

```
1 #ifndef VIEW_H
2 #define VIEW_H
3
4 #include <conio.h>
5 #include <stdbool.h>
6 #include <stdlib.h>
7
8 #include "H_Controller.c"
9 #include "H_Dictionary.h"
10 #include "H_Model.h"
11
12 void showEmployerMenu(Dictionary *D)
13 {
14     int temp;
15     int empID;
16     char period[MONTH];
17     bool In = true, In2 = true, In3 = true, In4 = true, In5 = true, In6 = true,
18         In7 = true, In8 = true, In9 = true, In10 = true, In11 = true;
19
20     while (In)
21     {
22         system("cls");
23         if (debug)
24         {
25             displayDictionariesCount(*D);
26         }
27         header();
28
29         if (debugMenu)
30         {
31             printf(" DEBUG MODE\n");
32             printf(" [-6] (Debug) Debug All\n");
33             printf(" [-5] (Debug) Attendance\n");
34             printf(" [-4] (Debug) Bonus\n");
35             printf(" [-3] (Debug) JobInformation\n");
36             printf(" [-2] (Debug) Salary\n");
37             printf(" [-1] (Debug) User\n\n");
38         }
39
40         printf(" CREATE\n\n");
41         printf(" [1] Create Employee\n");
42         printf(" [2] Create Monthly Attendance\n");
43         printf(" [3] Create Monthly Bonus\n");
44         printf(" [4] Issue Employee Salary\n\n");
45
46         printf(" VIEW / UPDATE / DELETE\n\n");
47         printf(" [5] Employee Attendance\n");
48         printf(" [6] Employee Profile\n");
49         printf(" [7] Employee Job Information\n");
50         printf(" [8] Employee Bonus\n");
51         printf(" [9] Employee Salary\n");
52         printf(" [0] Save and Exit\n");
53         printf(" _____\n\n");
54         printf(" Select Option: ");
55         scanf("%d", &temp);
56         fflush(stdin);
57
58         switch (temp)
59         {
```

```
60
61     case -6: // C-6
62     {
63         debugAll(*D);
64         printf(" _____\n\n");
65         printf(" *Press any key to continue...* ");
66         getch();
67         break;
68     }
69
70     // Debug Attendance -- Complete
71     case -5: // C-5
72     {
73         debugAttendance(*D);
74         printf(" _____\n\n");
75         printf(" *Press any key to continue...* ");
76         getch();
77         break;
78     }
79
80     // Debug Bonus -- Complete
81     case -4: // C-4
82     {
83         debugBonus(*D);
84         printf(" _____\n\n");
85         printf(" *Press any key to continue...* ");
86         getch();
87         break;
88     }
89
90     // Debug Job Information -- Complete
91     case -3: // C-3
92     {
93         debugJobInformation(*D);
94         printf(" _____\n\n");
95         printf(" *Press any key to continue...* ");
96         getch();
97         break;
98     }
99
100    // Debug Salary -- Complete
101    case -2: // C-2
102    {
103        debugSalary(*D);
104        printf(" _____\n\n");
105        printf(" *Press any key to continue...* ");
106        getch();
107        break;
108    }
109
110    // Debug User -- Complete
111    case -1: // C-1
112    {
113        debugUser(*D);
114        printf(" _____\n\n");
115        printf(" *Press any key to continue...* ");
116        getch();
117        break;
118    }
119
```

```
120 // Push to Dictionary -- Complete
121 case 0: // C0
122 {
123     if (pushUserD(*D) && pushJobInformationD(*D) &&
124         pushIssueSalaryD(*D) && pushBonusD(*D) &&
125         pushAttendanceD(*D)) // pushUserD(*D) &&
126     {
127         printf("\n Your changes have been successfully saved.");
128     }
129     else
130     {
131         printf("\n ERROR: Failed to saved changes.");
132     }
133     In = false;
134     break;
135 }
136
137 // Create Employee -- Complete
138 case 1: // C1
139 {
140     system("cls");
141     if (debug == true)
142     {
143         displayDictionariesCount(*D);
144     }
145     header();
146     printf(" CREATE EMPLOYEE INFORMATION\n\n");
147     Model_User employeeInfo = createUserInformation(*D);
148     Model_JobInformation jobInfo =
149         createJobInformation(*D, employeeInfo.userID);
150
151     if (insertUser(D, employeeInfo) &&
152         insertJobInformation(D, jobInfo))
153     {
154         printf(" \n Employee information successfully created.\n");
