"LIBRARY MANAGEMENT" IN C PROGRAMMING

List of function and their discription are:- **void mainmenu(void);**

This function is used to display main menu of project.

void returnfunc(void);

To return back to main menu .Inside this function mainmenu function is called when user press enter key.

void addbooks(void);

To add books in a file. **void deletebooks(void);**

To detete books from file.

void editbooks(void); void searchbooks(void); void issuebooks(void); void viewbooks(void);

All above four function does according to their name.

int getdata();

This function is used to take required data input from user **int checkid(int);**

This function check Id of book entered by user does exist in file or not.

void Password();

This function asked user to input password but this function doesn't give service to change password .We can't change password ,it is fixed and password is "pokhara".

Using like this function is not good so don't use in your project.

void issuerecord();

This function is used to keep record of student for whom book is issued.

void loaderanim(); **void gotoxy (int x, int y)**

This is most important function used to print text in any place of screen of our programme .We can use this function directly in turbo c but it doesn't work in code::block so we write code for this.

Below I have given code for **gotoxy in code::block**.

COORD coord = {0, 0}; // sets coordinates to 0,0 global variable void gotoxy (int x, int y)

{

    coord.X = x; coord.Y = y; // X and Y coordinates

    SetConsoleCursorPosition(GetStdHandle(STD_OUTPUT_HANDLE), coord);

}

delay(unsigned int mseconds);

This function is used to delay our execution.This function works directly in turbo c but in code block we have to write code .

Source code for delay function in code::block is given below.

```
void delay(unsigned int mseconds)
{     clock_t goal = mseconds +
clock();     while (goal > clock());

}
```

Instead of delay function you can use Sleep(int milisecond) function directly in code::block.It takes time in milisecode as argument to delay programme execution.

