QUESTION

Write a C program to implement the Tree Traversals (Inorder, Preorder, Postorder)

PROGRAM

main.c

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

struct Node {
    int data;
    struct Node* left;
    struct Node* right;
};

struct Node* createNode(int data) {
    struct Node* node = (struct Node*)malloc(sizeof(struct Node));
    node->data = data;
    node->left = NULL;
    node->right = NULL;
    return node;
}

void inorder(struct Node* root) {
    if (root == NULL) return;
    inorder(root->left);
    printf("%d ", root->data);
    inorder(root->right);
}

void preorder(struct Node* root) {
    if (root == NULL) return;
    printf("%d ", root->data);
    preorder(root->left);
```

```c
}
void postorder(struct Node* root) {
    if (root == NULL) return;
    postorder(root->left);
    postorder(root->right);
    printf("%d ", root->data);
}
int main() {
    struct Node* root = createNode(1);
    root->left = createNode(2);
    root->right = createNode(3);
    root->left->left = createNode(4);
    root->left->right = createNode(5);
    root->right->left = createNode(6);
    root->right->right = createNode(7);
    printf("Inorder traversal: ");
    inorder(root);
    printf("\n");
    printf("Preorder traversal: ");
    preorder(root);
    printf("\n");
    printf("Postorder traversal: ");
    postorder(root);
    printf("\n");
    return 0;
}
```

OUTPUT

Output Clear

```
Inorder traversal: 4 2 5 1 6 3 7
Preorder traversal: 1 2 4 5 3 6 7
Postorder traversal: 4 5 2 6 7 3 1


=== Code Execution Successful ===
```