Name: Khushal Patil Class: SE-II (R-Batch)

Roll No.: 64

## Code:

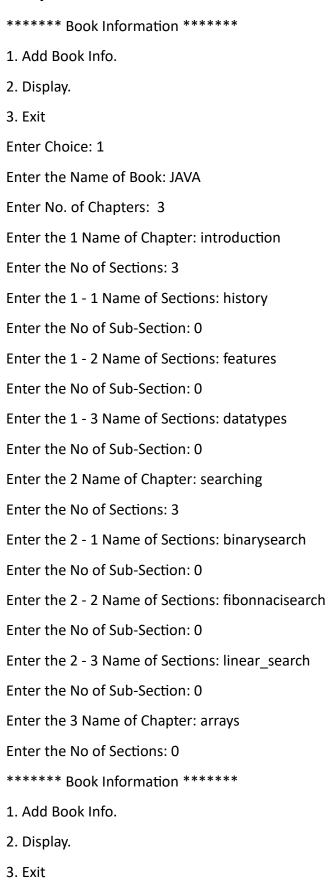
```
#include<iostream>
#include<string.h>
using namespace std;
struct node{
    string label;
    int ch_count;
    struct node* child[10];
}*root;
class GT{
    public:
        GT(){
            root = NULL;
        }
        string lbel;
        int count;
        void create(){
                 root = new node;
                 cout<<"Enter the Name of Book: ";</pre>
                 cin>>root->label;
                 cout<<"Enter No. of Chapters: ";</pre>
                 cin>>root->ch count;
                 for(int i=0;i<root->ch_count;i++){
                     root->child[i] = new node;
                     cout<<"Enter the "<< i+1 <<" Name of Chapter: ";</pre>
```

```
cin>>root->child[i]->label;
                     cout<<"Enter the No of Sections: ";</pre>
                     cin>>root->child[i]->ch count;
                     for(int j=0;j<root->child[i]->ch count;j++){
                          root->child[i]->child[j] = new node;
                          cout<<"Enter the "<< i+1 <<" - "<< j+1<< "
Name of Sections: ";
                          cin>>root->child[i]->child[j]->label;
                          cout<<"Enter the No of Sub-Section: ";</pre>
                          cin>>root->child[i]->child[j]->ch count;
                          for(int k=0;k<root->child[i]->child[j]-
>ch count;k++){
                              root->child[i]->child[j]->child[k] = new
node;
                              cout<<"Enter the "<< i+1 <<" - "<< j+1<<
" - "<< k+1<< " Name of Sub Section: ";
                              cin>>root->child[i]->child[j]->label;
                          }
                     }
                 }
        }
        void display(node * r){
                 cout<<"\nName of Book: ";</pre>
                 cout<<root->label<<endl;</pre>
                 cout<<"No. of Chapters: ";</pre>
                 cout<<root->ch count<<endl;</pre>
                 for(int i=0;i<root->ch count;i++){
                          cout<<"\n Name of Chapter: ";</pre>
                          cout<<root->child[i]->label<<endl;</pre>
                          cout<<" No of Sections: ";</pre>
                          cout<<root->child[i]->ch count<<endl;</pre>
                          for(int j=0;j<root->child[i]->ch_count;j++){
                              cout<<"\t\t"<< i+1 <<" - "<< j+1<< "
Name of Sections: ";
                              cout<<root->child[i]->child[j]-
>label<<endl;</pre>
                              cout<<"\t\tNo of Sub-Section: ";</pre>
                              cout<<root->child[i]->child[j]-
>ch_count<<endl;
```

```
for(int k=0;k<root->child[i]->child[j]-
>ch_count;k++){
                                    cout<<"\t\t\t"<< i+1 <<" - "<< j+1<<
" - "<< k+1<< " Name of Sub Section: ";
                                    cout<<root->child[i]->child[j]-
>label<<endl;</pre>
                               }
                           }
             }
         }
};
int main(){
    GT g;
    while(1){
         cout<<"****** Book Information *******"<<endl;</pre>
         cout<<"1. Add Book Info."<<endl;</pre>
         cout<<"2. Display."<<endl;</pre>
         cout<<"3. Exit"<<endl;</pre>
         cout<<"Enter Choice: ";</pre>
         int ch;
         cin>>ch;
         switch(ch){
             case 1:
                  g.create();
                  break;
             case 2:
                  g.display(root);
                  break;
             case 3:
                  exit(0);
                  break;
             default:
                  cout<<"Invalid Choice....";</pre>
                  break;
         }
    }
}
```

## **Output:**

Enter Choice: 2



Name of Book: JAVA

No. of Chapters: 3

Name of Chapter: introduction

No of Sections: 3

1 - 1 Name of Sections: history

No of Sub-Section: 0

1 - 2 Name of Sections: features

No of Sub-Section: 0

1 - 3 Name of Sections: datatypes

No of Sub-Section: 0

Name of Chapter: searching

No of Sections: 3

2 - 1 Name of Sections: binarysearch

No of Sub-Section: 0

2 - 2 Name of Sections: fibonnacisearch

No of Sub-Section: 0

2 - 3 Name of Sections: linear\_search

No of Sub-Section: 0

Name of Chapter: arrays

No of Sections: 0

\*\*\*\*\*\* Book Information \*\*\*\*\*\*

- 1. Add Book Info.
- 2. Display.
- 3. Exit

Enter Choice: 3

Thank You...