Source Code

```
//list of header files
```

```
1.
2.  #include <windows.h>
3.  #include<stdio.h>                      //contains printf,scanf etc
4.  #include<conio.h>                      //contains delay(),getch(),gotoxy(),etc.
5.  #include <stdlib.h>
6.  #include<string.h>                     //contains strcmp(),strcpy(),strlen(),etc
7.  #include<ctype.h>                      //contains toupper(), tolower(),etc
8.  #include<dos.h>                        //contains _dos_getdate
9.  #include<time.h>
10. //#include<bios.h>                       //contains   show_mouse();
11.
12. #define RETURNTIME 15
13.
14. //list of function prototype
15. char catagories[][15]={"Computer","Electronics","Electrical","Civil","Mechnnical","
    Architecture"};
16. void returnfunc(void);
17. void mainmenu(void);
18. void addbooks(void);
19. void deletebooks(void);    20. void editbooks(void);
21. void searchbooks(void);
22. void issuebooks(void);
23. void viewbooks(void);
24. void closeapplication(void);
25. int  getdata();
26. int  checkid(int);
27. int t(void);
28. //void show_mouse(void);
29. void Password();
30. void issuerecord();    31. void loaderanim();
32.
33.         COORD coord = {0, 0}; // sets coordinates to 0,0
34.         //COORD max_buffer_size = GetLargestConsoleWindowSize(hOut);
35.         COORD max_res,cursor_size;
36.         void gotoxy (int x, int y)
37.         {
38.         coord.X = x; coord.Y = y; // X and Y coordinates
39.         SetConsoleCursorPosition(GetStdHandle(STD_OUTPUT_HANDLE), coord);    40. }
41.     void delay(unsigned int mseconds)
42.     {
43.     clock_t goal = mseconds + clock();
44.     while (goal > clock());
45.     }
46.     //list of global files that can be acceed form anywhere in program    47. FILE
        *fp,*ft,*fs;
48.
49. //list of global variable
```

```c
50. int s;
51. char findbook;
52. char password[10]={"pokhara"};
53.
54.
55. struct meroDate
56. {
57.     int mm,dd,yy;
58. };
59. struct books
60. {
61.     int id;
62.     char stname[20];
63.     char name[20];
64.     char Author[20];
65.     int quantity;
66.     float Price;
67.     int count;
68.     int rackno;
69.     char *cat;
70.     struct meroDate issued;
71.     struct meroDate duedate;
72. };
73. struct books a;
74. int main()
75.
76. {
77.     Password();
78.     getch();
79.   return 0;
80.
81. }
82. void mainmenu()
83. {
84.     //loaderanim();
85.     system("cls");
86.     //   textbackground(13);
87.     int i;
88.     gotoxy(20,3);
89.     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");
90.     //show_mouse();
91.     gotoxy(20,5);
92.     printf("\xDB\xDB\xDB\xDB\xB2 1. Add Books    ");
93.     gotoxy(20,7);
94.     printf("\xDB\xDB\xDB\xDB\xB2 2. Delete books");
95.     gotoxy(20,9);
96.     printf("\xDB\xDB\xDB\xDB\xB2 3. Search Books");
97.     gotoxy(20,11);
98.     printf("\xDB\xDB\xDB\xDB\xB2 4. Issue Books");
99.     gotoxy(20,13);
100.        printf("\xDB\xDB\xDB\xDB\xB2 5. View Book list");
101.        gotoxy(20,15);
102.        printf("\xDB\xDB\xDB\xDB\xB2 6. Edit Book's Record");
103.        gotoxy(20,17);
104.        printf("\xDB\xDB\xDB\xDB\xB2 7. Close Application");
105.        gotoxy(20,19);
```

```c
106.    printf("\xB2\xB2\xB2\xB2\xB2\xB2\xB2\xB2\xB2\xB2\xB2\xB2\xB2\xB2\xB2\xB2
    \xB2\xB2\xB2\xB2\xB2\xB2\xB2\xB2\xB2\xB2\xB2\xB2\xB2\xB2\xB2\xB2\xB2\xB2\xB2\xB
    2\xB2\xB2");
107.        gotoxy(20,20);
108.        t();
109.        gotoxy(20,21);
110.        printf("Enter your choice:");
111.        switch(getch())
112.        {
113.            case '1':
114.        addbooks();    115.
break;    116.    case '2':
117.            deletebooks();
118.            break;    119.
case '3':
120.        searchbooks();    121.
break;    122.    case '4':
123.            issuebooks();
124.            break;    125.
case '5':
126.            viewbooks();
127.            break;    128.
case '6':
129.            editbooks();
130.            break;    131.
case '7':
132.            {
133.            system("cls");
134.            gotoxy(16,3);
135.            printf("Programmers....");
136.            gotoxy(16,4);
137.            printf("1. Bibek Subedi        (066/BCT/506)");
138.            gotoxy(16,5);
139.            printf("   Mobile:9846311430   E-mail:subedi_bibek@yahoo.co.in");
140.            gotoxy(16,7);
141.            printf("2. Dinesh Subedi       (066/BCT/512)");
142.            gotoxy(16,8);
143.            printf("   Mobile:9841569394   E-mail:dinesh_subedi92@yahoo.com");
144.            gotoxy(16,10);
145.            printf("3. Sijan Bhandari      (066/BCT/537)");
146.            gotoxy(16,11);
147.            printf("   Mobile:9849516774    E-mail:sijan_nasa@yahoo.com");
148.            gotoxy(16,13);
