



```

58     cout << "\n\t\t\t\t\tAccess Denied!\n\n\t\t\t\t\tSystem will
    shut down
59         \n\n\t\t\t\t\tPlease come back again." << endl;
60     exit(0);
61 }
62 }
63 };
64
65 // password class ends
66 // -----
67
68
69
70
71 //the doctor class
72 // -----
73
74
75 class doctor {
76 public:
77     string d_fname, d_lname;
78     int d_ID, d_age, experience, d_totalno;
79     string qual, d_city;
80     string getSpec();
81     friend void addDoc();
82     friend void editDoc(doctor &docobj);
83     friend void displayDoc();
84     friend void deleteDoc();
85     friend void dispDatabase();
86     friend void numberOfDocs();
87     friend void getDoctorDatabase();
88 };
89
90
91 // doctor class ends here
92 // -----
93
94
95
96 // Doctor Specility
97 // -----
98
99 string doctor::getSpec() {
100     string sp;
101
102     cout << "\t\t\t\t\t1.GENERAL_MEDICINE" << endl;
103     cout << "\t\t\t\t\t2.NEUROLOGY" << endl;
104     cout << "\t\t\t\t\t3.ONCOLOGY" << endl;
105     cout << "\t\t\t\t\t4.HAEMATOLOGY" << endl;
106     cout << "\t\t\t\t\t5.GASTROENTEROLOGY" << endl;
107     cout << "\t\t\t\t\t6.GYNAECOLOGY " << endl;
108     cout << endl;
109     int s;
110     cout << "\t\t\t\t\t";
111     cin >> s;
112     switch (s) {
113

```



```

169 cout << "\n\t\t\t\t\t\t\tAge: " ;
170 cin >> d.d_age;
171 cout << "\n\t\t\t\t\t\t\tChoose Qualification among the following:
172         \n\t\t\t\t\t\t\t1.MBBS\n\t\t\t\t\t\t\t2.MD" << endl;
173 int q;
174 cout << "\t\t\t\t\t\t\t";
175 cin >> q;
176 if (q == 1)
177     d.qual = "MBBS";
178 else d.qual = "MD";
179 cout << "\n\t\t\t\t\t\t\tChoose Specialization among the following:
180         " << endl;
181 string spec = d.getSpec();
182 cout << "\n\t\t\t\t\t\t\tExperience (in Years): ";
183 cin >> d.experience;
184 cout << "\n\t\t\t\t\t\t\tCity: ";
185 cin >> d.d_city;
186
187 clear_screen();
188 fstream fileObj;
189 fileObj.open("doctor.txt", ios::app );
190 fileObj.seekp (0, ios::end);
191 fileObj << d.d_ID << endl << d.d_fname << endl << d.d_lname <<
192         endl << d.d_age << endl << d.qual << endl << spec << endl
193         <<
194         d.experience << endl << d.d_city << endl;
195 fileObj.close();
196
197
198 cout << "\n\t\t\t\t\t\t\tNew Doctor profile created successfully!" <<
199         endl << endl << endl;
200
201 cout << "\n\t\t\t\t\t\t\tEnter 1 to return to Doctor Database\n\t\t\t\t\t\t\t
202         \t\t\t\t\t\t\tEnter 2 to Exit." << endl;
203 cout << "\t\t\t\t\t\t\t";
204 int c;
205 cin >> c;
206 if (c == 1) {
207     clear_screen();
208     getDoctorDatabase();
209 }
210 else
211     exit(0);
212 }
213
214
215 // Add Doctor Functions End Here
216 //-----
217
218
219
220
221 // Edit Doctor Function Starts Here

```

```

222 //-----
223
224
225 void editDoc(doctor &docobj)
226 {
227
228     string x;
229     cout << "\n\n\t\t\t\t\tEnter the ID of the Doctor whose profile
        you want to Edit: " ;
230     cin >> x;
231     fstream fileObj("doctor.txt");
232     fileObj.seekg(0);
233
234     int age, exp, count = 0;
235     string ID, fname, lname, ci, qua, spe;
236     while (fileObj >> ID >> fname >> lname >> age >> qua >> spe >>
        exp >> ci)
237     {
238         if (ID == x) {
239             cout << "\n\n\t\t\t\t\t1.ID:" << ID << endl
240                 << "\t\t\t\t\t2.First Name:" << fname << endl
241                 << "\t\t\t\t\t3.Last Name:" << lname << endl
242                 << "\t\t\t\t\t4.Age:" << age << endl
243                 << "\t\t\t\t\t5.Qualification:" << qua << endl
244                 << "\t\t\t\t\t6.Specialization:" << spe << endl
245                 << "\t\t\t\t\t7.Experience:" << exp << endl
246                 << "\t\t\t\t\t8.City:" << ci << endl << endl;
247             count++;
248             break;
249         }
250     }
251
252     fileObj.close();
253
254
255
256     if (count == 0) {
257         cout << "\n\t\t\t\t\t\t\tNo matching records found!" << endl;
258         cout << "\n\n\t\t\t\t\t\t\tEnter 1 to return to Doctor Database\n
        \n\t\t\t\t\t\t\tEnter 2 to Exit." << endl;
259         cout << "\t\t\t\t\t\t\t";
260         int c;
261         cin >> c;
262         if (c == 1) {
263             clear_screen();
264             getDoctorDatabase();
265         }
266
267         else
268             exit(0);
269     }
270
271
272
273     fstream file("doctor.txt");
274     file.seekg(0, ios::beg);
275     file.seekg(0);

