```
1: #include<stdio.h>
 2: #include<windows.h>
 3: #include<stdlib.h>
 4: #include<conio.h>
 5: #define ROWS 30
 6: #define COLS 30
 7: void greetings (void);
 8: void closing (void);
 9: void about (void);
10: void OutRange (void);
11: void Colour (unsigned short colour);
12: void ReturnMenu (void);
13:
14:
15: int choi, p=0;
16: char str[20],c=' ';
17: int DVDCopy[77];
18: char ch, pass[10], ttlRent[20], ICRent[20];
19: char DVDgenre[ROWS][COLS], DVDtitle[ROWS][COLS], custName[ROWS]
20: int ttlRC=0, ttlCust=0;
21: char ICcust[ROWS][COLS], FonCust[ROWS][COLS], WhoCust[ROWS]
22: char username[15], password[12]; //passwordnawi
23:
24: int main()
25: {
26:
        int i, j=0;
27:
28:
        /*LOGIN TO THE PROGRAM*/
29:
        for (i=0;i<=2;i++)
30:
31:
            system("cls");
32:
            printf("LOGIN\n");
33:
           34:
           printf("\nEnter your username:\n");
35:
            scanf("%s",username);
36:
            printf("Enter your password:\n");
37:
           while (j \le 9)
38:
39:
            {
40:
                str[j]=getch();
```

```
41:
                 c=str[j];
42:
                 if(c==13) break;
43:
                 else printf("*");
44:
                 j++;
45:
             }
46:
             str[j]='\0';
47:
             j=0;
48:
49:
50:
             if (strcmp (username, "nawi") == 0)
51:
                 if(strcmp(str,"1234")==0)
52:
53:
                  {
54:
                      greetings();
55:
                      Colour(7);
56:
                      break:
57:
                  }
58:
                 else
59:
60:
                      printf("\nwrong password\n");
                      Sleep (444);
61:
62:
                  }
63:
             }
64:
             else
65:
             {
66:
                 printf("\nUser doesn't exist\n");
67:
                 Sleep (592);
68:
             }
69:
70:
         }
71:
72:
        if (i>2)
                          //if exceeds more than 2 times, program
73:
         {
74:
             system("cls");
75:
             printf("Too many attempts!");
76:
             Sleep (999);
77:
             printf("\nProgram will be terminate! \n");
78:
             Sleep (900);
79:
             closing();
80:
             return 0;
```

```
81:
         }
 82:
 83:
         /*MAIN MENU*/
 84:
 85:
         do //do closing
 86:
 87:
 88:
         do //main menu
 89:
 90:
         system("cls");
         printf("DVD RENTAL SHOP\n======Main Menu======\n");
 91:
 92:
         printf("\t 1. CUSTOMER\n\t 2. DVD\n\t 3. RENTAL\n\t 4. A
 93:
 94:
         printf("Enter your choice : ");
 95:
         scanf("%d", &choi);
 96:
 97:
         while((choi<0 || choi>5))
 98:
 99:
100:
             OutRange();
             scanf("%d", &choi);
101:
102:
         }
103:
104:
         system("cls");
105:
106:
107:
         /*FIRST MENU*/
108:
         //CUSTOMER MENU
109:
110:
         if (choi == 1)
         //MAIN->CUSTOMERMENU
111:
112:
             printf("DVD RENTAL SHOP\n======Customer Menu======
113:
114:
             printf ("\t 1. ADD NEW CUSTOMER\n\t 2. DISPLAY CUSTOMER\n\t
115:
116:
             printf("Enter your choice : ");
             scanf("%d", &choi);
117:
118:
119:
             while ((choi<0 | | choi>2) && (choi!=5))
120:
             {
```

```
121:
                  OutRange();
122:
                  scanf("%d", &choi);
123:
              }
124:
              system("cls");
125:
              if(choi==1)
126:
              //MAIN->CUSTOMERMENU->ADD NEW CUSTOMER
127:
128:
                  char dcs= 'y';
                  while (dcs == 'y' || dcs == 'Y')
129:
130:
131:
                      fflush (stdin);
132:
                      printf("===ADD NEW CUSTOMER===\n");
                      printf("Customer #%d\n\n", ttlCust+1);
133:
134:
                      printf("Customer name: "); //get customer name: ");
135:
                      gets(custName[ttlCust]);
136:
                      fflush(stdin);
                      printf("IC Number: ");
137:
                      scanf("%s", ICcust[ttlCust]); //get ic num
138:
139:
                      fflush(stdin);
140:
                      printf("Address: ");
                      gets(AddressCust[ttlCust]); //get address
141:
142:
                      fflush(stdin);
143:
                      printf("Telephone Number: ");
                      scanf("%s", FonCust[ttlCust]); //get telepi
144:
145:
146:
                      int sc;
147:
                      Colour(6);
                      printf("data saving"); //saving animation .
