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SEM:- 1ST
CLASS:- A
BRANCH:- CS
ROLL NO.:- CS42
INSTITUTE:- ICT GANPAT UNIVERSITY
SUBJECT :- ESFP

CODES:-

```
#include<windows.h>
#include<stdio.h>
#include<conio.h>
#include <stdlib.h>
#include<string.h>           //contains strcmp(),strcpy(),strlen(),etc
#include<ctype.h>            //contains toupper(), tolower(),etc
#include<dos.h>              //contains _dos_getdate
#include<time.h>

#define RETURNTIME 15

char
catagories[][15]={"Computer","Electronics","Electrical","Civil","Mechnnical","Architecture"};
void returnfunc(void);
void mainmenu(void);
void addbooks(void);
void deletebooks(void);
void editbooks(void);
void searchbooks(void);
void issuebooks(void);
void viewbooks(void);
void closeapplication(void);
int getdata();
int checkid(int);
int t(void);
//void show_mouse(void);
void Password();
void issuerecord();
void loaderanim();

//list of global files that can be acceed form anywhere in program
FILE *fp,*ft,*fs;

COORD coord = {0, 0};
//list of global variable
```

```

int s;
char findbook;
char password[10]={"1234"};

void gotoxy (int x, int y)
{
    coord.X = x; coord.Y = y; // X and Y coordinates
    SetConsoleCursorPosition(GetStdHandle(STD_OUTPUT_HANDLE), coord);
}

struct meroDate
{
    int mm,dd,yy;
};
struct books
{
    int id;
    char stname[20];
    char name[20];
    char Author[20];
    int quantity;
    float Price;
    int count;
    int rackno;
    char *cat;
    struct meroDate issued;
    struct meroDate duedate;
};
struct books a;
int main()
{
    Password();
    getch();
    return 0;
}

void mainmenu()
{
    //loaderanim();
    system("cls");
    // textbackground(13);
    int i;
    gotoxy(20,3);
    printf("\xB2\xB2\xB2\xB2\xB2\xB2\xB2\xB2\xB2\xB2\xB2\xB2\xB2\xB2 MAIN MENU
\xB2\xB2\xB2\xB2\xB2\xB2\xB2\xB2\xB2\xB2\xB2\xB2\xB2\xB2");
    // show_mouse();
    gotoxy(20,5);
    printf("\xDB\xDB\xDB\xDB\xB2 1. Add Books ");
    gotoxy(20,7);
    printf("\xDB\xDB\xDB\xDB\xB2 2. Delete books");
    gotoxy(20,9);

```

[illegible]

[illegible]

```

mainmenu() ;
system("cls");
fp=fopen("Bibek.dat","ab+");
if(getdata()==1)
{
a.cat=catagories[s-1];
fseek(fp,0,SEEK_END);
fwrite(&a,sizeof(a),1,fp);
fclose(fp);
gotoxy(21,14);
printf("The record is sucessfully saved");
gotoxy(21,15);
printf("Save any more?(Y / N):");
if(getch()=='n')
mainmenu();
else
system("cls");
addbooks();
}
}
void deletebooks() //function that delete items from file fp
{
system("cls");
int d;
char another='y';
while(another=='y') //infinite loop
{
system("cls");
gotoxy(10,5);
printf("Enter the Book ID to delete:");
scanf("%d",&d);
fp=fopen("Bibek.dat","rb+");
rewind(fp);
while(fread(&a,sizeof(a),1,fp)==1)
{
if(a.id==d)
{

gotoxy(10,7);
printf("The book record is available");
gotoxy(10,8);
printf("Book name is %s",a.name);
gotoxy(10,9);
printf("Rack No. is %d",a.rackno);
findbook='t';
}
}
if(findbook!='t')
{
gotoxy(10,10);
printf("No record is found modify the search");
}
}