149.            printf("With  the Unexplainable Help of Mr.Ashok Basnet");
150.            gotoxy(10,17);
151.            printf("Exiting in 3 second...........>");
152.            //flushall();
153.            delay(3000);
154.            exit(0);
155.            }    156.            default:
157.            {
158.            gotoxy(10,23);
159.            printf("\aWrong Entry!!Please re-entered correct option");
160.            if(getch())
161.            mainmenu();
162.            }    163.
164.        }
165.        }
166.        void addbooks(void)    //funtion that add books
167.        {
168.        system("cls");
169.        int i;
```

```c
170.            gotoxy(20,5);
171.            printf("\xB2\xB2\xB2\xB2\xB2\xB2\xB2\xB2\xB2\xB2\xB2SELECT CATEGOIES\xB2
    \xB2\xB2\xB2\xB2\xB2\xB2\xB2\xB2\xB2\xB2\xB2");
172.            gotoxy(20,7);
173.            printf("\xDB\xDB\xDB\xDB\xB2 1. Computer");
174.            gotoxy(20,9);
175.            printf("\xDB\xDB\xDB\xDB\xB2 2. Electronics");
176.            gotoxy(20,11);
177.            printf("\xDB\xDB\xDB\xDB\xB2 3. Electrical");
178.        gotoxy(20,13);
179.        printf("\xDB\xDB\xDB\xDB\xB2 4. Civil");
180.        gotoxy(20,15);
181.        printf("\xDB\xDB\xDB\xDB\xB2 5. Mechanical");
182.        gotoxy(20,17);
183.        printf("\xDB\xDB\xDB\xDB\xB2 6. Architecture");
184.        gotoxy(20,19);
185.        printf("\xDB\xDB\xDB\xDB\xB2 7. Back to main menu");
186.        gotoxy(20,21);
187.     printf("\xB2\xB2\xB2\xB2\xB2\xB2\xB2\xB2\xB2\xB2\xB2\xB2\xB2\xB2\xB2\xB2
    \xB2\xB2\xB2\xB2\xB2\xB2\xB2\xB2\xB2\xB2\xB2\xB2\xB2\xB2\xB2\xB2\xB2\xB2\xB2\xB
    2\xB2\xB2");
188.        gotoxy(20,22);
189.        printf("Enter your choice:");
190.        scanf("%d",&s);
191.        if(s==7)
192.
193.        mainmenu() ;
194.        system("cls");
195.        fp=fopen("Bibek.dat","ab+");
196.        if(getdata()==1)
197.        {
198.        a.cat=catagories[s-1];
199.        fseek(fp,0,SEEK_END);
200.        fwrite(&a,sizeof(a),1,fp);
201.        fclose(fp);
202.        gotoxy(21,14);
203.        printf("The record is sucessfully saved");
204.        gotoxy(21,15);
205.        printf("Save any more?(Y / N):");
206.        if(getch()=='n')
207.            mainmenu();
208.        else
209.            system("cls");
210.            addbooks();
211.        }
212.    }
213.    void deletebooks()    //function that delete items from file fp
214.    {
215.        system("cls");
216.        int d;
217.        char another='y';
218.        while(another=='y')  //infinite loop
219.        {
220.        system("cls");
221.        gotoxy(10,5);
222.        printf("Enter the Book ID to  delete:");
223.        scanf("%d",&d);
224.        fp=fopen("Bibek.dat","rb+");
```

```c
225.        rewind(fp);
226.        while(fread(&a,sizeof(a),1,fp)==1)
227.        {
228.            if(a.id==d)
229.            {
230.
231.            gotoxy(10,7);
232.            printf("The book record is available");
233.            gotoxy(10,8);
234.            printf("Book name is %s",a.name);
235.            gotoxy(10,9);
236.            printf("Rack No. is %d",a.rackno);
237.            findbook='t';
238.            }
239.        }
240.        if(findbook!='t')
241.        {
242.            gotoxy(10,10);
243.            printf("No record is found modify the search");
244.            if(getch())
245.            mainmenu();
246.        }
247.        if(findbook=='t' )
248.        {
249.            gotoxy(10,9);
250.            printf("Do you want to delete it?(Y/N):");
251.            if(getch()=='y')
252.            {
253.            ft=fopen("test.dat","wb+");   //temporary file for delete
254.            rewind(fp);
255.            while(fread(&a,sizeof(a),1,fp)==1)
256.            {
257.                if(a.id!=d)
258.                {
259.                fseek(ft,0,SEEK_CUR);
260.                 fwrite(&a,sizeof(a),1,ft); //write all in tempory file except th at
261.                }                           //we want to delete
262.            }
263.            fclose(ft);
264.            fclose(fp);
265.            remove("Bibek.dat");
266.            rename("test.dat","Bibek.dat"); //copy all item from temporary file to
     fp except that
267.            fp=fopen("Bibek.dat","rb+");    //we want to delete
268.            if(findbook=='t')
269.            {
270.                gotoxy(10,10);
271.                printf("The record is sucessfully deleted");
272.                gotoxy(10,11);
273.                printf("Delete another record?(Y/N)");
274.            }
275.            }
276.        else
277.        mainmenu();
278.        fflush(stdin);
279.        another=getch();
280.        }
```

```
281.        }
282.        gotoxy(10,15);
283.        mainmenu();
284.    }