148:
149:
                      for (sc=0; sc<3; sc++)</pre>
150:
151:
                          printf(" . ");
152:
                          Sleep (500);
153:
                      ttlCust=ttlCust+1; //add to TOTAL CUSTOMER
154:
155:
                      system("cls");
156:
157:
                      printf("Record saved!");
158:
                      Sleep (720);
159:
                      Colour(7);
160:
```

```
printf("\nAdd another customer? (y/n):"); /
161:
162:
                      scanf(" %c", &dcs);
163:
                      system("cls");
164:
165:
                      if (dcs == 'y' || dcs== 'Y')
166:
167:
                      else if (dcs == 'n' || dcs == 'N')
168:
                           {
169:
                               Colour(7);
170:
                               printf("\nReturning to main menu");
171:
                               Sleep (499);
172:
                               choi=0;
173:
                      else if (dcs!='y'||dcs!='Y'||dcs!='n'||dcs!=
174:
175:
176:
                               printf("Re-enter\n");
                               scanf(" %c", &dcs);
177:
178:
                               ReturnMenu();
179:
180:
                           }
181:
182:
                      Colour(7);
183:
                  }
184:
              }
185:
              else if (choi==2)
              //MAIN->CUSTOMERMENU->DISPLAY CUSTOMER_INFO
186:
187:
188:
                  int xx,yy=0;
189:
                  char dcsn2;
                  printf("===CUSTOMER INFORMATION===");
190:
                  printf("\n\tCustomer name\t\tIC Number\t\tTeleph
191:
192:
193:
                  for (xx=0; xx<ttlCust; xx++)</pre>
194:
                  {
195:
                      printf("%d\t%-20s\t%-20s\t%-20s\t%-30s\n",xx
196:
                      //display name, ic, telephone, address
197:
198:
                  }
199:
                  printf("\n\t---end-of-list---\n");
200:
```

```
201:
                  fflush(stdin);
202:
                  printf("\nreturn to main menu?(y/n):"); //promp;
203:
                  scanf("%c", &dcsn2);
204:
205:
                  if (dcsn2=='y'||dcsn2=='Y')
206:
207:
                      choi=0;
208:
209:
                  else if (dcsn2=='n'||dcsn2=='N')
210:
211:
                      return 0;
212:
                  else if (dcsn2!='y'||dcsn2!='Y'||dcsn2!='n'||dcs
213:
214:
215:
                      printf("Re-enter\n");
216:
                      scanf(" %c", &dcsn2);
217:
                      ReturnMenu();
218:
                  }
219:
              }
220:
         }
221:
         else if (choi == 2)
222:
223:
         //MAIN->DVDMENU
224:
         {
225:
              {
                  printf("DVD RENTAL SHOP\n======DVD Menu=======
226:
                  printf("\t 1. ADD NEW DVD\n\t 2. DISPLAY DVD STO
227:
228:
229:
                  printf("Enter your choice : ");
230:
                  scanf("%d", &choi);
231:
232:
                  while ((choi<0 | | choi>3) && (choi!=5))
233:
                  {
234:
                      OutRange();
235:
                      scanf("%d", &choi);
236:
                  }
237:
              }
238:
              system("cls");
239:
              if(choi==1)
240:
              //MAIN->DVDMENU->ADD NEW DVD
```

```
241:
             {
                  char dcs= 'y';
242:
243:
                  while (dcs == 'y' || dcs == 'Y')
244:
245:
                      fflush (stdin);
246:
                      printf("===ADD NEW DVD===\n");
247:
                      printf("DVD #%d\n\n", ttlRC+1);
248:
                      printf("DVD Title: ");
249:
                      gets(DVDtitle[ttlRC]); //get DVD Title
250:
                      fflush(stdin);
251:
                      printf("Genre: ");
                      scanf("%s", DVDgenre[ttlRC]); //get genre
252:
253:
                      fflush(stdin);
254:
                      printf("No. of copies: ");
255:
                      scanf("%d", &DVDCopy[ttlRC]); //get no. or
256:
257:
                      int sc;
258:
                      Colour (6);
259:
                      printf("data saving");
260:
                      for (sc=0; sc<3; sc++)</pre>
261:
                      {
262:
                          printf(" . ");
263:
                          Sleep (570);