```

```

if(getch())
mainmenu();
}
if(findbook=='t' )
{
gotoxy(10,9);
printf("Do you want to delete it?(Y/N):");
if(getch()=='y')
{
ft=fopen("test.dat","wb+"); //temporary file for delete
rewind(fp);
while(fread(&a,sizeof(a),1,fp)==1)
{
if(a.id!=d)
{
fseek(ft,0,SEEK_CUR);
fwrite(&a,sizeof(a),1,ft); //write all in tempory file except that
} //we want to delete
}
fclose(ft);
fclose(fp);
remove("Bibek.dat");
rename("test.dat","Bibek.dat"); //copy all item from temporary file to fp except that
fp=fopen("Bibek.dat","rb+"); //we want to delete
if(findbook=='t')
{
gotoxy(10,10);
printf("The record is sucessfully deleted");
gotoxy(10,11);
printf("Delete another record?(Y/N)");
}
}
else
mainmenu();
fflush(stdin);
another=getch();
}
}
gotoxy(10,15);
mainmenu();
}
void searchbooks()
{
system("cls");
int d;
printf("*****Search
Books*****");
gotoxy(20,10);
printf("\xDB\xDB\xDB\xB2 1. Search By ID");
gotoxy(20,14);
printf("\xDB\xDB\xDB\xB2 2. Search By Name");

```

[illegible]

[illegible]


```

}
if(d==0)
{
gotoxy(20,8);
printf("\xB2\xB2\xB2\xB2\xB2\xB2\xB2\xB2\xB2\xB2\xB2\xB2\xB2\xB2\xB2\xB2\xB2\xB2");
gotoxy(20,9);printf("\xB2"); gotoxy(38,9);printf("\xB2");
gotoxy(20,10);
printf("\xB2\xB2\xB2\xB2\xB2\xB2\xB2\xB2\xB2\xB2\xB2\xB2\xB2\xB2\xB2\xB2\xB2\xB2");
gotoxy(22,9);printf("\aNo Record Found");
}
gotoxy(20,17);
printf("Try another search?(Y/N)");
if(getch()=='y')
searchbooks();
else
mainmenu();
break;
}
default :
getch();
searchbooks();
}
fclose(fp);
}

void issuebooks(void) //function that issue books from library
{
int t;

system("cls");
printf("*****ISSUE SECTION*****");
gotoxy(10,5);
printf("\xDB\xDB\xDB\xDb\xB2 1. Issue a Book");
gotoxy(10,7);
printf("\xDB\xDB\xDB\xDb\xB2 2. View Issued Book");
gotoxy(10,9);
printf("\xDB\xDB\xDB\xDb\xB2 3. Search Issued Book");
gotoxy(10,11);
printf("\xDB\xDB\xDB\xDb\xB2 4. Remove Issued Book");
gotoxy(10,14);
printf("Enter a Choice:");
switch(getch())
{
case '1': //issue book
{
system("cls");
int c=0;
char another='y';
while(another=='y')

```

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{
system("cls");
gotoxy(15,4);
printf("***Issue Book section***");
gotoxy(10,6);
printf("Enter the Book Id:");
scanf("%d",&t);
fp=fopen("Bibek.dat","rb");
fs=fopen("Issue.dat","ab+");
if(checkid(t)==0) //issues those which are present in library
{
gotoxy(10,8);
printf("The book record is available");
gotoxy(10,9);
printf("There are %d unissued books in library ",a.quantity);
gotoxy(10,10);
printf("The name of book is %s",a.name);
gotoxy(10,11);
printf("Enter student name:");
scanf("%s",a.stname);
//struct dosdate_t d; //for current date
//_dos_getdate(&d);
//a.issued.dd=d.day;
//a.issued.mm=d.month;
//a.issued.yy=d.year;
gotoxy(10,12);
printf("Issued date=%d-%d-%d",a.issued.dd,a.issued.mm,a.issued.yy);
gotoxy(10,13);
printf("The BOOK of ID %d is issued",a.id);
a.duedate.dd=a.issued.dd+RETURNTIME; //for return date
a.duedate.mm=a.issued.mm;
a.duedate.yy=a.issued.yy;
if(a.duedate.dd>30)
{
a.duedate.mm+=a.duedate.dd/30;
a.duedate.dd-=30;
}
if(a.duedate.mm>12)
{
a.duedate.yy+=a.duedate.mm/12;
a.duedate.mm-=12;
}
gotoxy(10,14);
printf("To be return:%d-%d-%d",a.duedate.dd,a.duedate.mm,a.duedate.yy);
fseek(fs,sizeof(a),SEEK_END);
fwrite(&a,sizeof(a),1,fs);
fclose(fs);
c=1;
}

```