285.    void searchbooks()
286.    {
287.        system("cls");
288.        int d;
289.        printf("****************************Search Books*********************
    **********");
290.        gotoxy(20,10);
291.        printf("\xDB\xDB\xDB\xB2 1. Search By ID");
292.        gotoxy(20,14);
293.        printf("\xDB\xDB\xDB\xB2 2. Search By Name");
294.        gotoxy( 15,20);
295.        printf("Enter Your Choice");
296.        fp=fopen("Bibek.dat","rb+"); //open file for reading propose
297.        rewind(fp);   //move pointer at the begining of file
298.        switch(getch())
299.        {
300.          case '1':
301.          {
302.            system("cls");
303.            gotoxy(25,4);
304.            printf("****Search Books By Id****");
305.                gotoxy(20,5);
306.                printf("Enter the book id:");
307.                scanf("%d",&d);
308.                gotoxy(20,7);
309.                printf("Searching........");
310.                while(fread(&a,sizeof(a),1,fp)==1)
311.                {
312.                if(a.id==d)
313.                {
314.                delay(2);
315.                gotoxy(20,7);
316.                printf("The Book is available");
317.                gotoxy(20,8);
318.                printf("\xB2\xB2\xB2\xB2\xB2\xB2\xB2\xB2\xB2\xB2\xB2\xB2\xB2\xB2
    \xB2\xB2\xB2\xB2\xB2\xB2\xB2\xB2\xB2\xB2\xB2\xB2\xB2\xB2");
319.                gotoxy(20,9);
320.                printf("\xB2 ID:%d",a.id);gotoxy(47,9);printf("\xB2");
321.                gotoxy(20,10);
322.                printf("\xB2 Name:%s",a.name);gotoxy(47,10);printf("\xB2");
323.                gotoxy(20,11);
324.                printf("\xB2 Author:%s ",a.Author);gotoxy(47,11);printf("\xB2");
325.                gotoxy(20,12);
326.                printf("\xB2 Qantity:%d ",a.quantity);gotoxy(47,12);printf("\xB2
                    "); gotoxy(47,11);printf("\xB2");
327.                gotoxy(20,13);
328.                printf("\xB2 Price:Rs.%.2f",a.Price);gotoxy(47,13);printf("\xB2"
                    );
329.                gotoxy(20,14);
330.                printf("\xB2 Rack No:%d ",a.rackno);gotoxy(47,14);printf("\xB2")
                    ;
331.                gotoxy(20,15);
332.                printf("\xB2\xB2\xB2\xB2\xB2\xB2\xB2\xB2\xB2\xB2\xB2\xB2\xB2\xB2
    \xB2\xB2\xB2\xB2\xB2\xB2\xB2\xB2\xB2\xB2\xB2\xB2\xB2\xB2");
333.                findbook='t';
334.                }   335.
336.            }
```

```
337.              if(findbook!='t')  //checks whether conditiion enters inside loop or
                  not
338.              {
339.              gotoxy(20,8);
340.              printf("\xB2\xB2\xB2\xB2\xB2\xB2\xB2\xB2\xB2\xB2\xB2\xB2\xB2\xB2
                  \xB2\xB2\xB2\xB2");
341.              gotoxy(20,9);printf("\xB2");  gotoxy(38,9);printf("\xB2");
342.              gotoxy(20,10);
343.              printf("\xB2\xB2\xB2\xB2\xB2\xB2\xB2\xB2\xB2\xB2\xB2\xB2\xB2\xB2
                  \xB2\xB2\xB2\xB2");
344.              gotoxy(22,9);printf("\aNo Record Found");
345.              }
346.              gotoxy(20,17);
347.              printf("Try another search?(Y/N)");
348.              if(getch()=='y')
349.              searchbooks();
350.              else
351.              mainmenu();
352.              break;
353.          }
354.       case '2':
355.           {
356.           char s[15];
357.           system("cls");
358.           gotoxy(25,4);
359.           printf("****Search Books By Name****");
360.           gotoxy(20,5);
361.           printf("Enter Book Name:");
362.         scanf("%s",s);
363.         int d=0;
364.         while(fread(&a,sizeof(a),1,fp)==1)
365.          {
366.       if(strcmp(a.name,(s))==0) //checks whether a.name is equal to s or n ot
367.          {
368.              gotoxy(20,7);
369.              printf("The Book is available");
370.              gotoxy(20,8);
371.              printf("\xB2\xB2\xB2\xB2\xB2\xB2\xB2\xB2\xB2\xB2\xB2\xB2\xB2\xB2
         \xB2\xB2\xB2\xB2\xB2\xB2\xB2\xB2\xB2\xB2\xB2\xB2\xB2\xB2");
372.              gotoxy(20,9);
373.              printf("\xB2 ID:%d",a.id);gotoxy(47,9);printf("\xB2");
374.              gotoxy(20,10);
375.              printf("\xB2 Name:%s",a.name);gotoxy(47,10);printf("\xB2");
376.              gotoxy(20,11);
377.         printf("\xB2 Author:%s",a.Author);gotoxy(47,11);printf("\xB2");

378.              gotoxy(20,12);
379.         printf("\xB2 Qantity:%d",a.quantity);gotoxy(47,12);printf("\xB2"
    );
380.              gotoxy(20,13);
381.         printf("\xB2 Price:Rs.%.2f",a.Price);gotoxy(47,13);printf("\xB2"
    );
382.              gotoxy(20,14);
383.         printf("\xB2 Rack No:%d ",a.rackno);gotoxy(47,14);printf("\xB2")
    ;
384.              gotoxy(20,15);
