```cpp
/*.....Assignment No.5....*/
#include <iostream>
#include<stdlib.h>
using namespace std;

class node
{
public:
    int data;
    int lbit,rbit;
    node *left,*right;
};
class TBT
{
private:
    node *root,*dummy;
public:
    void create(int num);
    void insert(node *trav,node *temp);
    void preorder();
    void display();
TBT()
    {
    root=NULL;
    dummy=NULL;
    }
}*root,*dummy;

void TBT::create(int num)
{
    node *trav,*temp;
    temp=new node();
    temp->data=num;
    temp->lbit=0;
    temp->rbit=0;
    if(root==NULL)
    {
        dummy=new node;
        dummy->data=-9999;
        dummy->lbit=0;
        dummy->rbit=0;
        dummy->left=temp;
        dummy->right=dummy;
        temp->left=dummy;
        temp->right=dummy;
        root=temp;
    }
    else
    {
        trav=root;
        insert(trav,temp);
    }
}
void TBT::insert(node *trav,node *temp)
{
```

```cpp
    if(temp->data<trav->data)
    {
        if(trav->lbit==0)
        {
            temp->left=trav->left;
            temp->right=trav;
            trav->left=temp;
            trav->lbit=1;
        }
        else
        {
            insert(trav->left,temp);
        }
    }
        if(temp->data>trav->data)
        {
            if(trav->rbit==0)
            {
                temp->right=trav->right;
                temp->left=trav;
                trav->right=temp;
                trav->rbit=1;
            }
            else
            {
                insert(trav->right,temp);
            }
        }

}

void TBT::preorder()
{
        node *trav;
        trav=root;
        while(trav!=dummy)
        {
            cout<<trav->data<<endl;
            if(trav->lbit==1)
            {
                trav=trav->left;
            }
            else
            {
                while(trav->rbit==0 && trav->right!=dummy)
                {
                    trav=trav->right;
                }
                trav=trav->right;

            }
        }
}

void TBT::display()
```

```cpp
{
    int n,i,data;
    cout<<"\n Enter the number of nodes \n";
    cin>>n;
    cout<<"\n Enter the data in the Nodes \n";
    for (i=0;i<n;i++)
    {
        cin>>data;
        create(data);
    }

    cout<<"\n Preorder: \n";
    preorder();

}
int main()
{
    TBT T;
    T.display();
    return 0;
}
/* OUTPUT

 Enter the number of nodes
6

 Enter the data in the Nodes
78
43
12
89
34
85

 Preorder:
78
43
12
34
89
85
*/
```