```

if(c==0)
{
gotoxy(10,11);
printf("No record found");
}
gotoxy(10,15);
printf("Issue any more(Y/N):");
fflush(stdin);
another=getche();
fclose(fp);
}

break;
}
case '2': //show issued book list
{
system("cls");
int j=4;
printf("*****Issued book
list*****\n");
gotoxy(2,2);
printf("STUDENT NAME  CATEGORY  ID  BOOK NAME  ISSUED DATE  RETURN DATE");
fs=fopen("Issue.dat","rb");
while(fread(&a,sizeof(a),1,fs)==1)
{

gotoxy(2,j);
printf("%s",a.stname);
gotoxy(18,j);
printf("%s",a.cat);
gotoxy(30,j);
printf("%d",a.id);
gotoxy(36,j);
printf("%s",a.name);
gotoxy(51,j);
printf("%d-%d-%d",a.issued.dd,a.issued.mm,a.issued.yy );
gotoxy(65,j);
printf("%d-%d-%d",a.duedate.dd,a.duedate.mm,a.duedate.yy);
//struct dosdate_t d;
//_dos_getdate(&d);
gotoxy(50,25);
// printf("Current date=%d-%d-%d",d.day,d.month,d.year);
j++;

}
fclose(fs);
gotoxy(1,25);
returnfunc();
}
break;
case '3': //search issued books by id

```

```

{
system("cls");
gotoxy(10,6);
printf("Enter Book ID:");
int p,c=0;
char another='y';
while(another=='y')
{

scanf("%d",&p);
fs=fopen("Issue.dat","rb");
while(fread(&a,sizeof(a),1,fs)==1)
{
if(a.id==p)
{
issuerecord();
gotoxy(10,12);
printf("Press any key.....");
getch();
issuerecord();
c=1;
}

}
fflush(stdin);
fclose(fs);
if(c==0)
{
gotoxy(10,8);
printf("No Record Found");
}
gotoxy(10,13);
printf("Try Another Search?(Y/N)");
another=getch();
}
}
break;
case '4': //remove issued books from list
{
system("cls");
int b;
FILE *fg; //declaration of temporary file for delete
char another='y';
while(another=='y')
{
gotoxy(10,5);
printf("Enter book id to remove:");
scanf("%d",&b);
fs=fopen("Issue.dat","rb+");
while(fread(&a,sizeof(a),1,fs)==1)
{

```

```

if(a.id==b)
{
issuerecord();
findbook='t';
}
if(findbook=='t')
{
gotoxy(10,12);
printf("Do You Want to Remove it?(Y/N)");
if(getch()=='y')
{
fg=fopen("record.dat","wb+");
rewind(fs);
while(fread(&a,sizeof(a),1,fs)==1)
{
if(a.id!=b)
{
fseek(fs,0,SEEK_CUR);
fwrite(&a,sizeof(a),1,fg);
}
}
fclose(fs);
fclose(fg);
remove("Issue.dat");
rename("record.dat","Issue.dat");
gotoxy(10,14);
printf("The issued book is removed from list");

}

}
if(findbook!='t')
{
gotoxy(10,15);
printf("No Record Found");
}
}
gotoxy(10,16);
printf("Delete any more?(Y/N)");
another=getch();
}
}
default:
gotoxy(10,18);
printf("\aWrong Entry!!");
getch();
issuebooks();
break;
}
gotoxy(1,30);
returnfunc();

```

```

}
void viewbooks(void) //show the list of book persists in library
{
int i=0,j;
system("cls");
gotoxy(1,1);
printf("*****Book
List*****");
gotoxy(2,2);
printf(" CATEGORY   ID   BOOK NAME   AUTHOR   QTY   PRICE   RackNo ");
j=4;
fp=fopen("Bibek.dat","rb");
while(fread(&a,sizeof(a),1,fp)==1)
{
gotoxy(3,j);
printf("%s",a.cat);
gotoxy(16,j);
printf("%d",a.id);
gotoxy(22,j);
printf("%s",a.name);
gotoxy(36,j);
printf("%s",a.Author);
gotoxy(50,j);
printf("%d",a.quantity);
gotoxy(57,j);
printf("%.2f",a.Price);
gotoxy(69,j);
printf("%d",a.rackno);
printf("\n\n");
j++;
i=i+a.quantity;
}
gotoxy(3,25);
printf("Total Books =%d",i);
fclose(fp);
gotoxy(35,25);
returnfunc();
}
void editbooks(void) //edit information about book
{
system("cls");
int c=0;
int d,e;
gotoxy(20,4);
printf("*****Edit Books Section*****");
char another='y';
while(another=='y')
{
system("cls");
gotoxy(15,6);
printf("Enter Book Id to be edited:");

```

