**Library Management in Function**

#include<stdio.h>

#include<string.h>

struct library

{

int id,price;

char name[10],author[10];

}lib[3],temp;

int i,j,choice,flag=0,index,count=0,sid,sprice,max,mn,mx;

char C,sname[10],sauthor[10];

void find\_count();

void count\_id();

void count\_name();

void count\_price();

void count\_author();

void display();

void display\_id();

void display\_name();

void display\_price();

void display\_author();

void update();

void update\_id();

void update\_name();

void update\_price();

void update\_author();

void delete1();

void delete1\_id();

void delete1\_name();

void delete1\_price();

void delete1\_author();

void insert();

void insert\_id();

void insert\_name();

void insert\_price();

void insert\_author();

void sort();

void sort\_id();

void sort\_price();

void heighest\_price();

void mn\_to\_mx\_price();

int main()

{

for(i=0;i<3;i++)

{

printf("\nEnter book id name price and auther name:\n");

scanf("%d",&lib[i].id);

\_flushall();

gets(lib[i].name);

\_flushall();

scanf("%d",&lib[i].price);

\_flushall();

gets(lib[i].author);

}

printf("\nlibrary is\n");

printf("id name price author");

for(i=0;i<3;i++)

{

printf("\n%d %s %d %s" ,lib[i].id,lib[i].name,lib[i].price,lib[i].author);

}

do{

printf("\nchoice\n1.find count library\n2.display library\n3.update library\n4.delete library\n5.insert library\n6.sort\n7.highest price book\n8.min to max price books");

printf("\nEnter choice:");

scanf("%d",&choice);

switch(choice)

{

case 1:

{

find\_count();

}

break;

case 2:

{

display();

}

break;

case 3:

{

update();

}

break;

case 4:

{

delete1();

}

break;

case 5:

{

insert();

}

break;

case 6:

{

sort();

}

break;

case 7:

{

heighest\_price();

}

break;

case 8:

{

mn\_to\_mx\_price();

}

break;

default :

printf("\nInvalid choice");

break;

}

printf("\ndo you want to cantinue switch say 1 (yes=1/no=0):");

scanf("%d",&C);

}while(C==1);

return 0;

}

void find\_count()

{

int c;

int count=0;

do{

printf("\nchoice\n1.count to id\n2.count to name\n3.count to price\n4.count to author");

printf("\nEnter choice:");

scanf("%d",&choice);

switch(choice)

{

case 1:

{

count\_id();

}

break;

case 2:

{

count\_name();

}

break;

case 3:

{

count\_price();

}

break;

case 4:

{

count\_author();

}

break;

default :

printf("\nInvalid choice");

break;

}

printf("\ndo you want to cantinue update say (yes=1/no=0)");

scanf("%d",&c);

}while(c==1);

}

void count\_id()

{

printf("\nEnter id to find:");

scanf("%d",&sid);

printf("\nRecord is");

for(i=0;i<3;i++)

{

if(lib[i].id==sid)

{

count++;

printf("\n%d %s %d %s" ,lib[i].id,lib[i].name,lib[i].price,lib[i].author);

}

}

printf("\ncount of id %d in library is %d\n",sid,count);

}

void count\_name()

{

printf("\nEnter name to find:");

scanf("%s",&sname);

printf("\nRecord is");

for(i=0;i<3;i++)

{

if(strcmp(lib[i].name,sname)==0)

{

count++;

printf("\n%d %s %d %s" ,lib[i].id,lib[i].name,lib[i].price,lib[i].author);

}

}

printf("\ncount of name %s in library is %d\n",sname,count);

}

void count\_price()

{

printf("\nEnter price to find:");

scanf("%d",&sprice);

printf("\nRecord is");

for(i=0;i<3;i++)

{

if(lib[i].id==sid)

{

count++;

printf("\n%d %s %d %s" ,lib[i].id,lib[i].name,lib[i].price,lib[i].author);