385.              printf("\xB2\xB2\xB2\xB2\xB2\xB2\xB2\xB2\xB2\xB2\xB2\xB2\xB2\xB2
    \xB2\xB2\xB2\xB2\xB2\xB2\xB2\xB2\xB2\xB2\xB2\xB2\xB2\xB2");
386.              d++;
```

```c
387.            }
388.
389.            }
390.            if(d==0)
391.            {
392.            gotoxy(20,8);
393.            printf("\xB2\xB2\xB2\xB2\xB2\xB2\xB2\xB2\xB2\xB2\xB2\xB2\xB2\xB2\xB2
     \xB2\xB2\xB2\xB2");
394.            gotoxy(20,9);printf("\xB2");  gotoxy(38,9);printf("\xB2");
395.            gotoxy(20,10);
396.            printf("\xB2\xB2\xB2\xB2\xB2\xB2\xB2\xB2\xB2\xB2\xB2\xB2\xB2\xB2
     \xB2\xB2\xB2\xB2");
397.            gotoxy(22,9);printf("\aNo Record Found");
398.            }
399.            gotoxy(20,17);
400.            printf("Try another search?(Y/N)");
401.            if(getch()=='y')
402.            searchbooks();
403.            else
404.            mainmenu();
405.            break;
406.        }
407.        default :
408.        getch();
409.        searchbooks();
410.        }
411.        fclose(fp);
412.    }
413.    void issuebooks(void)  //function that issue books from library
414.    {
415.        int t;
416.
417.        system("cls");
418.          printf("*******************************ISSUE  SECTION******************
     *******");
419.        gotoxy(10,5);
420.        printf("\xDB\xDB\xDB\xDb\xB2 1. Issue a Book");
421.        gotoxy(10,7);
422.        printf("\xDB\xDB\xDB\xDb\xB2 2. View Issued Book");
423.        gotoxy(10,9);
424.        printf("\xDB\xDB\xDB\xDb\xB2 3. Search Issued Book");
425.        gotoxy(10,11);
426.        printf("\xDB\xDB\xDB\xDb\xB2 4. Remove Issued Book");
427.        gotoxy(10,14);
428.        printf("Enter a Choice:");
429.        switch(getch())
430.        {
431.        case '1':  //issue book
432.        {
433.            system("cls");
434.            int c=0;
435.            char another='y';
436.            while(another=='y')
437.            {
438.                system("cls");
439.                gotoxy(15,4);
440.                printf("***Issue Book section***");
```

```c
441.              gotoxy(10,6);
442.              printf("Enter the Book Id:");
443.              scanf("%d",&t);
444.              fp=fopen("Bibek.dat","rb");
445.              fs=fopen("Issue.dat","ab+");
446.          if(checkid(t)==0) //issues those which are present in library
447.              {
448.                  gotoxy(10,8);
449.                  printf("The book record is available");
450.                  gotoxy(10,9);
451.              printf("There are %d unissued books in library ",a.quantity
     );
452.                  gotoxy(10,10);
453.                  printf("The name of book is %s",a.name);
454.                  gotoxy(10,11);
455.                  printf("Enter student name:");
456.                  scanf("%s",a.stname);
457.              // struct dosdate_t d; //for current date
458.              // _dos_getdate(&d);
459.              // a.issued.dd=d.day;
460.              // a.issued.mm=d.month;
461.              //a.issued.yy=d.year;
462.                  gotoxy(10,12);
463.                  printf("Issued date=%d-
     %d%d",a.issued.dd,a.issued.mm,a.issued.yy);
464.                  gotoxy(10,13);
465.                  printf("The BOOK of ID %d is issued",a.id);
466.              a.duedate.dd=a.issued.dd+RETURNTIME;   //for return date
467.              a.duedate.mm=a.issued.mm;
468.              a.duedate.yy=a.issued.yy;
469.              if(a.duedate.dd>30)
470.              {
471.              a.duedate.mm+=a.duedate.dd/30;
472.              a.duedate.dd-=30;
473.
474.              }
475.              if(a.duedate.mm>12)
476.              {
477.              a.duedate.yy+=a.duedate.mm/12;
478.              a.duedate.mm-=12;
479.
480.              }
481.                  gotoxy(10,14);
482.                  printf("To be return:%d-%d-
     %d",a.duedate.dd,a.duedate.mm,a.duedate.yy);
483.                  fseek(fs,sizeof(a),SEEK_END);
484.                  fwrite(&a,sizeof(a),1,fs);
485.                  fclose(fs);
486.                  c=1;
487.                  }
488.                  if(c==0)
489.                  {
490.                  gotoxy(10,11);
491.                  printf("No record found");
492.                  }
493.                  gotoxy(10,15);
494.                  printf("Issue any more(Y/N):");
495.                  fflush(stdin);
496.                  another=getche();
```

```
497.                        fclose(fp);
498.                        }    499.
500.              break;
501.                  }
502.                  case '2':  //show issued book list
503.                  {
504.                  system("cls");
505.                  int j=4;
506.                  printf("*****************************Issued book