```

```

276 string line;
277 ofstream tempObj;
278 tempObj.open("copy.txt");
279 tempObj.seekp(0);
280 int skip = 0;
281 int age1, exp1;
282 string fname1, lname1, ci1, qua1, spe1;
283 file.seekg(0); file.seekg(0, ios::cur);
284
285
286 while (file >> line >> fname1 >> lname1 >> age1 >> qua1 >> spe1
      >> exp1 >> ci1)
287 {
288     if (line != x) {
289         tempObj << line << endl << fname1 << endl
290             << lname1 << endl << age1 << endl << qua1 << endl
291             << spe1 << endl << exp1 << endl << ci1 << endl;
292     }
293 }
294
295 file.close();
296 tempObj.close();
297 remove("doctor.txt");
298 int result;
299 char oldname[] = "copy.txt";
300 char newname[] = "doctor.txt";
301 result = rename( oldname , newname );
302 //datatransfer ends
303 int edit;
304 cout << "\t\t\t\t\tEnter number corresponding to the Field you
      want to Edit: ";
305 cin >> edit;
306 cout << endl;
307 switch (edit)
308 {
309     case 1: {
310         cout << "\t\t\t\t\tID : " ;
311         cin >> ID;
312         break;
313     }
314     case 2: {
315         cout << "\t\t\t\t\tFirst Name: " ;
316         cin >> fname;
317
318         break;
319     }
320     case 3: {
321         cout << "\t\t\t\t\tLast Name: " ;
322         cin >> lname;
323
324         break;
325     }
326     case 4: {
327         cout << "\t\t\t\t\tAge: " ;
328         cin >> age;
329         break;
330     }
}

```



```

    << spe << endl << "\t\t\t\t\t7.Experience:" << exp << endl <<
    "\t\t\t\t\t8.City:" << ci << endl << endl;
382
383 fstream newObj;
384 newObj.open("doctor.txt", ios::app);
385 newObj.seekp (0, ios::end);
386 newObj << ID << endl << fname << endl << lname
387 << endl << age << endl << qua << endl << spe
388 << endl << exp << endl << ci << endl;
389 newObj.close();
390
391
392
393 cout << "\t\t\t\t\t" << "
    -----" << endl;
394
395 cout << "\n\n\t\t\t\t\tEnter 1 to return to Doctor Database\n\n\t
    \t\t\t\t\tEnter 2 to Exit." << endl;
396 cout << "\n\t\t\t\t\t\t\t";
397 int c;
398 cin >> c;
399 if (c == 1) {
400     clear_screen();
401     getDoctorDatabase();
402 }
403
404 else
405     exit(0);
406 }
407
408
409 // Edit Doctor Functions Ends Here
410 //-----
411
412
413
414
415 //the Display Doctor Function
416 //-----
417
418
419 void displayDoc()
420 {
421     int x;
422     cout << "\n\n\t\t\t\t\tEnter the ID of the Doctor whose profile
        you want to Edit: " ;
423     cin >> x;
424     ifstream file; file.open("doctor.txt", ios::out | ios::in);
425     file.seekg(0);
426
427     int ID, age, exp, count = 0;
428     string fname, lname, ci, qua, spe;
429
430     while (file >> ID >> fname >> lname >> age >> qua >> spe >> exp
        >> ci)
431     {
432

```



```

433     if (ID == x)
434     {
435         cout << "\n\n\t\t\t\t\t1.ID:" << ID << endl
436             << "\t\t\t\t\t2.First Name:" << fname << endl
437             << "\t\t\t\t\t3.Last Name:" << lname << endl
438             << "\t\t\t\t\t4.Age:" << age << endl
439             << "\t\t\t\t\t5.Qualification:" << qua << endl
440             << "\t\t\t\t\t6.Specialization:" << spe << endl
441             << "\t\t\t\t\t7.Experience:" << exp << endl
442             << "\t\t\t\t\t8.City:" << ci << endl << endl;
443         count++;
444     }
445 }
446 file.close();
447 if (count == 0)
448     cout << "\n\n\t\t\t\t\tNo matching records found!" << endl;
449
450 cout << "\t\t\t\t\t" << "
-----" << endl;
451
452 cout << "\n\n\t\t\t\t\tEnter 1 to return to Doctor Database\n\n\t
\t\t\t\t\tEnter 2 to Exit." << endl;
453 cout << "\n\n\t\t\t\t\t";
454 int c;
455 cin >> c;
456 if (c == 1) {
457     clear_screen();
458     getDoctorDatabase();
459 }
460
461 else
462     exit(0);
463
464 }
465
466 // Display Doctor Functions End
467 // -----
468
469
470
471 //the Delete Doctor function
472 // -----
473
474
475 void deleteDoc() {
476     string x;
477     cout << "\n\n\t\t\t\t\tEnter the ID of the Doctor whose profile
         you want to Edit: " ;
478
479     cin >> x;
480     fstream fileObj("doctor.txt");
481     fileObj.seekg(0);
482
483     int age, exp, count = 0;
484     string ID, fname, lname, ci, qua, spe;
485     while (fileObj >> ID >> fname >> lname >> age >> qua >> spe >>
         exp >> ci)

