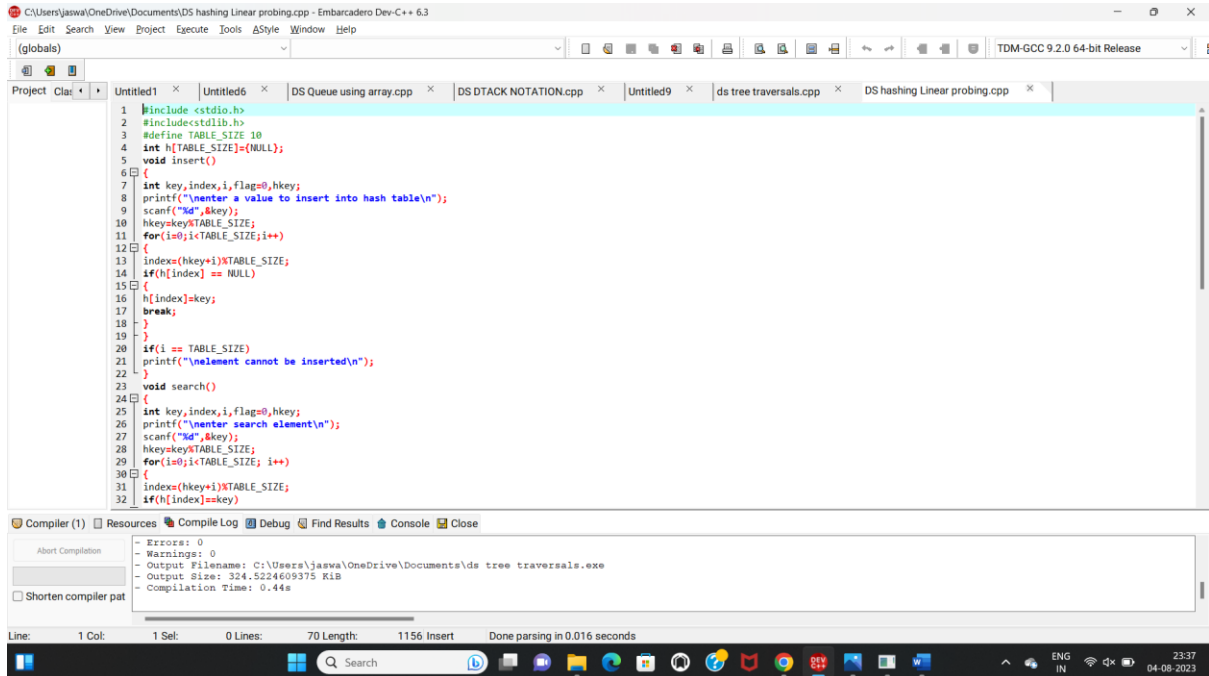


DS HASHING USING LINEAR PROBING

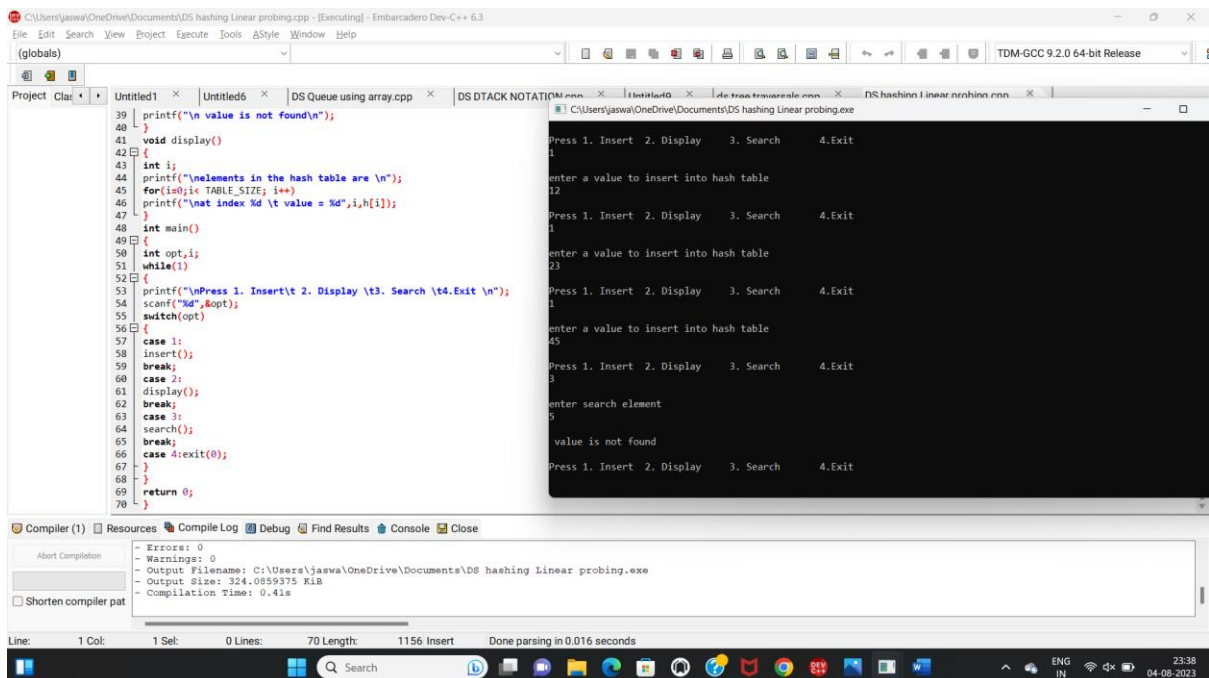


```
1 #include <stdio.h>
2 #include <stdlib.h>
3 #define TABLE_SIZE 10
4 int h[TABLE_SIZE]={NULL};
5 void insert()
6 {
7     int key,index,i,flag=0,hkey;
8     printf("\nEnter a value to insert into hash table\n");
9     scanf("%d",&key);
10    hkey=key%TABLE_SIZE;
11    for(i=0;i<TABLE_SIZE;i++)
12    {
13        index=(hkey+i)%TABLE_SIZE;
14        if(h[index] == NULL)
15        {
16            h[index]=key;
17            break;
18        }
19    }
20    if(i == TABLE_SIZE)
21        printf("\nElement cannot be inserted\n");
22    }
23 void search()
24 {
25     int key,index,i,flag=0,hkey;
26     printf("\nEnter search element\n");
27     scanf("%d",&key);
28     hkey=key%TABLE_SIZE;
29     for(i=0;i<TABLE_SIZE;i++)
30     {
31         index=(hkey+i)%TABLE_SIZE;
32         if(h[index]==key)
```

Compiler (1) Resources Compile Log Debug Find Results Console Close

Errors: 0
Warnings: 0
Output Filename: C:\Users\jaswa\OneDrive\Documents\ds tree traversals.exe
Output Size: 324.5224609375 KiB
Compilation Time: 0.44s

Line: 1 Col: 1 Sel: 0 Lines: 70 Length: 1156 Insert Done parsing in 0.016 seconds



```
39 printf("\n value is not found\n");
40 }
41 void display()
42 {
43     int i;
44     printf("\nElements in the hash table are \n");
