LAB - 10

Ajith M.S
1BM19CS010

```
#include <stdio.h>
#include <stdlib.h>
struct node
  {
   int data;
   struct node* left;
   struct node* right;
  } root1;

struct node *create()
{
   struct node * temp;
   printf ("Enter 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;
   print Postorder (node-> left);
  print Postorder (node-> right);
  printf ("%d ", node->data);
}

void printInorder (struct node* node)
{
   if (node = = NULL)
       return;
   print Inorder (node-> Left);
   printf ("%d ", node->data);
   print Inorder (node-> right);
}
```

```
void print Preorder (struct node* node)
{
    if (node = =NULL)
            return;
    printf ("%d", node ->data);
    print Preorder (node -> left);
    print Preorder (node ->right);
}

int main()
{
    int choice;
    struct node* temp;
    do
    {
        printf ("Menu")
    printf ("1. Create, 2. Insert. 3. Preorder. 4 Inorder
            5. Postorder. 6. Exit")
    printf (" Enter you choice correctly:\n");
    scanf ("%d", &choice);
    switch(choice)
    {
     Case1: root1=create();
            break;
    Case2:  print ("Enter value you want to Insert")
     temp=(struct node*) malloc (sizeof(struct node));
     scanf ("%d", & temp->data);
     insert (root1, temp);
         break.
Case 3 :  print Preorder(root1);
            break;

Case 4 :  print Inorder(root1);
              break;

Case 5 :  Print Postorder (root1);
              break;
Case 6 :  printf ("Exit" );
              break
    default :  printf("Incorrect choice!!\n");
    }
}while (choice !=6);
    return 0;
}
```