```



```

541         tempObj << line << endl << fname1 << endl
542             << lname1 << endl << age1 << endl << qua1
543             << endl << spe1 << endl << exp1 << endl
544             << ci1 << endl;
545     }
546 }
547
548 file.close();
549 tempObj.close();
550 remove("doctor.txt");
551 int result;
552 char oldname[] = "copy.txt";
553 char newname[] = "doctor.txt";
554 result = rename( oldname , newname );
555 clear_screen();
556 cout << "\n\t\t\t\t\tFile successfully deleted" << endl;
557
558 }
559 clear_screen();
560
561 cout << "\t\t\t\t\t" << "
-----" << endl;
562
563 cout << "\n\n\t\t\t\t\tEnter 1 to return to Doctor Database\n\n
\t\t\t\t\tEnter 2 to Exit." << endl;
564 cout << "\n\t\t\t\t\t";
565 int c;
566 cin >> c;
567 if (c == 1) {
568     clear_screen();
569     getDoctorDatabase();
570 }
571
572 else
573     exit(0);
574
575 }
576
577 // Delete Doctor Functions Ends Here
578 // -----
579
580
581
582
583
584 //the Display DataBase Function
585 //-----
586
587
588
589
590
591 void dispDatabase() {
592     fstream fileObj("doctor.txt");
593     fileObj.seekg(0);
594     cout << "\t\t\t\t\tDOCTOR DATABASE" << endl << endl;
595     int age, exp, count = 0;

```

```

596 string ID, fname, lname, ci, qua, spe;
597 while (fileObj >> ID >> fname >> lname >> age >> qua >> spe >>
    exp >> ci)
598 { count++;
599   cout << "\t\t\t\t\tDoctor Profile:" << count << endl;
600   cout << "\n\t\t\t\t\t1.ID:" << ID << endl
601       << "\t\t\t\t\t2.First Name:" << fname << endl
602       << "\t\t\t\t\t3.Last Name:" << lname << endl
603       << "\t\t\t\t\t4.Age:" << age << endl
604       << "\t\t\t\t\t5.Qualification:" << qua << endl
605       << "\t\t\t\t\t6.Specialization:" << spe << endl
606       << "\t\t\t\t\t7.Experience:" << exp << endl
607       << "\t\t\t\t\t8.City:" << ci << endl << endl;
608
609 }
610
611 if (count == 0) {
612   cout << "\n\t\t\t\t\tNo matching records found!" << endl;
613 }
614
615 cout << "\t\t\t\t\t" << "
    -----" << endl;
616
617
618 cout << "\n\n\t\t\t\t\tEnter 1 to return to Doctor Database\n\n\t
    \t\t\t\t\tEnter 2 to Exit." << endl;
619 cout << "\n\t\t\t\t\t";
620 int c;
621 cin >> c;
622 if (c == 1) {
623   clear_screen();
624   getDoctorDatabase();
625 }
626
627 else
628   exit(0);
629 }
630
631 // Display Database Function Ends Here
632 //-----
633
634
635
636
637
638 //Total NUmber Of Doctors function
639 // -----
640
641
642 void numberofDocs() {
643
644   fstream fileObj("doctor.txt");
645   fileObj.seekg(0);
646   int age, exp, count = 0;
647   string ID, fname, lname, ci, qua, spe;
648   while (fileObj >> ID >> fname >> lname >> age >> qua >> spe >>
       exp >> ci)

```

```

649 { count++;
650 }
651 cout << "\n\n\t\t\t\t\tThe Total number of doctors in the
        hospital=" << count << endl << endl;
652
653 cout << "\t\t\t\t\t" << "
        -----" << endl;
654
655 cout << "\n\n\t\t\t\t\t\t\tEnter 1 to return to Doctor Database\n\n
        \t\t\t\t\t\t\tEnter 2 to Exit." << endl;
656 cout << "\n\n\t\t\t\t\t\t\t";
657 int c;
658 cin >> c;
659 if (c == 1) {
660     clear_screen();
661     getDoctorDatabase();
662 }
663
664 else
665     exit(0);
666 }
667 //Total NUmber Of Doctors function Ends Here
668 // -----