264:
265:
                      ttlRC=ttlRC+1;
266:
                      system("cls");
267:
268:
                      printf("Record saved!");
269:
                      Sleep (720);
270:
                      Colour(7);
                      printf("\nAdd another DVD? (y/n):");
271:
272:
                      scanf(" %c", &dcs);
273:
                      system("cls");
274:
                      if (dcs == 'y' || dcs== 'Y')
275:
                      else if (dcs == 'n' || dcs == 'N')
276:
277:
                      {
278:
                          Colour(7);
                          printf("\nReturning to main menu");
279:
280:
                          Sleep (499);
```

```
281:
                          choi=0;
282:
                      }
283:
                      else if (dcs!='y'||dcs!='Y'||dcs!='n'||dcs!=
284:
                      {
285:
                          printf("Re-enter\n");
286:
                          scanf(" %c", &dcs);
287:
                          ReturnMenu();
288:
                      }
289:
                  }
290:
                 Colour (7); // 7 PUTIH
291:
292:
             }
293:
             else if (choi==2)
             //MAIN->DVDMENU->SHOW_DVD_INFO
294:
295:
                 int xx,yy=0;
296:
297:
                 char dcsn2;
                 printf("===DVD STOCK===");
298:
299:
                 printf("\n\tDVD Title\t\t No. Of Copies\n");
300:
                 printf("\t----\t\t -----\n");
301:
302:
                 for(xx=0; xx<ttlRC; xx++)</pre>
303:
304:
                      printf("%d\t%-20s\t\t%-20d\n",xx+1, DVDtitle
305:
                      //display title, no. of copies
306:
                 printf("\n\t\t---end-of-list---\n");
307:
308:
                 Sleep (781);
309:
310:
                  fflush(stdin);
                 printf("\nreturn to main menu?(y/n):");
311:
                 scanf("%c", &dcsn2);
312:
313:
314:
                 if(dcsn2=='y'||dcsn2=='Y')
315:
                  {
316:
                      choi=0; //return to MAIN MENU
317:
318:
                 else if (dcsn2=='n'||dcsn2=='N')
319:
                  {
320:
                      return 0;
```

```
321:
                  }
322:
                  else if (dcsn2!='y'||dcsn2!='Y'||dcsn2!='n'||dcs
323:
324:
                      printf("Re-enter\n");
325:
                      scanf(" %c", &dcsn2);
326:
                      ReturnMenu();
327:
                  }
328:
              }
329:
              else if (choi==3)
330:
              //MAIN->DVDMENU->SEARCH GENRE
331:
332:
                  int j, MoviesFound=0;
333:
                  char search[20],dcs;
334:
335:
                  printf("\tSEARCH MENU");
336:
                  printf("\t\n\nEnter genre that you would like to
337:
                  fflush(stdin);
338:
                  gets(search);
339:
340:
                  for (j=0; j<ttlRC; j++)</pre>
341:
342:
                       if(strcmp(DVDgenre[j],search) == 0) //compare
343:
344:
                           MoviesFound=MoviesFound+1;
345:
                           //sum up the DVD with same genre
346:
                       }
347:
348:
                  }
349:
350:
                  if (MoviesFound==0)
351:
352:
                      printf("not found");
353:
354:
                  else
355:
                      printf("Found %d movie(s)", MoviesFound); //
356:
357:
358:
                  fflush(stdin);
359:
360:
                  printf("\nreturn to main menu?(y/n):");
```

```
scanf("%c", &dcs);
361:
362:
363:
                  if(dcs=='y'||dcs=='Y')
364:
                  {
365:
                      printf("ok?");
366:
                      choi=0;
367:
                  }
368:
369:
                  else if (dcs!='y'||dcs!='Y') //||dcs!='n'||dcs
370:
371:
                      printf("Re-enter\n");
372:
                      scanf(" %c", &dcs);
                      ReturnMenu();
373:
374:
                  }
375:
              }
376:
377:
         else if (choi == 3)
378:
         //MAINMENU->RENTAL MENU
379:
380:
              {
381:
             printf("DVD RENTAL SHOP\n======Rental Menu======
382:
             printf("\t 1. ADD NEW RENTAL\n\t 2. DISPLAY DVD CUR
383:
384:
             printf("Enter your choice : ");
385:
             scanf("%d", &choi);
