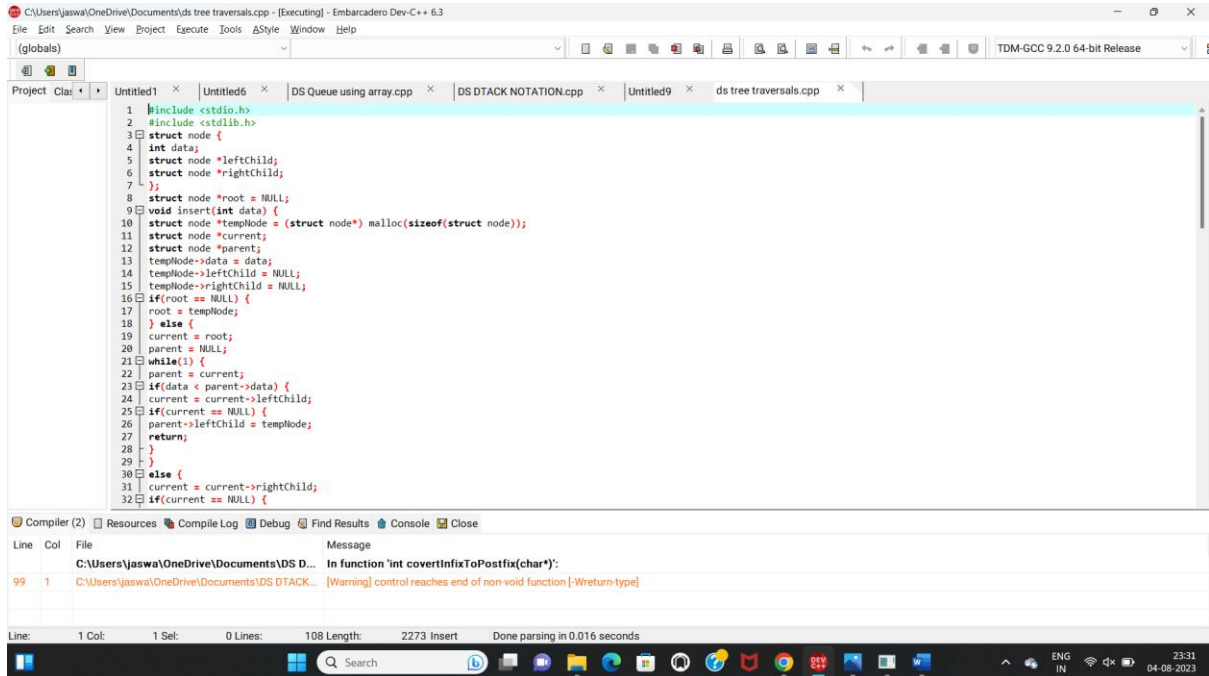


# DS Tree traversals



```
1 #include <stdio.h>
2 #include <stdlib.h>
3 struct node {
4     int data;
5     struct node *leftChild;
6     struct node *rightChild;
7 };
8 struct node *root = NULL;
9 void insert(int data) {
10     struct node *tempNode = (struct node*) malloc(sizeof(struct node));
11     struct node *parent;
12     struct node *current;
13     tempNode->data = data;
14     tempNode->leftChild = NULL;
15     tempNode->rightChild = NULL;
16     if (root == NULL) {
17         root = tempNode;
18     } else {
19         current = root;
20         parent = NULL;
21         while(1) {
22             parent = current;
23             if (data < parent->data) {
24                 current = current->leftChild;
25             } if (current == NULL) {
26                 parent->leftChild = tempNode;
27                 return;
28             }
29             else {
30                 current = current->rightChild;
31             } if (current == NULL) {
```

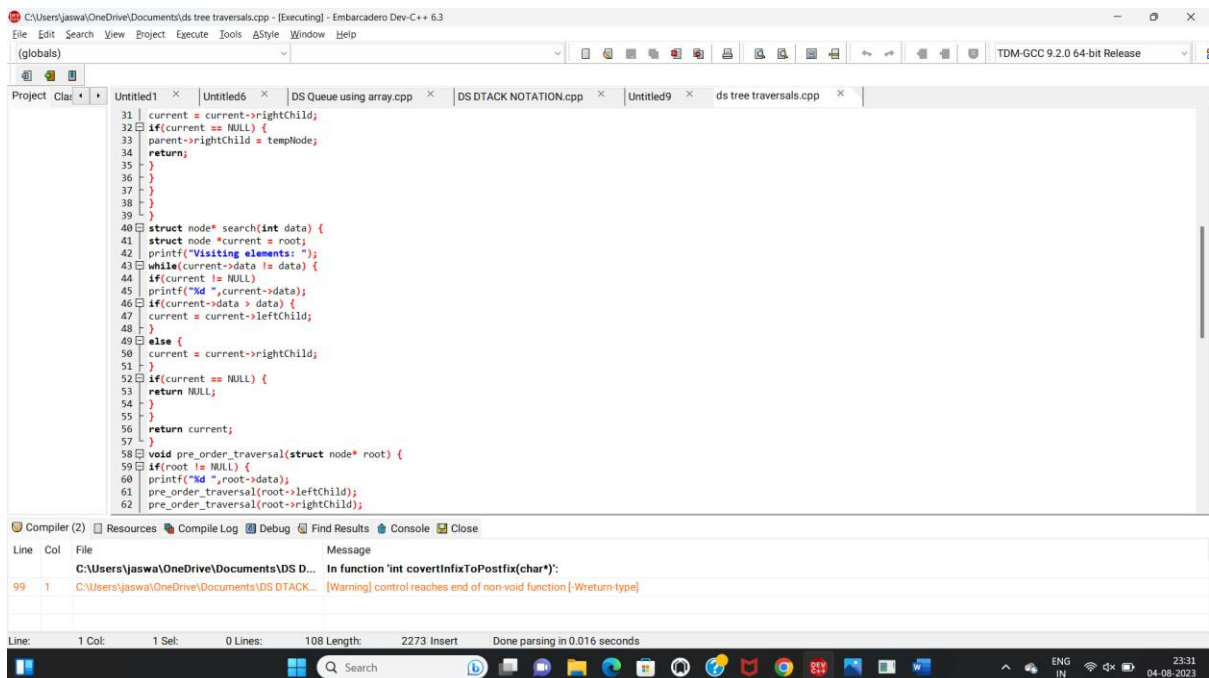
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C:\Users\jaswa\OneDrive\Documents\DS D... In function 'int covertInfixToPostfix(char\*):

99 1 C:\Users\jaswa\OneDrive\Documents\DS DTACK... [Warning] control reaches end of non-void function [-Wreturn-type]

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```
31 current = current->rightChild;
32 if (current == NULL) {
33     parent->rightChild = tempNode;
34     return;
35 }
36 }
37 }
38 }
39 }
40 struct node* search(int data) {
41     struct node *current = root;
42     printf("Visiting elements: ");
43     while (current->data != data) {
44         if (current != NULL)
45             printf("%d ", current->data);
46         if (current->data > data) {
47             current = current->leftChild;
48         }
49         else {
50             current = current->rightChild;
51         }
52     } if (current == NULL) {
53         return NULL;
54     }
55     return current;
56 }
57 void pre_order_traversal(struct node* root) {
58     if (root != NULL) {
59         printf("%d ", root->data);
60         pre_order_traversal(root->leftChild);
61         pre_order_traversal(root->rightChild);
62     }
```

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