```

```

1
2 //Patient Class
3 // -----
4 class patient {
5 public:
6     string fname, lname, occupation, p_city, dis, addDate, relDate;
7     int p_age, p_ID;
8     long double phnumber, bill;
9     string getDept();
10    friend void getDoctor();
11    friend void addPat();
12    friend void editPat(patient &pat);
13    friend void displayPat();
14    friend void deletePat();
15    friend void dispPatDatabase();
16    friend void numberOfPats();
17    friend void getPatientDatabase();
18
19 };
20
21 //-----
22
23
24
25 // Department Function
26 //-----
27
28
29 string patient::getDept() {
30     string sp;
31     cout << "\t\t\t\t\t\t\t1.GENERAL_MEDICINE" << endl;
32     cout << "\t\t\t\t\t\t\t2.NEUROLOGY" << endl;
33     cout << "\t\t\t\t\t\t\t3.ONCOLOGY" << endl;
34     cout << "\t\t\t\t\t\t\t4.HAEMATOLOGY" << endl;
35     cout << "\t\t\t\t\t\t\t5.GASTROENTEROLOGY" << endl;
36     cout << "\t\t\t\t\t\t\t6.GYNAECOLOGY " << endl << endl;
37     int s;
38     cout << "\t\t\t\t\t\t\t";
39     cin >> s;
40     switch (s) {
41
42     case 1: {
43         sp = "GENERAL_MEDICINE";
44         break;
45     }
46     case 2: {
47         sp = "NEUROLOGY";
48         break;
49     }
50     case 3: {
51         sp = "ONCOLOGY";
52         break;
53     }
54     case 4: {
55         sp = "HAEMATOLOGY";
56         break;
57     }

```

```

58     case 5: {
59         sp = "GASTROENTEROLOGY";
60         break;
61     }
62     case 6: {
63         sp = "GYNAECOLOGY ";
64         break;
65     }
66     default: {
67         cout << "\nCome on!Enter a valid option." << endl;
68     }
69 }
70
71 }
72 return sp;
73 }
74 //-----
75
76
77
78 // Get Doctor Function
79 //-----
80
81
82 void getDoctor() {
83     patient p;
84     string dept;
85     cout << "\n\t\t\t\t\tEnter the kind of specialization you are
86         looking for:" << endl << endl;
87     dept = p.getDept();
88     fstream fileObj("doctor.txt");
89     fileObj.seekg(0);
90
91     int age, exp, count = 0;
92     string ID, fname, lname, ci, qua, spe;
93     while (fileObj >> ID >> fname >> lname >> age >> qua >> spe >>
94         exp >> ci)
95     {
96         if (spe == dept) {
97             cout << "\n\t\t\t\t\tThe doctors available with " << dept <<
98                 " specialization are:" << endl << endl;
99             cout << "\n\t\t\t\t\t1.ID:" << ID << endl
100                 << "\t\t\t\t\t2.First Name:" << fname << endl
101                 << "\t\t\t\t\t3.Last Name:" << lname << endl
102                 << "\t\t\t\t\t4.Age:" << age << endl
103                 << "\t\t\t\t\t5.Qualification:" << qua << endl
104                 << "\t\t\t\t\t6.Specialization:" << spe << endl
105                 << "\t\t\t\t\t7.Experience:" << exp << endl
106                 << "\t\t\t\t\t8.City:" << ci << endl << endl;
107             count++;
108         }
109     }
110
111     fileObj.close();
112     if (count == 0) {
113         cout << "\t\t\t\t\tNo doctors with this specialization found!"
114             << endl;

```

```

111 }
112 cout << "\t\t\t\t\t" << "
    -----" << endl;
113
114
115 cout << "\n\n\t\t\t\t\tEnter 1 to return to Patient Database\n\t\t\t\t\tEnter 2 to Exit." << endl;
116 cout << "\n\t\t\t\t\t";
117 int c;
118 cin >> c;
119 if (c == 1) {
120     clear_screen();
121     getPatientDatabase();
122 }
123
124 else
125     exit(0);
126 }
127 // Get Doctor Functions End Here
128 //
129
130
131
132 // Add patient Function
133 //-----
134
135
136
137 void addPat() {
138
139     patient p;
140     cout << "\n\t\t\t\t\tFill up the following details" << endl;
141     cout << "\t\t
    -----
    " << endl;
142
143     cout << "\n\t\t\t\t\tID: ";
144     cin >> p.p_ID;
145     cout << "\n\t\t\t\t\tFirst Name: ";
146     cin >> p.fname;
147     cout << "\n\t\t\t\t\tLast Name: " ;
148     cin >> p.lname;
149     cout << "\n\t\t\t\t\tAge: " ;
150     cin >> p.p_age;
151     cout << "\n\t\t\t\t\tPhone No: " ;
152     cin >> p.phnumber;
153     cout << "\n\t\t\t\t\tOccupation: " ;
154     cin >> p.occupation;
155     cout << "\n\t\t\t\t\tCity: ";
156     cin >> p.p_city;
157     cout << "\n\t\t\t\t\tDisease/Symptoms: ";
158     cin >> p.dis;
159     cout << "\n\t\t\t\t\tAdmission date (DD/MM/YYYY): " ;
160     cin >> p.addDate;
161     cout << "\n\t\t\t\t\tRelease date (DD/MM/YYYY): " ;
162     cin >> p.relDate;
163     cout << "\n\t\t\t\t\tTotal Bill generated: " ;