155     }
156     else
157     {
158         printf(" \n ERROR: Failed to create employee information.\n");
159     }
160
161     printf(" _____\n\n");
162     printf(" *Press any key to continue...* ");
163     getch();
164     break;
165 }
166
167 // Create Attendance -- Complete
168 case 2: // C2
169 {
170     system("cls");
171     if (debug == true)
172     {
173         displayDictionariesCount(*D);
174     }
175     header();
176     printf(" CREATE MONTHLY ATTENDANCE\n\n");
177
178     printf(" Enter Employee ID: ");
179     scanf("%d", &empID);
```

```
180     printf(" Enter period (mm/yy): ");
181     scanf("%s", &period);
182
183     Model_Attendance sa = createAttendance(*D, empID, period);
184     if (sa.attendanceID == -1)
185     {
186         printf(" \n ERROR: Employee ID #%d not found. \n", empID);
187     }
188     else
189     {
190         printf(" \n Creating Employee Attendance... \n");
191
192         if (insertAttendance(D, sa))
193         {
194             printf(" \n Employee #%d attendance for period %s successfully
created.\n", empID, period);
195         }
196         else
197         {
198             printf(" \n ERROR: Employee #%d attendance for period %s
already exists.\n", empID, period);
199         }
200     }
201     printf(" _____\n\n");
202     printf(" *Press any key to continue...* ");
203     getch();
204     break;
205 }
206
207 // Create Bonus -- Complete
208 case 3: // C3
209 {
210     system("cls");
211     if (debug == true)
212     {
213         displayDictionariesCount(*D);
214     }
215     header();
216     printf(" CREATE MONTHLY BONUS\n\n");
217
218     printf(" Employee ID: ");
219     scanf("%d", &empID);
220     fflush(stdin);
221     printf(" Period (mm/yy): ");
222     scanf("%s", &period);
223     fflush(stdin);
224
225     Model_Bonus empBonus = createBonus(*D, empID, period);
226     if (empBonus.bonusID == -1)
227     {
228         printf(" \n ERROR: Employee ID #%d not found. \n", empID);
229     }
230     else
231     {
232         printf(" \n Creating Employee Bonus... \n");
233         if (insertBonus(D, empBonus))
234         {
235             printf("\n Employee #%d bonus for period %s successfully
created.\n", empID, period);
236         }
237     }
238 }
```

```

237         else
238         {
239             printf("\n ERROR: Employee #%d bonus for period %s already
exists.\n", empID, period);
240         }
241     }
242
243     printf(" _____\n\n");
244     printf(" *Press any key to continue...* ");
245     getch();
246     break;
247 }
248
249 // Issue Employee Salary & Tax -- TODO (after case 7)
250 case 4: // C4
251 {
252     system("cls");
253     if (debug == true)
254     {
255         displayDictionariesCount(*D);
256     }
257     header();
258     printf(" ISSUE EMPLOYEE SALARY\n\n");
259     printf(" Enter Employee ID: ");
260     scanf("%d", &empID);
261     printf(" Enter period (mm/yy): ");
262     scanf("%s", &period);
263     fflush(stdin);
264
265     if (issueSalary(D, empID, period))
266     {
267         printf("\n Employee #%d salary for period %s successfully
issued.\n", empID, period);
268     }
269     else
270     {
271         printf("\n ERROR: Failed to issue employee #%d salary for period
#%s.\n", empID, period);
272     }
273     printf(
274         " _____"
275         "\n\n");
276     printf(" *Press any key to continue...* ");
277     getch();
278     break;
279 }
280
281 // Employee Attendance -- Complete
282 case 5: // C5
283 {
284     while (In2)
285     {
286         system("cls");
287         if (debug == true)
288         {
289             displayDictionariesCount(*D);
290         }
291         header();
292
293         printf(" EMPLOYEE ATTENDANCE\n\n");

```

```
294     printf("    [1] View\n");
295     printf("    [2] View All\n");
296     printf("    [3] Update\n");
297     printf("    [4] Delete\n");
298     printf("    [5] Set Attendance\n");
299     printf("    [6] Set Leave\n");
300     printf("    [7] Set Absence\n");
301     printf("    [8] Set Overtime Hours\n");
302     printf("    [0] Back\n");
303     printf("_____\n\n");
304     printf(" Select Option: ");
305     scanf("%d", &temp);
