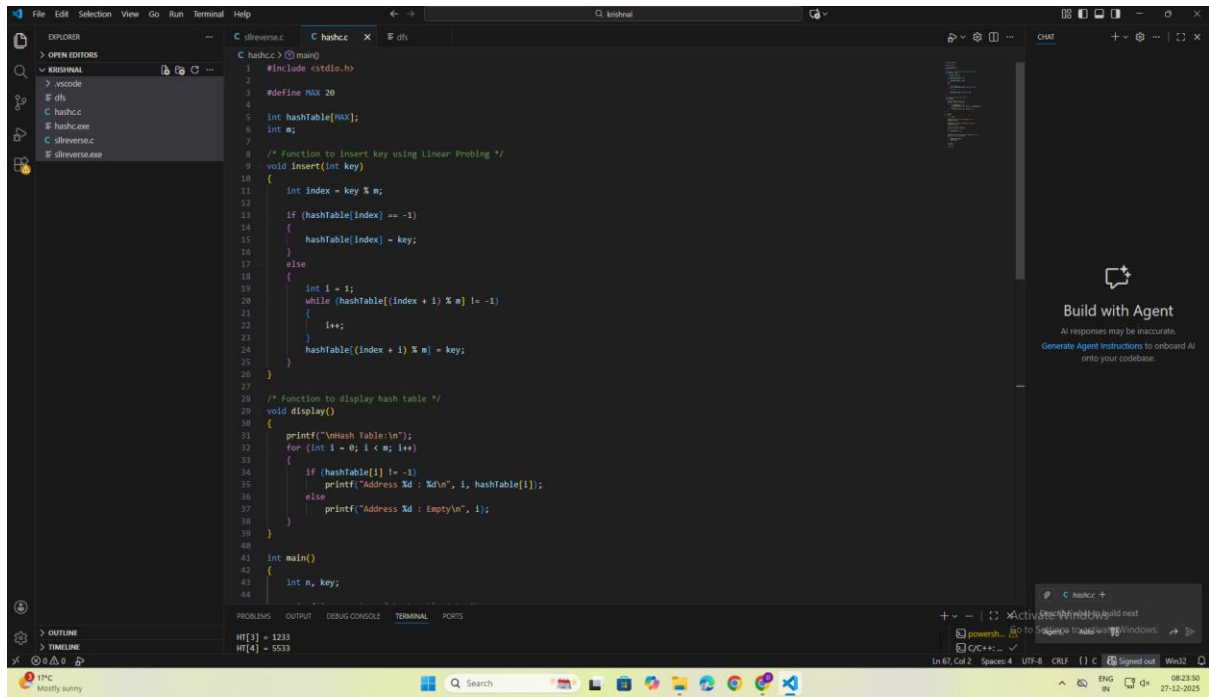


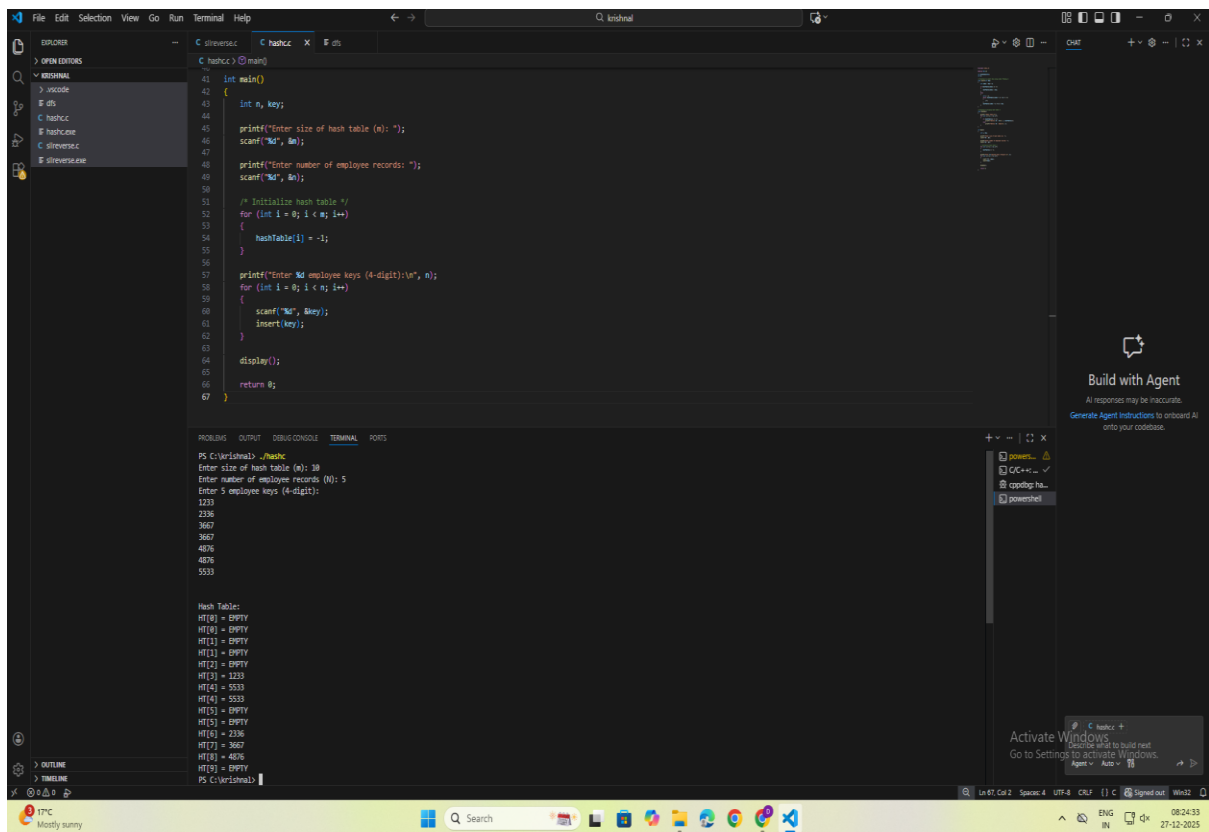
## Hash Code



```
1 #include <stdio.h>
2
3 #define MAX 20
4
5 int hashTable[MAX];
6 int m;
7
8 /* Function to insert key using Linear Probing */
9 void insert(int key)
10 {
11     int index = key % m;
12     if (hashTable[index] == -1)
13     {
14         hashTable[index] = key;
15     }
16     else
17     {
18         int i = 1;
19         while (hashTable[(index + i) % m] != -1)
20         {
21             i++;
22         }
23         hashTable[(index + i) % m] = key;
24     }
25 }
26
27 /* Function to display hash table */
28 void display()
29 {
30     printf("Hash Table\n");
31     for (int i = 0; i < m; i++)
32     {
33         if (hashTable[i] != -1)
34             printf("Address %d : %d\n", i, hashTable[i]);
35         else
36             printf("Address %d : Empty\n", i);
37     }
38 }
39
40 int main()
41 {
42     int n, key;
43 }
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS

HT[3] = 1233  
HT[4] = 5533



```
41 int main()
42 {
43     int n, key;
44
45     printf("Enter size of hash table (n): ");
46     scanf("%d", &n);
47
48     printf("Enter number of employee records: ");
49     scanf("%d", &m);
50
51     /* Initialize hash table */
52     for (int i = 0; i < m; i++)
53     {
54         hashTable[i] = -1;
55     }
56
57     printf("Enter %d employee keys (4-digit):\n", m);
58     for (int i = 0; i < m; i++)
59     {
60         scanf("%d", &key);
61         insert(key);
62     }
63
64     display();
65
66     return 0;
67 }
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS

PS C:\Visual\hashcc> .\hashcc  
Enter size of hash table (n): 10  
Enter number of employee records (N): 5  
Enter 5 employee keys (4-digit):  
1233  
2336  
3667  
4876  
5533

Hash Table:  
HT[0] = EMPTY  
HT[1] = EMPTY  
HT[2] = EMPTY  
HT[3] = 1233  
HT[4] = 5533  
HT[5] = 5533  
HT[6] = 4876  
HT[7] = 3667  
HT[8] = 2336  
HT[9] = EMPTY  
PS C:\Visual\hashcc>