```



```

164     cin >> p.bill;
165     cout << "\n\t\t\t\t\tKind of Specialization required: " << endl
        ;
166     string dept = p.getDept();
167     clear_screen();
168     fstream patObj;
169     patObj.open("patient.txt", ios::app );
170     patObj.seekp (0, ios::end);
171     patObj << p.p_ID << endl << p.fname << endl << p.lname << endl
172     << p.p_age << endl << p.phnumber << endl << p.occupation << endl
173     << p.p_city << endl << p.dis << endl << p.addDate << endl
174     << p.relDate << endl << p.bill << endl << dept << endl;
175     patObj.close();
176
177
178     cout << "\n\t\t\t\t\tNew Patient profile created successfully!"
        << endl << endl;
179
180     cout << "\n\t\t\t\t\t" << "
        -----" << endl;
181
182     cout << "\n\t\t\t\t\tEnter 1 to return to Patient Database\n\t\t\t\t\t
        \t\t\t\t\tEnter 2 to Exit." << endl;
183     cout << "\t\t\t\t\t";
184     int c;
185     cin >> c;
186     if (c == 1) {
187         clear_screen();
188         getPatientDatabase();
189     }
190
191     else
192         exit(0);
193 }
194
195 // Add Patient Ends Here
196 //-----
197
198
199
200
201
202
203
204
205 // Edit Patient Detail
206 //-----
207
208
209 void editPat(patient &pat)
210 {
211     int x;
212     cout << "\n\n\t\t\t\t\tEnter the ID of the Patient whose profile
        you want to Edit: " ;
213     cin >> x;
214     fstream patObj("patient.txt");
215     patObj.seekg(0);

```

```

216 string fname, lname, occupation, p_city, dis, addDate, relDate,
    dept;
217 int p_age, p_ID, count = 0;
218 long double phnumber, bill;
219 while (patObj >> p_ID >> fname >> lname >> p_age >> phnumber
220 >> occupation >> p_city >> dis >> addDate >> relDate >> bill >>
    dept)
221 {
222     if (p_ID == x) {
223         cout << "\n\n\t\t\t\t\t1.ID:" << p_ID << endl
224             << "\t\t\t\t\t2.First Name:" << fname << endl
225             << "\t\t\t\t\t3.Last Name:" << lname << endl
226             << "\t\t\t\t\t4.Age" << p_age << endl
227             << "\t\t\t\t\t5.Phone No.:" << phnumber << endl
228             << "\t\t\t\t\t6.Occupation:" << occupation << endl
229             << "\t\t\t\t\t7.City:" << p_city << endl
230             << "\t\t\t\t\t8.Disease/Symptoms:" << dis << endl
231             << "\t\t\t\t\t9.Admission date(DD/MM/YYYY):" << addDate <<
            endl
232             << "\t\t\t\t\t10.Release date(DD/MM/YYYY):" << relDate <<
            endl
233             << "\t\t\t\t\t11.Total Bill generated:" << bill << endl
234             << "\t\t\t\t\t12.Kind of Specialization required:" << dept
            << endl << endl;
235         break;
236     }
237 }
238
239 patObj.close();
240 if (count == 0)
241 {
242     cout << "\n\t\t\t\t\t\t\tNo matching records found!" << endl;
243     cout << "\n\t\t\t\t\t\t\t" << "
    -----" << endl;
244
245     cout << "\n\n\t\t\t\t\t\t\tEnter 1 to return to Patient Database\
    n\n\t\t\t\t\t\t\tEnter 2 to Exit." << endl;
246     cout << "\t\t\t\t\t\t\t";
247     int c;
248     cin >> c;
249     if (c == 1) {
250         clear_screen();
251         getPatientDatabase();
252     }
253     else
254         exit(0);
255 }
256
257
258 fstream file("patient.txt");
259 file.seekg(0, ios::beg);
260 file.seekg(0);
261 int line;
262 ofstream tempObj;
263 tempObj.open("copy2.txt");
264 tempObj.seekp(0);
265 int skip = 0;

```

```

266 string fname1, lname1, occupation1, p_city1, dis1, addDate1,
    relDate1, dept1;
267 int p_age1;
268 long double phnumber1, bill1;
269 file.seekg(0); file.seekg(0, ios::cur);
270
271 while (file >> line >> fname1 >> lname1 >> p_age1 >> phnumber1 >>
    occupation1 >> p_city1 >> dis1 >> addDate1 >> relDate1 >>
    bill1 >> dept1)
272 {
273     if (line != x) {
274         tempObj << line << endl << fname1 << endl << lname1
275             << endl << p_age1 << endl << phnumber1 << endl << occupation1
276             << endl << p_city1 << endl << dis1 << endl << addDate1 <<
                endl
277             << relDate1 << endl << bill1 << endl << dept1 << endl;
278     }
279 }
280
281 file.close();
282 tempObj.close();
283 remove("patient.txt");
284 int result;
285 char oldname[] = "copy2.txt";
286 char newname[] = "patient.txt";
287 result = rename( oldname , newname );
288 //datatransfer ends
289 int edit;
290 cout << "\t\t\t\t\tEnter number corresponding to the Field you
    want to Edit: ";
291 cin >> edit;
292 switch (edit)
293 {
294     case 1: {
295         cout << "\n\t\t\t\t\tID : " ;
296         cin >> p_ID;
297         break;
298     }
299     case 2: {
300         cout << "\n\t\t\t\t\tFirst Name:" ;
301         cin >> fname;
302
303         break;
304     }
305     case 3: {
306         cout << "\n\t\t\t\t\tLast Name:" ;
307         cin >> lname;
308
309         break;
310     }
311     case 4: {
312         cout << "\n\t\t\t\t\tAge:" ;
313         cin >> p_age;
314         break;
315     }
316     case 5: {
317         cout << "\n\t\t\t\t\tPhone No.:" ;