306     fflush(stdin);
307
308     switch (temp)
309     {
310     case 0: // C50
311     {
312         In2 = false;
313         break;
314     }
315
316     case 1: // C51
317     {
318         system("cls");
319         if (debug == true)
320         {
321             displayDictionariesCount(*D);
322         }
323         header();
324         printf(" Employee Attendance > View\n\n");
325
326         printf(" VIEW EMPLOYEE ATTENDANCE\n\n");
327         printf(" Enter Employee ID: ");
328         scanf("%d", &empID);
329         printf(" Enter Period (mm/yy): ");
330         scanf("%s", &period);
331         fflush(stdin);
332
333         displayAttendance(D, empID, period);
334         printf(" *Press any key to continue...* ");
335         getch();
336         break;
337     }
338
339     case 2: // C52
340     {
341         system("cls");
342         if (debug == true)
343         {
344             displayDictionariesCount(*D);
345         }
346         header();
347         printf(" Employee Attendance > View All\n\n");
348
349         printf(" VIEW ALL EMPLOYEE ATTENDANCE\n\n");
350         printf(" Enter period (mm/yy): ");
351         scanf("%s", &period);
352         displayAllAttendance(*D, period);
```

```

353
354     printf(" *Press any key to continue...* ");
355     getch();
356     break;
357 }
358
359 case 3: // C53
360 {
361     char period[20];
362     system("cls");
363     if (debug == true)
364     {
365         displayDictionariesCount(*D);
366     }
367     header();
368     printf(" Employee Attendance > Update\n\n");
369
370     printf(" UPDATE EMPLOYEE ATTENDANCE\n\n");
371     printf(" Enter Employee ID: ");
372     scanf("%d", &empID);
373     printf(" Enter Period (mm/yy): ");
374     scanf("%s", &period);
375     fflush(stdin);
376
377     Model_Attendance *empAttInfo = searchAttendance(*D, empID,
period);
378
379     if (empAttInfo)
380     {
381         while (In9)
382         {
383             system("cls");
384             if (debug == true)
385             {
386                 displayDictionariesCount(*D);
387             }
388             header();
389             printf(" Employee Attendance > Update\n\n");
390             printf(" UPDATE EMPLOYEE ATTENDANCE\n");
391             displayAttendance(D, empID, period);
392
393             printf(" [1] No. of Present Days\n");
394             printf(" [2] No. of Absents\n");
395             printf(" [3] No. of Leaves\n");
396             printf(" [4] No. of Overtime Hours\n");
397             printf(" [5] Period (mm/yy)\n");
398             printf(" [6] Update All\n");
399             printf(" [0] Back\n");
400             printf(" _____\n\n");
401             printf(" Select Option: ");
402             scanf("%d", &temp);
403             fflush(stdin);
404
405             switch (temp)
406             {
407                 case 0: // C530
408                 {
409                     In9 = false;
410                     break;
411                 }

```

```
411 case 1: // C531
412 {
413     system("cls");
414     if (debug == true)
415     {
416         displayDictionariesCount(*D);
417     }
418     header();
419     printf(" Employee Attendance > Update\n\n");
420     printf(" UPDATE EMPLOYEE ATTENDANCE\n");
421     displayAttendance(D, empID, period);
422
423     printf(" Enter new number of present days: ");
424     scanf("%d", &empAttInfo->present);
425     fflush(stdin);
426
427     printf("
428                                     \n\n");
429     printf(" *Press any key to continue...* ");
430     getch();
431     break;
432 }
433 case 2: // C532
434 {
435     system("cls");
436     if (debug == true)
437     {
438         displayDictionariesCount(*D);
439     }
440     header();
441     printf(" Employee Attendance > Update\n\n");
442     printf(" UPDATE EMPLOYEE ATTENDANCE\n");
443     displayAttendance(D, empID, period);
444
445     printf(" Enter new number of absent days: ");
446     scanf("%d", &empAttInfo->absent);
447     fflush(stdin);
448
449     printf("
450                                     \n\n");
451     printf(" *Press any key to continue...* ");
452     getch();
453     break;
454 }
455 case 3: // C533
456 {
457     system("cls");
