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//=====
// latihan program Tree
// Pre-Order
// In-Order
// Post-Order
//=====

#include <stdio.h>
#include <conio.h>
#include <iostream.h>

struct Node{
    int data;
    Node *kiri;
    Node *kanan;
};

void tambah(Node **root,int databaru){
    if((*root) == NULL){
        Node *baru;
        baru = new Node;
        baru->data = databaru;
        baru->kiri = NULL;
        baru->kanan = NULL;
        (*root) = baru;
        (*root)->kiri = NULL;
        (*root)->kanan = NULL;
        printf("Data bertambah!");
    }
    else if(databaru < (*root)->data)
        tambah(&(*root)->kiri,databaru);
    else if(databaru > (*root)->data)
        tambah(&(*root)->kanan,databaru);
    else if(databaru == (*root)->data)
        printf("Data sudah ada!");
}

void preOrder(Node *root){
    if(root != NULL){
        printf("%d ",root->data);
        preOrder(root->kiri);
        preOrder(root->kanan);
    }
}

void inOrder(Node *root){
    if(root != NULL){
        inOrder(root->kiri);
        printf("%d ",root->data);
        inOrder(root->kanan);
    }
}
```

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void postOrder(Node *root){
    if(root != NULL){
        postOrder(root->kiri);
        postOrder(root->kanan);
        printf("%d ",root->data);
    }
}

void main(){
    int pil,c;
    Node *pohon,*t;
    pohon = NULL;

    do{
        clrscr();
        int data;
        cout<<"MENU\n";
        cout<<"1. Tambah\n";
        cout<<"2. Lihat pre-order\n";
        cout<<"3. Lihat in-order\n";
        cout<<"4. Lihat post-order\n";
        cout<<"5. Exit\n";
        cout<<"Pilihan : ";
        cin>>pil;
        switch(pil){
            case 1: cout<<"Data baru : ";
                    cin>>data;
                    tambah(&pohon,data);
                    break;

            case 2:
                    if(pohon!=NULL)
                        preOrder(pohon);

            else
                    cout<<"Masih kosong!";
                    break;

            case 3:
                    if(pohon!=NULL)
                        inOrder(pohon);

            else
                    cout<<"Masih kosong!";
                    break;

            case 4:
                    if(pohon!=NULL)
                        postOrder(pohon);
                    else
                        cout<<"Masih kosong!";
                        break;

            }
        getch();
    }while(pil!=5);
}

```