                      list************* ****************\n");
507.                  gotoxy(2,2);
508.                  printf("STUDENT NAME    CATEGORY    ID    BOOK NAME    ISSUED
                      DATE    RETURN DATE");
509.                  fs=fopen("Issue.dat","rb");
510.                  while(fread(&a,sizeof(a),1,fs)==1)
511.                  {    512.
513.                   gotoxy(2,j);
514.                   printf("%s",a.stname);
515.                   gotoxy(18,j);
516.                   printf("%s",a.cat);
517.                   gotoxy(30,j);
518.                   printf("%d",a.id);
519.                   gotoxy(36,j);
520.                   printf("%s",a.name);
521.                   gotoxy(51,j);
522.                   printf("%d-%d-%d",a.issued.dd,a.issued.mm,a.issued.yy );
523.                   gotoxy(65,j);
524.                   printf("%d-%d-%d",a.duedate.dd,a.duedate.mm,a.duedate.yy);
525.                   //struct dosdate_t d;
526.                   //_dos_getdate(&d);
527.                   gotoxy(50,25);
528.                   //          printf("Current date=%d-%d-
                      %d",d.day,d.month,d.year);
529.                   j++;
530.
531.              }
532.              fclose(fs);
533.              gotoxy(1,25);
534.              returnfunc();
535.              }
536.          break;
537.              case '3':   //search issued books by id
538.              {
539.              system("cls");
540.              gotoxy(10,6);
541.              printf("Enter Book ID:");
542.              int p,c=0;
543.              char another='y';
544.              while(another=='y')
545.              {
546.
547.                  scanf("%d",&p);
548.                  fs=fopen("Issue.dat","rb");
549.                  while(fread(&a,sizeof(a),1,fs)==1)
550.                  {
551.                      if(a.id==p)
552.                      {
553.                          issuerecord();
554.                          gotoxy(10,12);
555.                          printf("Press any key.......");
556.                          getch();
```

```c
557.                          issuerecord();
558.                          c=1;
559.                      }
560.
561.                  }
562.              fflush(stdin);
563.              fclose(fs);
564.              if(c==0)
565.              {
566.                  gotoxy(10,8);
567.                  printf("No Record Found");
568.              }
569.              gotoxy(10,13);
570.              printf("Try Another Search?(Y/N)");
571.              another=getch();
572.          }
573.      }
574.  break;
575.  case '4':  //remove issued books from list
576.      {
577.          system("cls");
578.          int b;
579.          FILE *fg;  //declaration of temporary file for delete
580.          char another='y';
581.          while(another=='y')
582.          {
583.              gotoxy(10,5);
584.              printf("Enter book id to remove:");
585.              scanf("%d",&b);
586.              fs=fopen("Issue.dat","rb+");
587.              while(fread(&a,sizeof(a),1,fs)==1)
588.              {
589.                  if(a.id==b)
590.                  {
591.                      issuerecord();
592.                      findbook='t';
593.                  }
594.                  if(findbook=='t')
595.                  {
596.                      gotoxy(10,12);
597.                      printf("Do You Want to Remove it?(Y/N)");
598.                      if(getch()=='y')
599.                      {
600.                          fg=fopen("record.dat","wb+");
601.                          rewind(fs);
602.                          while(fread(&a,sizeof(a),1,fs)==1)
603.                          {
604.                              if(a.id!=b)
605.                              {
606.                              fseek(fs,0,SEEK_CUR);
607.                              fwrite(&a,sizeof(a),1,fg);
608.                              }
609.                          }
610.                  fclose(fs);
611.                  fclose(fg);
612.                  remove("Issue.dat");
613.                  rename("record.dat","Issue.dat");
```

```c
614.                            gotoxy(10,14);
615.                            printf("The issued book is removed from list");
616.
617.                            }
618.
619.                    }
620.                    if(findbook!='t')
621.                    {
622.                        gotoxy(10,15);
623.                        printf("No Record Found");
624.                    }
625.                }
626.                gotoxy(10,16);
627.                printf("Delete any more?(Y/N)");
628.                another=getch();
629.            }
630.        }
631.        default:
632.        gotoxy(10,18);
633.        printf("\aWrong Entry!!");
634.        getch();
635.        issuebooks();
636.        break;
637.            }
638.        gotoxy(1,30);
639.        returnfunc();
640.    }
641.    void viewbooks(void)  //show the list of book persists in library
642.    {
643.        int i=0,j;
644.        system("cls");
645.        gotoxy(1,1);
646.        printf("*******************************Book  List**************************");
647.        gotoxy(2,2);
648.        printf(" CATEGORY     ID    BOOK NAME     AUTHOR      QTY     PRICE   RackNo ");
649.        j=4;
650.        fp=fopen("Bibek.dat","rb");
651.        while(fread(&a,sizeof(a),1,fp)==1)
652.        {
653.        gotoxy(3,j);
654.        printf("%s",a.cat);
655.        gotoxy(16,j);
656.        printf("%d",a.id);
657.        gotoxy(22,j);
658.        printf("%s",a.name);
659.        gotoxy(36,j);
660.        printf("%s",a.Author);
661.        gotoxy(50,j);
662.        printf("%d",a.quantity);
663.        gotoxy(57,j);
664.        printf("%.2f",a.Price);
665.        gotoxy(69,j);
666.        printf("%d",a.rackno);
667.        printf("\n\n");
668.        j++;
```

```c
669.         i=i+a.quantity;
670.             }
671.          gotoxy(3,25);
672.          printf("Total Books =%d",i);
673.          fclose(fp);
674.              gotoxy(35,25);
675.              returnfunc();
676.         }
677.       void editbooks(void)   //edit information about book
678.       {
679.           system("cls");
680.           int c=0;
681.           int d,e;
682.           gotoxy(20,4);
683.           printf("****Edit Books Section****");
684.           char another='y';
685.           while(another=='y')
686.           {
687.               system("cls");
688.               gotoxy(15,6);
689.               printf("Enter Book Id to be edited:");
690.               scanf("%d",&d);
691.               fp=fopen("Bibek.dat","rb+");
692.               while(fread(&a,sizeof(a),1,fp)==1)
693.               {
694.                   if(checkid(d)==0)
695.                   {
696.                       gotoxy(15,7);
697.                       printf("The book is availble");
698.                       gotoxy(15,8);
699.                       printf("The Book ID:%d",a.id);
700.                       gotoxy(15,9);
701.                       printf("Enter new name:");scanf("%s",a.name);
702.                       gotoxy(15,10);
703.                       printf("Enter new Author:");scanf("%s",a.Author);
704.                       gotoxy(15,11);
705.                       printf("Enter new quantity:");scanf("%d",&a.quantity);
706.                       gotoxy(15,12);
707.                       printf("Enter new price:");scanf("%f",&a.Price);
708.                       gotoxy(15,13);
709.                       printf("Enter new rackno:");scanf("%d",&a.rackno);
710.                       gotoxy(15,14);
711.                       printf("The record is modified");
712.                       fseek(fp,ftell(fp)-sizeof(a),0);
713.                       fwrite(&a,sizeof(a),1,fp);
714.                       fclose(fp);
715.                       c=1;
716.                   }
717.                   if(c==0)
718.                   {
719.                       gotoxy(15,9);
720.                       printf("No record found");
721.                   }
722.               }
723.               gotoxy(15,16);
724.               printf("Modify another Record?(Y/N)");
725.               fflush(stdin);
```

```c
726.                another=getch() ;
727.            }
728.                returnfunc();
729.        }
730.        void returnfunc(void)
731.        {
732.            {
733.            printf(" Press ENTER to return to main menu");
734.            }
735.            a:
736.            if(getch()==13) //allow only use of enter
737.            mainmenu();
738.            else
739.            goto a;
740.    }
741.    int getdata()
742.    {
743.        int t;
744.        gotoxy(20,3);printf("Enter the Information Below");
745.        gotoxy(20,4);printf("\xB2\xB2\xB2\xB2\xB2\xB2\xB2\xB2\xB2\xB2\xB2\xB2\xB2\xB2\xB2\xB2\xB2\xB2\xB2\xB2\xB2\xB2\xB2\xB2\xB2\xB2\xB2");
746.        gotoxy(20,5);
747.        printf("\xB2");gotoxy(46,5);printf("\xB2");
748.        gotoxy(20,6);
749.        printf("\xB2");gotoxy(46,6);printf("\xB2");
750.        gotoxy(20,7);
751.        printf("\xB2");gotoxy(46,7);printf("\xB2");
752.        gotoxy(20,8);
753.        printf("\xB2");gotoxy(46,8);printf("\xB2");
754.        gotoxy(20,9);
755.        printf("\xB2");gotoxy(46,9);printf("\xB2");
756.        gotoxy(20,10);
757.        printf("\xB2");gotoxy(46,10);printf("\xB2");
758.        gotoxy(20,11);
759.        printf("\xB2");gotoxy(46,11);printf("\xB2");
