

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

```
struct node
{
    int data;
    int struct node* left;
    struct node* right;
} * root = 1;
```

```
struct node* create()
{
    struct node* temp;
    printf("Enter the root node element ");
    temp = (struct node*) malloc (sizeof(struct node));
    scanf("%d", &temp->data);
    temp->left = temp->right = NULL;
    return temp;
}
```

```
void insert(struct node* root, struct node* temp)
{
```

```
    if (temp->data < root->data)
    {
        if (root->left == NULL)
            insert(root->left, temp);
```

```
    else
```

```
        root->left = temp;
```

```
    }
```

```
    if (temp->data > root->data)
```

```
    {
        if (root->right == NULL)
```

```
            insert(root->right, temp);
```

```
        else
```

```
            root->right = temp;
```

```
    }
```

```
}
```

```
void printPostorder(struct node* node)
{
```

```

if (node == NULL)
    return;
printPreorder (node → left);
printPostorder (node → right);
printf ("%d\t", node → data);
}

```

```

void printInorder (struct node* node)
{

```

```

    if (node == NULL)
        return;
    printInorder (node → left);
    printf ("%d\t", node → data);
    printInorder (node → right);
}

```

```

void printPreorder (struct node* node)
{

```

```

    if (node == NULL)
        return;
    printf ("%d\t", node → data);
    printPreorder (node → left);
    printPostorder (node → right);
}

```

```

int main ()
{

```

```

    int choice;
    struct choice;
    struct node* temp;
    do {

```

```

        printf ("1. Create\n2. Insert\n3. Preorder\n4. Inorder\n5. Postorder\n6. Exit");
        scanf ("%d", &choice);
        switch (choice)
        {
            case 1: root1 = create();
                    break;

```



```
case 2: printf("Enter the value to insert");
temp = (struct node*) malloc(sizeof(struct node));
scanf("%d", &temp->data);
insert(root, temp);
case break;
case 3: printPreorder(root);
break;
case 4: printInorder(root);
break;
case 5: printPostorder(root);
break;
case 6: exit(0);
break;
default: printf("Incorrect choice\n");
}
while(choice != 6);
return 0;
}
```