}

}

printf("\ncount of price %d in library is %d\n",sprice,count);

}

void count\_author()

{

printf("\nEnter author to find:");

scanf("%s",&sauthor);

printf("\nRecord is");

for(i=0;i<3;i++)

{

if(strcmp(lib[i].author,sauthor)==0)

{

count++;

printf("\n%d %s %d %s" ,lib[i].id,lib[i].name,lib[i].price,lib[i].author);

}

}

printf("\ncount of author %s in library is %d\n",sauthor,count);

}

void display()

{

int D;

do{

printf("\nchoice\n1.display to id\n2.display to name\n3.display to price\n4.display to author");

printf("\nEnter choice:");

scanf("%d",&choice);

switch(choice)

{

case 1:

{

display\_id();

}

break;

case 2:

{

display\_name();

}

break;

case 3:

{

display\_price();

}

break;

case 4:

{

display\_author();

}

break;

default :

printf("\nInvalid choice");

break;

}

printf("\ndo you want to cantinue update say 2\n");

scanf("%d",&D);

}while(D==2);

}

void display\_id()

{

printf("\nEnter id to find:");

scanf("%d",&sid);

printf("\nRecord is");

for(i=0;i<3;i++)

{

if(lib[i].id==sid)

{

flag=1;

printf("\n%d %s %d %s" ,lib[i].id,lib[i].name,lib[i].price,lib[i].author);

}

}

}

void display\_name()

{

printf("\nEnter name to find:");

scanf("%s",&sname);

printf("\nRecord is");

for(i=0;i<3;i++)

{

if(strcmp(lib[i].name,sname)==0)

{

flag=1;

printf("\n%d %s %d %s" ,lib[i].id,lib[i].name,lib[i].price,lib[i].author);

}

}

}

void display();

{

printf("\nEnter price to find:");

scanf("%d",&sprice);

printf("\nRecord is");

for(i=0;i<3;i++)

{

if(lib[i].price==sprice)

{

flag=1;

printf("\n%d %s %d %s" ,lib[i].id,lib[i].name,lib[i].price,lib[i].author);

}

}

}

void display\_author();

{

printf("\nEnter author to find:");

scanf("%s",&sauthor);

printf("\nRecord is");

for(i=0;i<3;i++)

{

if(strcmp(lib[i].author,sauthor)==0)

{

flag=1;

printf("\n%d %s %d %s" ,lib[i].id,lib[i].name,lib[i].price,lib[i].author);

}

}

}

void update()

{

int u;

do{

printf("\nchoice\n1.update to id\n2.update to name\n3.update to price\n4.update to author");

printf("\nEnter choice:");

scanf("%d",&choice);

switch(choice)

{

case 1:

{

update\_id();

}

break;

case 2:

{

update\_name();

}

break;

case 3:

{

update\_price();

}

break;

case 4:

{

}

break;

default :

printf("\nInvalid choice");

break;

}

printf("\ndo you want to cantinue update say(yes=3/no=0)");

scanf("%d",&u);

}while(u==3);

}

void update\_id()

{

printf("\n\nEnter id to find:");

scanf("%d",&sid);

for(i=0;i<3;i++)

{

if(lib[i].id==sid)

{

flag=1;

index=i;

printf("\n%d %s %d %s" ,lib[i].id,lib[i].name,lib[i].price,lib[i].author);

printf("\nEnter new values to index %d:\n",index);

scanf("%d",&lib[index].id);

\_flushall();

gets(lib[index].name);

\_flushall();

scanf("%d",&lib[index].price);

\_flushall();

gets(lib[index].author);

}

}

printf("\nnew library is\n");

printf("id name price author");

for(i=0;i<3;i++)

{

printf("\n%d %s %d %s" ,lib[i].id,lib[i].name,lib[i].price,lib[i].author);

}

}

void update\_name()

{

printf("\n\nEnter name to find:");

scanf("%s",&sname);

for(i=0;i<3;i++)

{

if(strcmp(lib[i].name,sname)==0)