458     if (debug == true)
459     {
460         displayDictionariesCount(*D);
461     }
462     header();
463     printf(" Employee Attendance > Update\n\n");
464     printf(" UPDATE EMPLOYEE ATTENDANCE\n");
465     displayAttendance(D, empID, period);
466
467     printf(
468         " Enter new number of leave "
469         "days: ");
470     scanf("%d", &empAttInfo->leave);
```



```
469         fflush(stdin);
470
471         printf("
_____\n\n");
472         printf(" *Press any key to continue...* ");
473         getch();
474         break;
475     }
476     system("cls");
477     if (debug == true)
478     {
479         displayDictionariesCount(*D);
480     }
481     header();
482     printf(" Employee Attendance > Update\n\n");
483     printf(" UPDATE EMPLOYEE ATTENDANCE\n");
484     displayAttendance(D, empID, period);
485
486     case 4: // C534
487     {
488         system("cls");
489         if (debug == true)
490         {
491             displayDictionariesCount(*D);
492         }
493         header();
494         printf(" Employee Attendance > Update\n\n");
495         printf(" UPDATE EMPLOYEE ATTENDANCE\n");
496         displayAttendance(D, empID, period);
497
498         printf(" Enter new number of overtime hours: ");
499         scanf("%d", &empAttInfo->overtime);
500         fflush(stdin);
501
502         printf("
_____\n\n");
503         printf(" *Press any key to continue...* ");
504         getch();
505         break;
506     }
507     system("cls");
508     if (debug == true)
509     {
510         displayDictionariesCount(*D);
511     }
512     header();
513     printf(" Employee Attendance > Update\n\n");
514     printf(" UPDATE EMPLOYEE ATTENDANCE\n");
515     displayAttendance(D, empID, period);
516
517     case 5: // C535
518     {
519         system("cls");
520         if (debug == true)
521         {
522             displayDictionariesCount(*D);
523         }
524         header();
525         printf(" Employee Attendance > Update\n\n");
526         printf(" UPDATE EMPLOYEE ATTENDANCE\n");
```

```
527         displayAttendance(D, empID, period);
528
529         printf(" Enter new period (mm/yy): ");
530         scanf("%s", &empAttInfo->period);
531         fflush(stdin);
532
533         printf("
534                                     \n\n");
535         printf(" *Press any key to continue...* ");
536         getch();
537         break;
538     }
539     system("cls");
540     if (debug == true)
541     {
542         displayDictionariesCount(*D);
543     }
544     header();
545     printf(" Employee Attendance > Update\n\n");
546     printf(" UPDATE EMPLOYEE ATTENDANCE\n");
547     displayAttendance(D, empID, period);
548
549 case 6: // C53
550 {
551     system("cls");
552     if (debug == true)
553     {
554         displayDictionariesCount(*D);
555     }
556     header();
557     printf(" Employee Attendance > Update \n\n");
558     printf(" UPDATE EMPLOYEE ATTENDANCE\n");
559     displayAttendance(D, empID, period);
560
561     printf(" Enter new number of present days: ");
562     scanf("%d", &empAttInfo->present);
563     fflush(stdin);
564
565     printf(" Enter new number of absent days: ");
566     scanf("%d", &empAttInfo->absent);
567     fflush(stdin);
568
569     printf(" Enter new number of leave days: ");
570     scanf("%d", &empAttInfo->leave);
571     fflush(stdin);
572
573     printf(" Enter new number of overtime hours: ");
574     scanf("%d", &empAttInfo->overtime);
575     fflush(stdin);
576
577     printf(" Enter new period (mm/yy): ");
578     scanf("%s", &empAttInfo->period);
579     fflush(stdin);
580
581     printf("
582                                     \n\n");
583     printf(" *Press any key to continue...* ");
584     getch();
585     break;
586 }
```

```

585
586         default:
587         {
588             invalidInput();
589             break;
590         }
591         printf(" *Press any key to continue...* ");
592         getch();
593     }
594 }
595 }
596 else
597 {
598     printf("\n ERROR: Employee #%d attendance for period %s does
not exist.\n", empID, period);
599     In9 = false;
600     printf("
_____\n\n");
601     printf(" *Press any key to continue...* ");
