

struct actor

```
{
  char first [20];
  char last [40];
}
```



struct movie

```
{
  char title [130];
  char review [500];
  star actor stars [10];
  int num-stars;
}
```

};

hierarchical structures

```
int main()
{
    welcome(); ← Explaining Program
    Manager ();
    termination();
    return 0;
}
```

```

void manager ( ) char response ;
{
    int choice ;
    movie database [100] ;
    int num_movies = 0 ;
do
{

```

num\_movies

```

    displaymenu ( ) ;
    choice = users choice ( ) ;
    performaction ( choice, database, response ) ;
    cout << " Do you want to do this again " ;
    if ( response == 'y' )
        response = yesno ( ) ;
    } while ( response == 'y' ) ;

```

```

{

```

// class interface

Subway  
Students

class library

{ public:

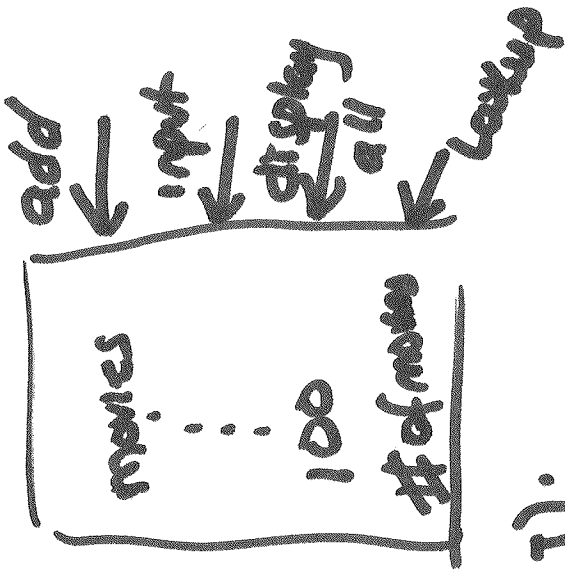
library();

int input();  
 int displayall();  
 int lookup(char title[]);  
 int lookup(actor & star);  
 int add(movie & movie);

private:

database [100];

movie num-movies;



int success  
 ↑  
 not zero

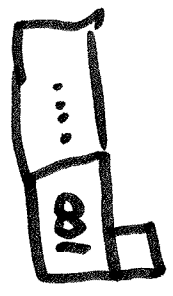
};

movies.cpp

#include ~~main~~

void manager ( )

library movies ;



{  
int choice ; ← int error;  
char response ;

do  
{

displaymenu ( ) ;

choice = userchoice ( ) ;  
switch ( choice )

{ case 1: movies . input ( ) ;

break ;  
case 2: movies . displayall ( ) ;  
break ;

or

if ( ! movies . input ( ) )  
cout << " sorry ..... " ;

error = movies . input ( ) ;

Library.cpp

"library.h"

#include

100

↓  
(MAX) return P;

```
int Library::input()  
int i = num-movies;
```

← num-movies;

```
int i = "please enter title";  
cout << "please enter title, 131);
```

```
{
```

```
cin.get (database[i].title);
```

← a movie



```
cin.ignore (100, '\n');  
cout << " please enter the review, 50);
```

```
cin.get (database[i].review, 50);  
cin.ignore (100, '\n');
```

```
cout << " please enter first name of actor:";  
cin.get (database[i].stars[0].first,  
21);
```

cin.ignore (100, '\n');

while ( cin.get() != '\n' )

Null Body

...

++ num-movies;

return num-movies;

}



```
int Library::displayall()
{
    for (int i = 0; i < num-movies; ++i)
    {
        cout << database[i].title
              << endl;
    }
    return num-movies;
}
```

library.cpp

movies.cpp

g++