{

flag=1;

index=i;

printf("\n%d %s %d %s" ,lib[i].id,lib[i].name,lib[i].price,lib[i].author);

printf("\nEnter new values to index %d:\n",index);

scanf("%d",&lib[index].id);

\_flushall();

gets(lib[index].name);

\_flushall();

scanf("%d",&lib[index].price);

\_flushall();

gets(lib[index].author);

}

}

printf("\nnew library is\n");

printf("id name price author");

for(i=0;i<3;i++)

{

printf("\n%d %s %d %s" ,lib[i].id,lib[i].name,lib[i].price,lib[i].author);

}

}

void update\_price()

{

printf("\n\nEnter price to find:");

scanf("%d",&sprice);

for(i=0;i<3;i++)

{

if(lib[i].price==sprice)

{

flag=1;

index=i;

printf("\n%d %s %d %s" ,lib[i].id,lib[i].name,lib[i].price,lib[i].author);

printf("\nEnter new values to index %d:\n",index);

scanf("%d",&lib[index].id);

\_flushall();

gets(lib[index].name);

\_flushall();

scanf("%d",&lib[index].price);

\_flushall();

gets(lib[index].author);

}

}

printf("\nnew library is\n");

printf("id name price author");

for(i=0;i<3;i++)

{

printf("\n%d %s %d %s" ,lib[i].id,lib[i].name,lib[i].price,lib[i].author);

}

}

void update\_author()

{

printf("\n\nEnter author to find:");

scanf("%s",&sauthor);

for(i=0;i<3;i++)

{

if(strcmp(lib[i].author,sauthor)==0)

{

flag=1;

index=i;

printf("\n%d %s %d %s" ,lib[i].id,lib[i].name,lib[i].price,lib[i].author);

printf("\nEnter new values to index %d:\n",index);

scanf("%d",&lib[index].id);

\_flushall();

gets(lib[index].name);

\_flushall();

scanf("%d",&lib[index].price);

\_flushall();

gets(lib[index].author);

}

}

printf("\nnew library is\n");

printf("id name price author");

for(i=0;i<3;i++)

{

printf("\n%d %s %d %s" ,lib[i].id,lib[i].name,lib[i].price,lib[i].author);

}

}

void delete1()

{

int d;

do{

printf("\nchoice\n1.delete to id\n2.delete to name\n3.delete to price\n4.delete to author");

printf("\nEnter choice:");

scanf("%d",&choice);

switch(choice)

{

case 1:

{

delete1\_id();

}

break;

case 2:

{

delete1\_name();

}

break;

case 3:

{

delete1\_price();

}

break;

case 4:

{

delete1\_author();

}

break;

default :

printf("\nInvalid choice");

break;

}

printf("\ndo you want to cantinue update say (yes=4/no=0):");

scanf("%d",&d);

}while(d==4);

}

void delete1\_id()

{

printf("\nEnter id to find book:\n");

scanf("%d",&sid);

for(i=0;i<3;i++)

{

if(lib[i].id==sid)

{

for(j=i;j<3;j++)

{

lib[j]=lib[j+1];

}

count++;

}

}

printf("\nnew library is\n");

printf("id name price author");

for(i=0;i<3-count;i++)

{

printf("\n%d %s %d %s" ,lib[i].id,lib[i].name,lib[i].price,lib[i].author);

}

}

void delete1\_name()

{

printf("\nEnter name to find book:\n");

scanf("%s",&sname);

for(i=0;i<3;i++)

{

if(strcmp(lib[i].name,sname)==0)

{

for(j=i;j<3;j++)

{

lib[j]=lib[j+1];

}

count++;

}

}

printf("\nnew library is\n");

printf("id name price author");

for(i=0;i<3-count;i++)

{

printf("\n%d %s %d %s" ,lib[i].id,lib[i].name,lib[i].price,lib[i].author);

}

}

void delete1\_price()

