empty
Address 5 : 1555
Address 6 : Empty
Address 7 : 1247
Address 8 : 1357
Address 9 : 1789

Process returned 0 (0x0)   execution time : 35.144 s
Press any key to continue.
```