```

```

318     cin >> phnumber;
319     break;
320 }
321 case 6: {
322     cout << "\n\t\t\t\t\tOccupation:";
323     cin >> occupation;
324     break;
325 }
326 case 7: {
327     cout << "\n\t\t\t\t\tCity:" ;
328     cin >> p_city;
329     break;
330 }
331
332 case 8: {
333     cout << "\n\t\t\t\t\tDisease/Symptoms:" ;
334     cin >> dis;
335     break;
336 }
337 case 9: {
338     cout << "\n\t\t\t\t\tAdmission date (DD/MM/YYYY):" ;
339     cin >> addDate;
340     break;
341 }
342 case 10:
343 {
344     cout << "\n\t\t\t\t\tRelease date (DD/MM/YYYY):" ;
345     cin >> relDate;
346 }
347 case 11: {
348     cout << "\n\t\t\t\t\tTotal Bill generated:" ;
349     cin >> bill;
350     break;
351 }
352 case 12: {
353     cout << "\n\t\t\t\t\tKind of Specialization required:" ;
354     dept = pat.getDept();
355     break;
356 }
357 default: {
358     cout << "\n\t\t\t\t\tInvalid Input!" << endl;
359     cout << "\n\n\t\t\t\t\tEnter 1 to return to Doctor Database\n\n\t\t\t\t\tEnter 2 to Exit." << endl;
360     cout << "\t\t\t\t\t";
361     int c;
362     cin >> c;
363     if (c == 1) {
364         clear_screen();
365         // getDoctorDatabase();
366         getPatientDatabase();
367     }
368 }
369
370 else
371     exit(0);
372 }
373 }

```

```

374
375
376
377 clear_screen();
378 cout << "\t\t\t\t\t-----Updated Profile-----"
    << endl << endl;
379 cout << "\n\n\t\t\t\t\t1.ID:" << p_ID << endl
380     << "\t\t\t\t\t2.First Name:" << fname << endl
381     << "\t\t\t\t\t3.Last Name:" << lname << endl
382     << "\t\t\t\t\t4.Age" << p_age << endl
383     << "\t\t\t\t\t5.Phone No.:" << phnumber << endl
384     << "\t\t\t\t\t6.Occupation:" << occupation << endl
385     << "\t\t\t\t\t7.City:" << p_city << endl
386     << "\t\t\t\t\t8.Disease/Symptoms:" << dis << endl
387     << "\t\t\t\t\t9.Admission date(DD/MM/YYYY):" << addDate <<
    endl
388     << "\t\t\t\t\t10.Release date(DD/MM/YYYY):" << relDate <<
    endl
389     << "\t\t\t\t\t11.Total Bill generated:" << bill << endl
390     << "\t\t\t\t\t12.Kind of Specialization required:" << dept
    << endl << endl;
391 fstream newObj;
392 newObj.open("patient.txt", ios::app);
393 newObj.seekp (0, ios::end);
394 newObj << p_ID << endl << fname << endl << lname << endl
395 << p_age << endl << phnumber << endl << occupation << endl
396 << p_city << endl << dis << endl << addDate << endl
397 << relDate << endl << bill << endl << dept << endl;
398 newObj.close();
399
400 //after completion
401 cout << "\n\t\t\t\t\t" << "
    -----" << endl;
402
403
404 cout << "\n\n\t\t\t\t\tEnter 1 to return to Patient Database\n\n\t\t\t\t\tEnter 2 to Exit." << endl;
405 cout << "\n\t\t\t\t\t";
406 int c;
407 cin >> c;
408 if (c == 1) {
409     clear_screen();
410     getPatientDatabase();
411 }
412
413 else
414     exit(0);
415
416 }
417
418
419 // Edit Patient Detail Function Ends Here
420 //-----
421
422
423
424