602     getch();
603 }
604
605     In9 = true;
606     break;
607 }
608
609 case 4: // C54
610 {
611     system("cls");
612     if (debug == true)
613     {
614         displayDictionariesCount(*D);
615     }
616     header();
617     printf(" Employee Attendance > Delete\n\n");
618
619     printf(" DELETE EMPLOYEE ATTENDANCE\n\n");
620     printf(" Enter Employee ID: ");
621     scanf("%d", &empID);
622     printf(" Enter period (mm/yy): ");
623     scanf("%s", &period);
624     fflush(stdin);
625     if (deleteAttendance(D, empID, period))
626     {
627         printf("\n Employee #%d attendance for period %s
successfully deleted.\n", empID, period);
628     }
629     else
630     {
631         printf("\n ERROR: Employee #%d attendance not found for
period %s.\n", empID, period);
632     }
633     printf("
_____\n\n");
634     printf(" *Press any key to continue...* ");
635     getch();
636     break;
637 }
638
639 case 5: // C55

```

```
640 {
641     system("cls");
642     if (debug == true)
643     {
644         displayDictionariesCount(*D);
645     }
646     header();
647     printf(" Employee Attendance > Set Attendance\n\n");
648
649     printf(" SET EMPLOYEE ATTENDANCE\n\n");
650     printf(" Enter Employee ID: ");
651     scanf("%d", &empID);
652     printf(" Enter Period (mm/yy): ");
653     scanf("%s", &period);
654     fflush(stdin);
655     setPresent(empID, D, period);
656
657     printf("
658                                     \n\n");
659     printf(" *Press any key to continue...* ");
660     getch();
661     break;
662 }
663 case 6: // C56
664 {
665     system("cls");
666     if (debug == true)
667     {
668         displayDictionariesCount(*D);
669     }
670     header();
671     printf(" Employee Attendance > Set Leave\n\n");
672
673     printf(" SET EMPLOYEE LEAVE\n\n");
674     printf(" Enter Employee ID: ");
675     scanf("%d", &empID);
676     printf(" Enter Period (mm/yy): ");
677     scanf("%s", &period);
678     fflush(stdin);
679     setLeave(empID, D, period);
680
681     printf("
682                                     \n\n");
683     printf(" *Press any key to continue...* ");
684     getch();
685     break;
686 }
687 case 7: // C57
688 {
689     system("cls");
690     if (debug == true)
691     {
692         displayDictionariesCount(*D);
693     }
694     header();
695     printf(" Employee Attendance > Set Absence\n\n");
696
697     printf(" SET EMPLOYEE ABSENCE\n\n");
```

```
698         printf(" Enter Employee ID: ");
699         scanf("%d", &empID);
700         printf(" Enter Period (mm/yy): ");
701         scanf("%s", &period);
702         fflush(stdin);
703         setAbsent(empID, D, period);
704
705         printf("
_____\\n\\n");
706         printf(" *Press any key to continue...* ");
707         getch();
708         break;
709     }
710
711     case 8: // C58
712     {
713         system("cls");
714         if (debug == true)
715         {
716             displayDictionariesCount(*D);
717         }
718         header();
719         printf(" Employee Attendance > Set Overtime Hours\\n\\n");
720
721         printf(" SET EMPLOYEE OVERTIME HOURS\\n\\n");
722         printf(" Enter Employee ID: ");
723         scanf("%d", &empID);
724         printf(" Enter Period (mm/yy): ");
725         scanf("%s", &period);
726         fflush(stdin);
727         setOvertime(empID, D, period);
728
729         printf("
_____\\n\\n");
730         printf(" *Press any key to continue...* ");
731         getch();
732         break;
733     }
734
735     default: // C5D
736     {
737         invalidInput();
738         break;
739     }
740 }
741
742 In2 = true;
743 break;
744 }
745
746 // View/Update Employee Profile -- Complete
747 case 6: // C6
748 {
749     while (In3)
750     {
751         system("cls");
752         if (debug == true)
753         {
754             displayDictionariesCount(*D);
755         }
```

```
756     header();
757     printf(" EMPLOYEE PROFILE\n\n");
758
759     printf(" [1] View\n");
760     printf(" [2] View All\n");
761     printf(" [3] Update\n");
762     printf(" [4] Delete\n");
763     printf(" [0] Back\n");
764     printf("
\n\n");
765     printf(" Select Option: ");