{

printf("\nEnter price to find book:\n");

scanf("%d",&sprice);

for(i=0;i<3;i++)

{

if(lib[i].price==sprice)

{

for(j=i;j<3;j++)

{

lib[j]=lib[j+1];

}

count++;

}

}

printf("\nnew library is\n");

printf("id name price author");

for(i=0;i<3-count;i++)

{

printf("\n%d %s %d %s" ,lib[i].id,lib[i].name,lib[i].price,lib[i].author);

}

}

void delete1\_author()

{

printf("\nEnter author to find book:\n");

scanf("%s",&sauthor);

for(i=0;i<3;i++)

{

if(strcmp(lib[i].author,sauthor)==0)

{

for(j=i;j<3;j++)

{

lib[j]=lib[j+1];

}

count++;

}

}

printf("\nnew library is\n");

printf("id name price author");

for(i=0;i<3-count;i++)

{

printf("\n%d %s %d %s" ,lib[i].id,lib[i].name,lib[i].price,lib[i].author);

}

}

void insert()

{

int I;

do{

printf("\nchoice\n1.insert to id\n2.insert to name\n3.insert to price\n4.insert to author");

printf("\nEnter choice:");

scanf("%d",&choice);

switch(choice)

{

case 1:

{

insert\_id();

}

break;

case 2:

{

insert\_name();

}

break;

case 3:

{

insret\_price();

}

break;

case 4:

{

insert\_author();

}

break;

default :

printf("\nInvalid choice");

break;

}

printf("\ndo you want to cantinue update say (yes=5/no=0)");

scanf("%d",&I);

}while(I==5);

}

void insert\_id()

{

printf("\nEnter id to want to index:\n");

scanf("%d",&sid);

for(i=0;i<3;i++)

{

if(lib[i].id==sid)

{

i=index;

}

}

for(i=3;i>index;i--)

{

lib[i]=lib[i-1];

}

printf("insert id name price and auther to index %d\n",index);

scanf("%d",&lib[index].id);

\_flushall();

gets(lib[index].name);

\_flushall();

scanf("%d",&lib[index].price);

\_flushall();

gets(lib[index].author);

printf("\nnew library is\n");

printf("id name price author");

for(i=0;i<4;i++)

{

printf("\n%d %s %d %s" ,lib[i].id,lib[i].name,lib[i].price,lib[i].author);

}

}

void insert\_name()

{

printf("\nEnter name to want to index:\n");

scanf("%s",&sname);

for(i=0;i<3;i++)

{

if(strcmp(lib[i].name,sname)==0)

{

i=index;

}

}

for(i=3;i>index;i--)

{

lib[i]=lib[i-1];

}

printf("insert id name price and auther to index %d\n",index);

scanf("%d",&lib[index].id);

\_flushall();

gets(lib[index].name);

\_flushall();

scanf("%d",&lib[index].price);

\_flushall();

gets(lib[index].author);

printf("\nnew library is\n");

printf("id name price author");

for(i=0;i<4;i++)

{

printf("\n%d %s %d %s" ,lib[i].id,lib[i].name,lib[i].price,lib[i].author);

}

}

void insert\_price()

{

printf("\nEnter price to want to index:\n");

scanf("%d",&sprice);

for(i=0;i<3;i++)

{

if(lib[i].price==sprice)

{

i=index;

}

}

for(i=3;i>index;i--)

{

lib[i]=lib[i-1];

}

printf("insert id name price and auther to index %d\n",index);

scanf("%d",&lib[index].id);

\_flushall();

gets(lib[index].name);

\_flushall();

scanf("%d",&lib[index].price);

\_flushall();

gets(lib[index].author);

printf("\nnew library is\n");

printf("id name price author");

for(i=0;i<4;i++)

{

printf("\n%d %s %d %s" ,lib[i].id,lib[i].name,lib[i].price,lib[i].author);

}

}

void insert\_author()

{

printf("\nEnter author to want to index:\n");

scanf("%s",&sauthor);

for(i=0;i<3;i++)