```

```

425
426
427
428
429 //the Display Particular Patient Function
430 //-----
431
432
433 void displayPat()
434 {
435     int x;
436     cout << "\n\n\t\t\t\t\tEnter the ID of the Patient whose profile
         you want to Edit: " ;
437     cin >> x;
438     fstream patObj("patient.txt");
439     patObj.seekg(0);
440     string fname, lname, occupation, p_city, dis, addDate, relDate,
         dept;
441     int p_age, p_ID, count = 0;
442     long double phnumber, bill;
443     while (patObj >> p_ID >> fname >> lname >> p_age >> phnumber >>
         occupation >> p_city >> dis >> addDate >> relDate >> bill >>
         dept)
444     {
445         if (p_ID == x) {
446             cout << "\n\n\t\t\t\t\t1.ID:" << p_ID << endl
447                 << "\t\t\t\t\t2.First Name:" << fname << endl
448                 << "\t\t\t\t\t3.Last Name:" << lname << endl
449                 << "\t\t\t\t\t4.Age" << p_age << endl
450                 << "\t\t\t\t\t5.Phone No.:" << phnumber << endl
451                 << "\t\t\t\t\t6.Occupation:" << occupation << endl
452                 << "\t\t\t\t\t7.City:" << p_city << endl
453                 << "\t\t\t\t\t8.Disease/Symptoms:" << dis << endl
454                 << "\t\t\t\t\t9.Admission date(DD/MM/YYYY):" << addDate <<
         endl
455                 << "\t\t\t\t\t10.Release date(DD/MM/YYYY):" << relDate <<
         endl
456                 << "\t\t\t\t\t11.Total Bill generated:" << bill << endl
457                 << "\t\t\t\t\t12.Kind of Specialization required:" << dept
         << endl << endl;
458             count++;
459             break;
460         }
461     }
462
463     patObj.close();
464     if (count == 0)
465         cout << "\n\n\t\t\t\t\tNo matching records found!" << endl;
466
467     cout << "\t\t\t\t\t" << "
         -----" << endl;
468
469     cout << "\n\n\t\t\t\t\tEnter 1 to return to Patient Database\n\n\t\t\t\t\tEnter 2 to Exit." << endl;
470     cout << "\n\n\t\t\t\t\t";
471     int c;
472     cin >> c;

```

```

473     if (c == 1) {
474         clear_screen();
475         getPatientDatabase();
476     }
477
478     else
479         exit(0);
480 }
481 //the Display Particular Patient Function Ends Here
482 //-----
483
484
485
486
487
488 //Delete Patient function
489 //-----
490
491
492
493 void deletePat()
494 {
495     int x;
496     cout << "\n\n\t\t\t\t\tEnter the ID of the Patient whose profile
497             you want to Edit: " ;
498     cin >> x;
499     fstream patObj("patient.txt");
500     patObj.seekg(0);
501     string fname, lname, occupation, p_city, dis, addDate, relDate,
502            dept;
503     int p_age, p_ID, count = 0;
504     long double phnumber, bill;
505     while (patObj >> p_ID >> fname >> lname >> p_age >> phnumber >>
506            occupation >> p_city >> dis >> addDate >> relDate >> bill >>
507            dept)
508     {
509         if (p_ID == x) {
510             cout << "\n\n\t\t\t\t\t1.ID:" << p_ID << endl
511                  << "\t\t\t\t\t2.First Name:" << fname << endl
512                  << "\t\t\t\t\t3.Last Name:" << lname << endl
513                  << "\t\t\t\t\t4.Age" << p_age << endl
514                  << "\t\t\t\t\t5.Phone No.:" << phnumber << endl
515                  << "\t\t\t\t\t6.Occupation:" << occupation << endl
516                  << "\t\t\t\t\t7.City:" << p_city << endl
517                  << "\t\t\t\t\t8.Disease/Symptoms:" << dis << endl
518                  << "\t\t\t\t\t9.Admission date(DD/MM/YYYY):" << addDate <<
519                  endl
520                  << "\t\t\t\t\t10.Release date(DD/MM/YYYY):" << relDate <<
521                  endl
522                  << "\t\t\t\t\t11.Total Bill generated:" << bill << endl
523                  << "\t\t\t\t\t12.Kind of Specialization required:" << dept
524                  << endl << endl;
525             count++;
526             break;
527         }
528     }
529 }

```

```

523 patObj.close();
524 if (count == 0) {
525     cout << "\n\t\t\t\t\t\t\tNo matching records found!" << endl;
526     cout << "\n\n\t\t\t\t\t\t\tEnter 1 to return to Patient Database\
n\n\t\t\t\t\t\t\tEnter 2 to Exit." << endl;
527     cout << "\t\t\t\t\t\t\t";
528     int c;
529     cin >> c;
530     if (c == 1) {
531         clear_screen();
532         getPatientDatabase();
533     }
534
535     else
536         exit(0);
537 }
538
539 cout << "\t\t\t\t\t\t\tAre you sure you want to delete this profile?\
n\t\t\t\t\t\t\t1.YES\n\t\t\t\t\t\t\t2.NO" << endl;
540 cout << "\n\n\t\t\t\t\t\t\t";
541 int n; cin >> n;
542 if (n == 1)
543 {
544     fstream file("patient.txt");
545     file.seekg(0, ios::beg);
546     file.seekg(0);
547     int line;
548     ofstream tempObj;
549     tempObj.open("copy2.txt");
550     tempObj.seekp(0);
551     int skip = 0;
552     string fname1, lname1, occupation1, p_city1, dis1, addDate1,
relDate1, dept1;
553     int p_age1;
554     long double phnumber1, bill1;
555     file.seekg(0); file.seekg(0, ios::cur);
556
557
558     while (file >> line >> fname1 >> lname1 >> p_age1 >> phnumber1
>> occupation1 >> p_city1 >> dis1 >> addDate1 >> relDate1 >>
bill1 >> dept1)
559     {
560         if (line != x) {
561             tempObj << line << endl << fname1 << endl << lname1
<< endl << p_age1 << endl << phnumber1 << endl <<
occupation1
562             << endl << p_city1 << endl << dis1 << endl << addDate1 <<
endl
563             << relDate1 << endl << bill1 << endl << dept1 << endl;
564         }
565     }
566 }
567
568 file.close();
569 tempObj.close();
570 remove("patient.txt");
571 int result;
572 char oldname[] = "copy2.txt";