386:
387:
             while((choi<0 || choi>2) && (choi!=5))
388:
389:
                  OutRange();
390:
                  scanf("%d", &choi);
391:
              }
392:
              }
393:
              system("cls");
394:
             if (choi == 1)
395:
              //MAINMENU->RENTAL MENU->NEW RENTAL
396:
                      char titleRented[20][20];
397:
                      int i,k,x, avai=0;
398:
399:
                      char pilih, ICRent[20];
400:
                      int w=0;
```

```
401:
402:
                       while (w==0)
403:
404:
                       printf("IC Number : ");
405:
                       fflush (stdin);
406:
                       gets(ICRent); //get ICnumcust
407:
408:
                       for (x=0;x<ttlCust;x++)</pre>
409:
                            if(strcmp(ICRent,ICcust[x]) == 0) //compa;
410:
411:
412:
                                w=w+1;
413:
                            }
414:
415:
                       }
416:
                       }
417:
418:
                       printf("IC Number verified\n");
419:
                       printf("DVD title : ");
420:
                       fflush(stdin);
421:
                       gets(ttlRent); //get DVD title to rent
422:
423:
424:
                       for (i=0; i<ttlRC; i++)</pre>
425:
                       {
                           if(strcmp(DVDtitle[i],ttlRent) == 0) //cor
426:
427:
428:
                                if(DVDCopy[i]>0)
429:
430:
                                     avai=avai+1;
431:
                                     k=i;
432:
                                }
433:
                            }
434:
                       }
435:
436:
                            if(avai!=0) //found = nonzero
437:
438:
                                printf("DVD available, proceed to re
439:
440:
                                printf("Are you sure to rent '%s' ()
```

```
441:
                               scanf("%c", &pilih);
442:
                               if (pilih == 'y' || pilih == 'Y')
443:
                               {
444:
                                    DVDCopy[k] = DVDCopy[k] - 1;
445:
                                    printf("Customer %s sucessfully
446:
                                    strcpy(WhoCust[p], ICRent);
447:
                                    strcpy(WhoDVD[p], ttlRent);
448:
                                    p=p+1;
449:
                                    Sleep (2500);
450:
                                    ReturnMenu();
451:
                               }
452:
453:
                               else if (pilih=='n' || pilih=='N')
454:
455:
                               {
456:
                                    ReturnMenu();
457:
                               else if (pilih!='y'||pilih!='Y'||pil
458:
459:
                                   printf("Re-enter\n");
460:
461:
                                    scanf(" %c", &pilih);
462:
                                    ReturnMenu();
463:
                               }
464:
465:
                           }
466:
467:
                           else
468:
                           {
                               printf("DVD are out of stock!\n\n")
469:
                               printf("Return to main menu?(y/n):")
470:
471:
472:
                               char dcs;
                               scanf("%c", &dcs);
473:
474:
                               if(dcs=='y'||dcs=='Y')
475:
476:
                                   choi=0;
477:
                               else if (dcs=='n'||dcs=='N')
478:
                               {
479:
                                    closing();
480:
                               }
```

```
481:
                               else if (dcs!='y'||dcs!='Y'||dcs!='1
482:
483:
                                   printf("Re-enter\n");
484:
                                   scanf(" %c", &dcs);
485:
                                   ReturnMenu();
486:
                               }
487:
                           }
488:
489:
490:
491:
                  else if (choi==2)
492:
                  //MAINMENU->RENTAL MENU->DISPLAY DVD RENTED
493:
494:
                      int x;
495:
496:
                      printf("===DVD RENTED===\n");