{

if(strcmp(lib[i].author,sauthor)==0)

{

i=index;

}

}

for(i=3;i>index;i--)

{

lib[i]=lib[i-1];

}

printf("insert id name price and auther to index %d\n",index);

scanf("%d",&lib[index].id);

\_flushall();

gets(lib[index].name);

\_flushall();

scanf("%d",&lib[index].price);

\_flushall();

gets(lib[index].author);

printf("\nnew library is\n");

printf("id name price author");

for(i=0;i<4;i++)

{

printf("\n%d %s %d %s" ,lib[i].id,lib[i].name,lib[i].price,lib[i].author);

}

}

void sort()

{

int s;

do{

printf("\nchoice\n1.sort to id\n2.sort to price\n");

printf("\nEnter choice:");

scanf("%d",&choice);

switch(choice)

{

case 1:

{

sort\_id();

}

break;

case 2:

{

sort\_price();

}

break;

default :

printf("\nInvalid choice");

break;

}

printf("\ndo you want to cantinue update say (yes=6/no=0)\n");

scanf("%d",&s);

}while(s==6);

}

void sort\_id()

{

printf("\n\nArrange book in asending order to the id:");

for(i=0;i<3;i++)

{

for(j=i;j<3;j++)

{

if(lib[i].id>lib[j].id)

{

temp=lib[i];

lib[i]=lib[j];

lib[j]=temp;

}

}

}

printf("\nnew library is\n");

printf("id name price author");

for(i=0;i<3;i++)

{

printf("\n%d %s %d %s" ,lib[i].id,lib[i].name,lib[i].price,lib[i].author);

}

}

void sort\_price()

{

printf("\n\nArrange book in asending order to the price:");

for(i=0;i<3;i++)

{

for(j=i;j<3;j++)

{

if(lib[i].price>lib[j].price)

{

temp=lib[i];

lib[i]=lib[j];

lib[j]=temp;

}

}

}

printf("\nnew library is\n");

printf("id name price author");

for(i=0;i<3;i++)

{

printf("\n%d %s %d %s" ,lib[i].id,lib[i].name,lib[i].price,lib[i].author);

}

}

void heighest\_price()

{

printf("\n\nArrange book in ascending order to the id:");

max=lib[0].price;

for(i=0;i<3;i++)

{

if(max<lib[i].price)

{

max=lib[i].price;

index=i;

}

}

printf("\nnew heighest price book is\n");

printf("id name price author");

printf("\n%d %s %d %s",lib[index].id,lib[index].name,lib[index].price,lib[index].author);

}

void mn\_to\_mx\_price()

{

printf("\n\nEnter minimum price and maximum price to find all books:");

scanf("%d %d",&mn,&mx);

printf("min=%d max=%d",mn,mx);

for(i=0;i<3;i++)

{

if(mn<=lib[i].price && mx>=lib[i].price )

{

printf("\n%d %s %d %s" ,lib[i].id,lib[i].name,lib[i].price,lib[i].author);

}

}

}

**Output**:

Enter book id name price and auther name:

1

b1

10

a

Enter book id name price and auther name:

2

b2

20

b

Enter book id name price and auther name:

3

b3

30

c

library is

id name price author

1 b1 10 a

2 b2 20 b

3 b3 30 c

choice

1.count library

2.display library

3.update library

4.delete library

5.insert library

6.sort

7.highest price book

8.min to max price books

Enter choice:1

choice

1.count to id

2.count to name

3.count to price

4.count to author

Enter choice:1

Enter id to find:2

Record is

2 b2 20 b

count of id 2 in library is 1

do you want to cantinue update say (yes=1/no=0)1

choice

1.count to id

2.count to name

3.count to price

4.count to author

Enter choice:2

Enter name to find:3

Record is

count of name 3 in library is 1

do you want to cantinue update say (yes=1/no=0)0

do you want to cantinue switch say 1 (yes=1/no=0):1

choice

1.count library

2.display library

3.update library

4.delete library

5.insert library

6.sort

7.highest price book

8.min to max price books

Enter choice:2

choice

1.display to id

2.display to name

3.display to price

4.display to author

Enter choice:2

Enter name to find:b2

Record is

2 b2 20 b

do you want to cantinue update say 2

2

choice

1.display to id

2.display to name

3.display to price

4.display to author

Enter choice:1

Enter id to find:4

Record is

do you want to cantinue update say 2

1

do you want to cantinue switch say 1 (yes=1/no=0):1

choice

1.count library

2.display library

3.update library

4.delete library

5.insert library

6.sort

7.highest price book

8.min to max price books

Enter choice:3

choice

1.update to id

2.update to name

3.update to price

4.update to author

Enter choice:3

Enter price to find:20

2 b2 20 b

Enter new values to index 1:

5

b5

50

e

new library is

id name price author

1 b1 10 a

5 b5 50 e

3 b3 30 c

0 8

8 Af@ 0

do you want to cantinue update say(yes=3/no=0)3

choice

1.update to id

2.update to name

3.update to price

4.update to author

Enter choice:2

Enter name to find:b5

5 b5 50 e

Enter new values to index 1:

2

b2

20

b

new library is

id name price author

1 b1 10 a

2 b2 20 b

3 b3 30 c

do you want to cantinue update say(yes=3/no=0)1

do you want to cantinue switch say 1 (yes=1/no=0):1

choice

1.count library

2.display library

3.update library

4.delete library

5.insert library

6.sort

7.highest price book

8.min to max price books

Enter choice:4

choice

1.delete to id

2.delete to name

3.delete to price

4.delete to author

Enter choice:1

Enter id to find book:

1

new library is

id name price author

2 b2 20 b

3 b3 30 c

do you want to cantinue update say (yes=4/no=0):1

do you want to cantinue switch say 1 (yes=1/no=0):1

choice

1.count library

2.display library

3.update library

4.delete library

5.insert library

6.sort

7.highest price book

8.min to max price books

Enter choice:5

choice

1.insert to id

2.insert to name

3.insert to price

4.insert to author

Enter choice:1

Enter id to want to index:

2

insert id name price and auther to index 1

1

b1

10

a

new library is

id name price author

2 b2 20 b

1 b1 10 a

3 b3 30 c

0 8

do you want to cantinue update say (yes=5/no=0)5

choice

1.insert to id

2.insert to name

3.insert to price

4.insert to author

Enter choice:1

Enter id to want to index:

2

insert id name price and auther to index 1

4

b4

40

d

new library is

id name price author

2 b2 20 b

4 b4 40 d

1 b1 10 a

3 b3 30 c

do you want to cantinue update say (yes=5/no=0)1

do you want to cantinue switch say 1 (yes=1/no=0):1

choice

1.count library

2.display library

3.update library

4.delete library

5.insert library

6.sort

7.highest price book

8.min to max price books

Enter choice:6

choice

1.sort to id

2.sort to price

Enter choice:1

Arrange book in asending order to the id:

new library is

id name price author

1 b1 10 a

2 b2 20 b

4 b4 40 d

do you want to cantinue update say (yes=6/no=0)

1

do you want to cantinue switch say 1 (yes=1/no=0):1

choice

1.count library

2.display library

3.update library

4.delete library

5.insert library

6.sort

7.highest price book

8.min to max price books

Enter choice:7

Arrange book in ascending order to the id:

new heighest price book is

id name price author

4 b4 40 d

do you want to cantinue switch say 1 (yes=1/no=0):1

choice

1.count library

2.display library

3.update library

4.delete library

5.insert library

6.sort

7.highest price book

8.min to max price books

Enter choice:8

Enter minimum price and maximum price to find all books:15

35

min=15 max=35

2 b2 20 b

do you want to cantinue switch say 1 (yes=1/no=0):(yes=1/no=0)