```



```

573     char newname[] = "patient.txt";
574     result = rename( oldname , newname );
575     clear_screen();
576     cout << "\n\t\t\t\t\tFile successfully deleted" << endl;
577
578 }
579 clear_screen();
580
581 cout << "\t\t\t\t\t" << "
-----" << endl;
582
583 cout << "\n\n\t\t\t\t\tEnter 1 to return to Patient Database\n\t\t\t\t\tEnter 2 to Exit." << endl;
584 cout << "\t\t\t\t\t\t\t";
585 int c;
586 cin >> c;
587 if (c == 1) {
588     clear_screen();
589     getPatientDatabase();
590 }
591
592
593 else
594     exit(0);
595 }
596 // Delete Patient Function Ends Here
597 //-----
598
599
600
601
602 //the Display Patient Database function
603 //-----
604
605
606 void dispPatDatabase()
607 {
608     fstream Obj("patient.txt");
609     Obj.seekg(0);
610     cout << "\t\t\t\t\tPATIENT DATABASE" << endl << endl;
611
612     string fname, lname, occupation, p_city, dis, addDate, relDate,
        dept;
613     int p_age, p_ID, count = 0;
614     long double phnumber, bill;
615     while (Obj >> p_ID >> fname >> lname >> p_age >> phnumber >>
        occupation >> p_city >> dis >> addDate >> relDate >> bill >>
        dept)
616     { count++;
617         cout << "\n\t\t\t\t\tPatient Profile:" << count << endl;
618         cout << "\n\n\t\t\t\t\t1.ID:" << p_ID << endl
619             << "\t\t\t\t\t2.First Name:" << fname << endl
620             << "\t\t\t\t\t3.Last Name:" << lname << endl
621             << "\t\t\t\t\t4.Age" << p_age << endl
622             << "\t\t\t\t\t5.Phone No.:" << phnumber << endl
623             << "\t\t\t\t\t6.Occupation:" << occupation << endl
624             << "\t\t\t\t\t7.City:" << p_city << endl

```

```

625         << "\t\t\t\t\t8.Disease/Symptoms:" << dis << endl
626         << "\t\t\t\t\t9.Admission date(DD/MM/YYYY):" << addDate <<
        endl
627         << "\t\t\t\t\t10.Release date(DD/MM/YYYY):" << relDate <<
        endl
628         << "\t\t\t\t\t11.Total Bill generated:" << bill << endl
629         << "\t\t\t\t\t12.Kind of Specialization required:" << dept
        << endl << endl;
630
631
632     }
633
634     Obj.close();
635
636     if (count == 0) {
637         cout << "\n\t\t\t\t\tNo matching records found!" << endl;
638     }
639
640     cout << "\t\t\t\t\t" << "
        -----" << endl;
641
642     cout << "\n\n\t\t\t\t\tEnter 1 to return to Patient Database\n\n\t\t\t\t\tEnter 2 to Exit." << endl;
643     cout << "\n\t\t\t\t\t";
644     int c;
645     cin >> c;
646     if (c == 1) {
647         clear_screen();
648         getPatientDatabase();
649     }
650
651     else
652         exit(0);
653 }
654
655
656 //the Display Patient Database Ends Here
657 //-----
658
659
660 // -----
661
662 //Number of Patient function
663 //-----
664
665
666 void numberofPats()
667 {
668
669     fstream Obj("patient.txt");
670     Obj.seekg(0);
671     string fname, lname, occupation, p_city, dis, addDate, relDate,
        dept;
672     int p_age, p_ID, count = 0;
673     long double phnumber, bill;
674     while (Obj >> p_ID >> fname >> lname >> p_age >> phnumber >>
        occupation >> p_city >> dis >> addDate >> relDate >> bill >> dept

```

```

    )
676 {
677     count++;
678 }
679
680 Obj.close();
681 cout << "\n\n\t\t\t\t\tThe Total number of Patients in the
        hospital=" << count << endl << endl;
682
683 cout << "\t\t\t\t\t" << "
        -----" << endl;
684
685 cout << "\n\n\t\t\t\t\t\t\tEnter 1 to return to Patient Database\n\
        n\t\t\t\t\t\t\tEnter 2 to Exit." << endl;
686 cout << "\n\t\t\t\t\t\t\t";
687 int c;
688 cin >> c;
689 if (c == 1) {
690     clear_screen();
691     getPatientDatabase();
692 }
693
694 else
695     exit(0);
696
697 }
698 // Number Of Patient Functions Ends Here
699 //-----

```















```
309     break;
310 }
311 }
312 }
313 void clear_screen()
314 {
315     #ifndef _WIN64
316     system("cls");
317     #else
318     system("clear");
319     #endif
320 }
```