760.        gotoxy(20,12);
761.     printf("\xB2\xB2\xB2\xB2\xB2\xB2\xB2\xB2\xB2\xB2\xB2\xB2\xB2\xB2\xB2\xB2\xB2\xB2\xB2\xB2\xB2\xB2\xB2\xB2\xB2\xB2");
762.        gotoxy(21,5);
763.        printf("Category:");
764.        gotoxy(31,5);
765.        printf("%s",catagories[s-1]);
766.        gotoxy(21,6);
767.        printf("Book ID:\t");
768.        gotoxy(30,6);
769.        scanf("%d",&t);
770.        if(checkid(t) == 0)
771.        {
772.            gotoxy(21,13);
773.            printf("\aThe book id already exists\a");
774.            getch();
775.            mainmenu();
776.            return 0;
777.        }
778.        a.id=t;
779.        gotoxy(21,7);
780.        printf("Book Name:");gotoxy(33,7);
```

```c
781.        scanf("%s",a.name);
782.        gotoxy(21,8);
783.        printf("Author:");gotoxy(30,8);
784.        scanf("%s",a.Author);
785.        gotoxy(21,9);
786.        printf("Quantity:");gotoxy(31,9);
787.        scanf("%d",&a.quantity);
788.        gotoxy(21,10);
789.        printf("Price:");gotoxy(28,10);
790.        scanf("%f",&a.Price);
791.        gotoxy(21,11);
792.        printf("Rack No:");gotoxy(30,11);
793.        scanf("%d",&a.rackno);
794.        return 1;
795.    }
796.    int checkid(int t)  //check whether the book is exist in library or not
797.    {
798.        rewind(fp);
799.        while(fread(&a,sizeof(a),1,fp)==1)
800.        if(a.id==t)
801.        return 0;  //returns 0 if book exits
802.          return 1; //return 1 if it not
803.    }
804.        int t(void) //for time
805.        {
806.        time_t t;
807.        time(&t);
808.        printf("Date and time:%s\n",ctime(&t));
809.
810.        return 0 ;
811.        }
812.        //void show_mouse(void) //show inactive mouse pointer in programme
813.        //{
814.        //union REGS in,out;
815.        //
816.        //      in.x.ax = 0x1;
817.        //      int86(0x33,&in,&out);
818.        //}
819.        void Password(void) //for password option
820.        {
821.
822.          system("cls");
823.          char d[25]="Password Protected";
824.          char ch,pass[10];
825.          int i=0,j;
826.          //textbackground(WHITE);
827.          //textcolor(RED);
828.           gotoxy(10,4);
829.           for(j=0;j<20;j++)
830.           {
831.           delay(50);
832.           printf("*");
833.           }
834.           for(j=0;j<20;j++)
835.           {
836.           delay(50);
837.           printf("%c",d[j]);
```

```c
838.            }
839.            for(j=0;j<20;j++)
840.            {
841.            delay(50);
842.            printf("*");
843.            }
844.            gotoxy(10,10);
845.            gotoxy(15,7);
846.            printf("Enter Password:");
847.
848.            while(ch!=13)
849.            {
850.             ch=getch();
851.
852.             if(ch!=13 && ch!=8){
853.             putch('*');
854.             pass[i] = ch;
855.             i++;
856.             }
857.            }
858.            pass[i] = '\0';
859.            if(strcmp(pass,password)==0)
860.            {
861.
862.             gotoxy(15,9);
863.             //textcolor(BLINK);
864.             printf("Password match");
865.             gotoxy(17,10);
866.             printf("Press any key to countinue.....");
867.             getch();
868.             mainmenu();
869.            }
870.        else
871.        {
872.          gotoxy(15,16);
873.          printf("\aWarning!! Incorrect Password");
874.          getch();
875.          Password();
876.        }
877.    }
878.    void issuerecord()  //display issued book's information
879.    {
880.            system("cls");
881.            gotoxy(10,8);
882.            printf("The Book has taken by Mr. %s",a.stname);
883.            gotoxy(10,9);
884.            printf("Issued Date:%d-%d-
    %d",a.issued.dd,a.issued.mm,a.issued.yy);
885.            gotoxy(10,10);
886.            printf("Returning Date:%d-%d-
    %d",a.duedate.dd,a.duedate.mm,a.duedate.yy);
887.    }
888.    void loaderanim()
889.    {
890.    int loader;
891.    system("cls");
```

```
892.    gotoxy(20,10);
893.    printf("LOADING........");
894.    printf("\n\n");
895.    gotoxy(22,11);
896.    for(loader=1;loader<20;loader++)
897.    {
898.    delay(100);printf("%c",219);}
899.    }
900.    //End of program
```

```
*********************Password Protected  *********************

        Enter Password:_
```

```
////////////////////// MAIN MENU //////////////////////
////////  1. Add Books
////////  2. Delete books
////////  3. Search Books
////////  4. Issue Books
////////  5. View Book list
////////  6. Edit Book's Record
////////  7. Close Application
//////////////////////////////////////////////////////
Date and time:Sun Jun 29 11:55:32 2014
Enter your choice:
```