766     scanf("%d", &temp);
767     fflush(stdin);
768
769     switch (temp)
770     {
771     case 0: // C60
772     {
773         In3 = false;
774         break;
775     }
776     case 1: // C61
777     {
778         system("cls");
779         if (debug == true)
780         {
781             displayDictionariesCount(*D);
782         }
783         header();
784         printf(" Employee Profile > View\n\n");
785
786         printf(" VIEW EMPLOYEE PROFILE\n\n");
787
788         printf(" Enter Employee ID: ");
789         scanf("%d", &empID);
790         fflush(stdin);
791
792         displayUserInformation(empID, D);
793
794         printf(" *Press any key to continue...* ");
795         getch();
796         break;
797     }
798     case 2: // C62
799     {
800         system("cls");
801         if (debug == true)
802         {
803             displayDictionariesCount(*D);
804         }
805         header();
806         printf(" Employee Profile > View All\n\n");
807
808         printf(" VIEW ALL EMPLOYEE PROFILE\n");
809
810         displayAllUser(*D);
811
812         printf(" *Press any key to continue...* ");
813         getch();
814         break;
```

```
815 }
816 case 3: // C63
817 {
818     system("cls");
819     if (debug == true)
820     {
821         displayDictionariesCount(*D);
822     }
823     header();
824     printf(" Employee Profile > Update\n\n");
825
826     printf(" UPDATE EMPLOYEE PROFILE\n\n");
827     printf(" Enter Employee ID: ");
828     scanf("%d", &empID);
829     fflush(stdin);
830
831     Model_User *empInfo = searchUser(*D, empID);
832     if (empInfo)
833     {
834         while (In6)
835         {
836             system("cls");
837             if (debug == true)
838             {
839                 displayDictionariesCount(*D);
840             }
841             header();
842             printf(" Employee Profile > Update\n\n");
843
844             printf(" UPDATE EMPLOYEE PROFILE\n");
845             displayUserInformation(empID, D);
846
847             printf(" [1] First Name\n");
848             printf(" [2] Last Name \n");
849             printf(" [3] Gender\n");
850             printf(" [4] Date of Birth\n");
851             printf(" [5] Filipino Citizenship\n");
852             printf(" [6] Home Phone\n");
853             printf(" [7] Mobile Phone\n");
854             printf(" [8] Email\n");
855             printf(" [9] Address\n");
856             printf(" [10] User Type\n");
857             printf(" [11] Update All\n");
858             printf(" [0] Back\n");
859             printf("
860             \n\n");
861             printf(" Select Option: ");
862             scanf("%d", &temp);
863             fflush(stdin);
864
865             system("cls");
866             if (debug == true)
867             {
868                 displayDictionariesCount(*D);
869             }
870             header();
871             printf(" Employee Profile > Update\n\n", empID);
872
873             printf(" UPDATE EMPLOYEE PROFILE\n");
874             displayUserInformation(empID, D);
```

```
874
875     switch (temp)
876     {
877     case 0: // C630
878     {
879         In6 = false;
880         break;
881     }
882     case 1: // C631
883     {
884         printf(" Enter new first name: ");
885         scanf("%s", &empInfo->firstName);
886         fflush(stdin);
887         printf("
888         _____\n\n");
889         printf(" *Press any key to continue...* ");
890         getch();
891         break;
892     }
893     case 2: // C632
894     {
895         printf(" Enter new last name: ");
896         scanf("%s", &empInfo->lastName);
897         fflush(stdin);
898         printf("
899         _____\n\n");
900         printf(" *Press any key to continue...* ");
901         getch();
902         break;
903     }
904     case 3: // C633
905     {
906         printf(
907             " Enter new gender [MALE(0) / "
908             "FEMALE(1)]: ");
909         scanf("%u", &empInfo->gender);
910         fflush(stdin);
911         printf("
912         _____\n\n");
913         printf(" *Press any key to continue...* ");
914         getch();
915         break;
916     }
917     case 4: // C634