                      printf("\tTitle\t\tCustomer\n");
497:
498:
                      printf("----\t\t----\n");
499:
500:
                      for (x=0; x<=p; x++)
501:
502:
                          printf("%d\t%-20s\t\t%-20s\n",x+1, WhoD
503:
504:
                      printf("\n\t\t---end-of-list---\n");
505:
                      Sleep (781);
506:
507:
                      printf("\nReturn to main menu? (y/n):");
508:
                      fflush (stdin);
509:
                      char dcs = 'y';
510:
                      scanf("%c", &dcs);
511:
                      if(dcs=='y'||dcs=='Y')
512:
513:
                           choi=0;
514:
                      else if (dcs=='n'||dcs=='N')
515:
                      {
516:
                           closing();
517:
518:
                      else if (dcs!='y'||dcs!='Y'||dcs!='n'||dcs!=
519:
                      {
520:
                          printf("Re-enter\n");
```

```
521:
                          scanf(" %c", &dcs);
522:
                          ReturnMenu();
523:
                      }
524:
525:
                  }
526:
527:
         }
528:
529:
         if (choi == 4)
530:
         //MAINMENU->ABOUT
531:
532:
             about();
             printf("Returning to main menu");
533:
534:
             Sleep (555);
535:
             choi=0;
536:
537:
         }
538:
         if (choi == 5)
539:
         ///MAINMENU->EXIT
540:
541:
             closing();
542:
543:
             return 0;
544:
         }
         }while (choi == 0); //to return to main menu
545:
546:
         }while (choi == 9); //to exit the program
547:
548:
         return 0;
549:
550:
551: }
552:
553: void Colour (unsigned short colour) //colourf(x)
554: {
555:
         HANDLE hcon = GetStdHandle(STD OUTPUT HANDLE);
556:
         SetConsoleTextAttribute(hcon,colour);
557: }
558:
559: //----Greetings
560:
```

```
561: void greetings (void) //welcoming
562: {
563:
         int i, sc;
564:
        char e;
565:
        Colour(2);
        printf("\nWelcome. Login Success!\n\n");
566:
567:
        Sleep (575);
568:
        system("cls");
569:
        Colour(7);
        printf("logging in\t");
570:
571:
         Sleep (150);
572:
         for (sc=0; sc<10; sc++)</pre>
573:
574:
            printf("| ");
575:
            Sleep(99);
576:
         }
577:
        Colour (4);
        printf("%s\t%s\n", TIME , DATE );//display the compa
578:
579:
        Colour(6);
        580:
581:
        printf("*
582:
        printf("*
                               WELCOME
                                          WELCOME
                                                     WELCOME
583:
        printf("*
        printf("***********************************
584:
585:
586:
        Colour (13);
587:
         for (i=0; i<60; i++)
588:
            printf ("|");
589:
590:
            Sleep (35);
591:
         }
592: }
593:
594: void closing (void) //to exit the program
595: {
596:
        int sc;
597:
        Colour (6);
598:
        printf("system closing");
599:
        for(sc=0; sc<3; sc++)</pre>
600:
             {
```

```
printf(" . ");
601:
                 Sleep (499);
602:
603:
             }
604:
         system("cls");
         printf("Succesfully save data to disk");
605:
606:
         Sleep (600);
607:
                           //to clear the screen
         system("cls");
608:
         Colour (7);
         printf("| G | O | O | D | B | Y | E |\n");
609:
610: }
611:
612: void about (void) //to show about
613: {
614:
         printf("\tABOUT\n");
615:
         printf("t----nn");
         printf("DVD RENTAL SOFTWARE 2019\n\n");
616:
         printf ("MUHAMMAD FAREEZ IQMAL\nMUHAMMAD AKMAL NASRULLAH\
617:
618:
         printf("LECTURER: SIR NORHAEDIR");
619:
         printf("\nCFS IIUM 2019");
620:
         printf("\n\nICT PROGRAMMING PROJECT (^o^)\n\n");
621:
         system("pause");
622: }
623:
624: void OutRange (void) //display message when out of range
625: {
         printf("Out of range!\n*Refer number to list above* ");
626:
627:
         Sleep (565);
628:
         printf("Please re-enter : ");
629:
630: }
631:
632: void ReturnMenu (void) //to back to main menu
633: {
634:
         printf("Returning to main menu...");
635:
         Sleep (1000);
636:
         choi=0:
637: }
638: //end > <
639:
```