```

scanf("%d",&d);
fp=fopen("Bibek.dat","rb+");
while(fread(&a,sizeof(a),1,fp)==1)
{
if(checkid(d)==0)
{
gotoxy(15,7);
printf("The book is availble");
gotoxy(15,8);
printf("The Book ID:%d",a.id);
gotoxy(15,9);
printf("Enter new name:");scanf("%s",a.name);
gotoxy(15,10);
printf("Enter new Author:");scanf("%s",a.Author);
gotoxy(15,11);
printf("Enter new quantity:");scanf("%d",&a.quantity);
gotoxy(15,12);
printf("Enter new price:");scanf("%f",&a.Price);
gotoxy(15,13);
printf("Enter new rackno:");scanf("%d",&a.rackno);
gotoxy(15,14);
printf("The record is modified");
fseek(fp,ftell(fp)-sizeof(a),0);
fwrite(&a,sizeof(a),1,fp);
fclose(fp);
c=1;
}
if(c==0)
{
gotoxy(15,9);
printf("No record found");
}
}
gotoxy(15,16);
printf("Modify another Record?(Y/N)");
fflush(stdin);
another=getch() ;
}
returnfunc();
}
void returnfunc(void)
{
{
printf(" Press ENTER to return to main menu");
}
}
a:
if(getch()==13) //allow only use of enter
mainmenu();
else
goto a;
}

```

[illegible]


```

scanf("%f",&a.Price);
gotoxy(21,11);
printf("Rack No:");gotoxy(30,11);
scanf("%d",&a.rackno);
return 1;
}
int checkid(int t) //check whether the book is exist in library or not
{
rewind(fp);
while(fread(&a,sizeof(a),1,fp)==1)
if(a.id==t)
return 0; //returns 0 if book exists
return 1; //return 1 if it not
}
int t(void) //for time
{
time_t t;
time(&t);
printf("Date and time:%s\n",ctime(&t));

return 0 ;
}
/*void show_mouse(void) //show inactive mouse pointer in programme
{
union REGS in,out;
in.x.ax = 0x1;
int86(0x33,&in,&out);
}*/
void Password(void) //for password option
{

system("cls");
char d[25]="Password Protected";
char ch,pass[10];
int i=0,j;
//textbackground(WHITE);
//textcolor(RED);
gotoxy(10,4);
for(j=0;j<20;j++)
{
Sleep(50);
printf("*");
}
for(j=0;j<20;j++)
{
Sleep(50);
printf("%c",d[j]);
}
for(j=0;j<20;j++)
{
Sleep(50);

```

```

printf("*");
}
gotoxy(10,10);
gotoxy(15,7);
printf("Enter Password:");

while(ch!=13)
{
ch=getch();

if(ch!=13 && ch!=8){
putch('*');
pass[i] = ch;
i++;
}
}
pass[i] = '\0';
if(strcmp(pass,password)==0)
{

gotoxy(15,9);
//textcolor(BLINK);
printf("Password match");
gotoxy(17,10);
printf("Press any key to countinue.....");
getch();
mainmenu();
}
else
{
gotoxy(15,16);
printf("\aWarning!! Incorrect Password");
getch();
Password();
}
}

void issuerecord() //display issued book's information
{
system("cls");
gotoxy(10,8);
printf("The Book has taken by Mr. %s",a.stname);
gotoxy(10,9);
printf("Issued Date:%d-%d-%d",a.issued.dd,a.issued.mm,a.issued.yy);
gotoxy(10,10);
printf("Returning Date:%d-%d-%d",a.duedate.dd,a.duedate.mm,a.duedate.yy);
}

/*void loaderanim()
{
int loader;
system("cls");
gotoxy(20,10);

```

```
printf("LOADING.....");  
printf("\n\n");  
gotoxy(22,11);  
for(loader=1;loader<20;loader++)  
{  
Sleep(100);printf("%c",219);}  
}*/  
//End of program
```