

Experiment B5

```
#include<iostream>
using namespace std;
struct node {

    char lable[30];
    int count;
    node *child[10];

}*root;
class Book{
public:
    Book(){
        root = NULL;
    }
    void create(){

        int chapters,sections;
        root = new node;
        cout<<"Enter the name of Book: "<<endl;
        cin>>root->lable;
        cout<<"Enter the numbers of Chapters is the Book: "<<endl;
        cin>>chapters;
        root->count = chapters;
        for(int i=0;i<chapters;i++){

            root->child[i] = new node;
            cout<<"Enter the name of the Chapter: "<<endl;
            cin>>root->child[i]->lable;
            cout<<"Enter the number of sections in the Chapter: "<<root-
>child[i]->lable<<endl;

            cin>>sections;
            root->child[i]->count = sections;
            for (int j=0;j<root->child[i]->count;j++){

                root->child[i]->child[j] = new node;
                cout<<"Enter the name of Section: "<<endl;
                cin>>root->child[i]->child[j]->lable;

            }

        }

    }
    void display(node *t){

        if(t!=NULL){
```

```

        cout<<"Book Name : "<<root->lable<<endl;
        int cha = root->count;
        for (int i=0;i<cha;i++){

            cout<<"Chapter : "<<i+1<<endl;
            cout<<i+1<<" "<<root->child[i]->lable<<endl;
            cout<<"Sections : "<<endl;
            int sec = root->child[i]->count;
            for(int j=0;j<sec;j++){

                cout<<j+1<<" "<<root->child[i]->child[j]-
>lable<<endl;

            }

        }

    };
    int main(){

        Book k;
        int ch;
        do{

            cout<<"Book Tree Creation"<<endl;
            cout<<"1.Create"<<endl;
            cout<<"2.Display"<<endl;
            cout<<"3.Quit"<<endl;
            cout<<"Enter your choice : ";
            cin>>ch;
            switch(ch)
            {
                case 1:
                    k.create();
                    break;
                case 2:
                    k.display(root);
                    break;
            }

        }while(ch!=3);

    }

```