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

struct node {
   int data;
   struct node *left, *right;
};

struct node* create() {
   int x;
   struct node* newnode;
   newnode = (struct node*)malloc(sizeof(struct node));

   printf("Enter data: ");
   scanf("%d", &x);

   if (x == -1) {
      return 0;
   }

   newnode->data = x;
   printf("Enter left child of %d:\n", x);
   newnode->left = create();
   printf("Enter right child of %d:\n", x);
   newnode->right = create();
```

```
    return newnode;
}

void preorder(struct node* root) {
    if (root == 0)
        return;
    printf(" %d", root->data);
    preorder(root->left);
    preorder(root->right);
}

void inorder(struct node* root) {
    if (root == 0)
        return;
    inorder(root->left);
    printf(" %d", root->data);
    inorder(root->right);
}

void postorder(struct node* root) {
    if (root == 0)
        return;
    postorder(root->left);
    postorder(root->right);
    printf(" %d", root->data);
}
```

```
int main() {
    struct node* root;
    root = create();
    printf("\nTree created successfully!\n");

    while (1) {
        int ch;
        printf("\n\nEnter your choice:\n");
        printf("1. Inorder traversal\n");
        printf("2. Preorder traversal\n");
        printf("3. Postorder traversal\n");
        printf("4. Exit\n");
        printf("Choice: ");
        scanf("%d", &ch);

        switch (ch) {
            case 1:
                printf("Inorder traversal:");
                inorder(root);
                printf("\n");
                break;
            case 2:
                printf("Preorder traversal:");
                preorder(root);
                printf("\n");
```

```
            break;
        case 3:
            printf("Postorder traversal:");
            postorder(root);
            printf("\n");
            break;
        case 4:
            printf("Exiting...\n");
            exit(0);
        default:
            printf("Invalid choice!\n");
      }
   }

   return 0;
}
```

```
C:\dsa\anuj_rawat\data.exe
Enter data: 4
Enter left child of 4:
Enter data: 5
Enter left child of 5:
Enter data: 7
Enter left child of 7:
Enter data: -1
Enter right child of 7:
Enter data: -1
Enter right child of 5:
Enter data: 8
Enter left child of 8:
Enter data: -1
Enter right child of 8:
Enter data: -1
Enter right child of 4:
Enter data: 10
Enter left child of 10:
Enter data: -1
Enter right child of 10:
Enter data: 1
Enter left child of 1:
Enter data: -1
Enter right child of 1:
Enter data: -1

Tree created successfully!


Enter your choice:
```

```
C:\dsa\anuj_rawat\data.exe

Tree created successfully!


Enter your choice:
1. Inorder traversal
2. Preorder traversal
3. Postorder traversal
4. Exit
Choice: 1
Inorder traversal: 7 5 8 4 10 1


Enter your choice:
1. Inorder traversal
2. Preorder traversal
3. Postorder traversal
4. Exit
Choice: 2
Preorder traversal: 4 5 7 8 10 1


Enter your choice:
1. Inorder traversal
2. Preorder traversal
3. Postorder traversal
4. Exit
Choice: 3
Postorder traversal: 7 8 5 1 10 4
```

```
Enter your choice:
1. Inorder traversal
2. Preorder traversal
3. Postorder traversal
4. Exit
Choice: 3
Postorder traversal: 7 8 5 1 10 4


Enter your choice:
1. Inorder traversal
2. Preorder traversal
3. Postorder traversal
4. Exit
Choice: 4
Exiting...

--------------------------------
Process exited after 53.03 seconds with return value 0
Press any key to continue . . .
```