45     for(i=0;i< TABLE_SIZE; i++)
46     printf("\nat index %d \t value = %d",i,h[i]);
47 }
48 int main()
49 {
50     int opt,i;
51     while(1)
52     {
53         printf("\nPress 1. Insert\t2. Display \t3. Search \t4.Exit \n");
54         scanf("%d",&opt);
55         switch(opt)
56         {
57             case 1:
58                 insert();
59                 break;
60             case 2:
61                 display();
62                 break;
63             case 3:
64                 search();
65                 break;
66             case 4:exit(0);
67             }
68     }
69     return 0;
70 }
```

Compiler (1) Resources Compile Log Debug Find Results Console Close

Errors: 0
Warnings: 0
Output Filename: C:\Users\jaswa\OneDrive\Documents\DS hashing Linear probing.exe
Output Size: 324.0859375 KiB
Compilation Time: 0.41s

Line: 1 Col: 1 Sel: 0 Lines: 70 Length: 1156 Insert Done parsing in 0.016 seconds

Press 1. Insert 2. Display 3. Search 4.Exit
1
Enter a value to insert into hash table
12
Press 1. Insert 2. Display 3. Search 4.Exit
1
Enter a value to insert into hash table
23
Press 1. Insert 2. Display 3. Search 4.Exit
1
Enter a value to insert into hash table
45
Press 1. Insert 2. Display 3. Search 4.Exit
3
Enter search element
5
value is not found
Press 1. Insert 2. Display 3. Search 4.Exit