918     {
919         printf(" Enter new date of birth: ");
920         scanf("%s", &empInfo->dateOfBirth);
921         fflush(stdin);
922         printf("
923         _____\n\n");
924         printf(" *Press any key to continue...* ");
925         getch();
926         break;
927     }
928     case 5: // C635
929     {
930         printf(" Is a Filipino citizen? [NO(0) / YES(1)]:
931         ");
932         scanf("%u", &empInfo->filipinoCitizen);
933         fflush(stdin);
```



```
929         printf("
930         printf(" *Press any key to continue...* ");
931         getch();
932         break;
933     }
934     case 6: // C636
935     {
936         printf(" Enter new home phone: ");
937         scanf("%s", &empInfo->homePhone);
938         fflush(stdin);
939         printf("
940         printf(" *Press any key to continue...* ");
941         getch();
942         break;
943     }
944     case 7: // C637
945     {
946         printf(" Enter new mobile phone: ");
947         scanf("%s", &empInfo->mobilePhone);
948         fflush(stdin);
949         printf("
950         printf(" *Press any key to continue...* ");
951         getch();
952         break;
953     }
954     case 8: // C638
955     {
956         printf(" Enter new email address: ");
957         scanf("%s", &empInfo->emailAddress);
958         fflush(stdin);
959         printf("
960         printf(" *Press any key to continue...* ");
961         getch();
962         break;
963     }
964     case 9: // C639
965     {
966         printf(" Enter new address: ");
967         scanf("%s", &empInfo->address);
968         fflush(stdin);
969         printf("
970         printf(" *Press any key to continue...* ");
971         getch();
972         break;
973     }
974     case 10: // C6310
975     {
976         printf(" Enter new user type [EMPLOYEE(0) /
EMPLOYER(1)]: ");
977         scanf("%u", &empInfo->userType);
978         fflush(stdin);
979         printf("
980         printf(" *Press any key to continue...* ");
981         getch();
```

```

982         break;
983     }
984     case 11: // C6311
985     {
986         printf(" Enter new first name: ");
987         scanf("%s", &empInfo->firstName);
988         fflush(stdin);
989
990         printf(" Enter new last name: ");
991         scanf("%s", &empInfo->lastName);
992         fflush(stdin);
993
994         printf(" Enter new gender [MALE(0) / FEMALE(1)]: ");
995         scanf("%u", &empInfo->gender);
996         fflush(stdin);
997
998         printf(" Enter new date of birth: ");
999         scanf("%s", &empInfo->dateOfBirth);
1000         fflush(stdin);
1001
1002         printf(" Filipino Citizen? [NO(0) / YES(1)]: ");
1003         scanf("%u", &empInfo->filipinoCitizen);
1004         fflush(stdin);
1005
1006         printf(" Enter new home phone: ");
1007         scanf("%s", &empInfo->homePhone);
1008         fflush(stdin);
1009
1010         printf(" Enter new mobile phone: ");
1011         scanf("%s", &empInfo->mobilePhone);
1012         fflush(stdin);
1013
1014         printf(" Enter new email address: ");
1015         scanf("%s", &empInfo->emailAddress);
1016         fflush(stdin);
1017
1018         printf(" Enter new address: ");
1019         scanf("%s", &empInfo->address);
1020         fflush(stdin);
1021
1022         printf(" Enter new user type [EMPLOYEE(0) /
EMPLOYER(1)]: ");
1023         scanf("%u", &empInfo->userType);
1024         fflush(stdin);
1025         break;
1026     }
1027     default: // C63D
1028     {
1029         invalidInput();
1030         break;
1031     }
1032 }
1033 }
1034 }
1035 else
1036 {
1037     printf("\n ERROR: Employee #%d profile not found.\n",
empID);
1038     printf("
\n\n");

```

```
1039         printf(" *Press any key to continue...* ");
1040         getch();
1041         In6 = false;
1042     }
1043
1044     In6 = true;
1045     break;
1046 }
1047 case 4: // C64
1048 {
1049     system("cls");
1050     if (debug == true)
1051     {
1052         displayDictionariesCount(*D);
1053     }
1054     header();
1055     printf(" Employee Profile > Delete\n\n");
1056     printf(" DELETE EMPLOYEE PROFILE\n\n");
1057     printf(" Enter Employee ID: ");
1058     scanf("%d", &empID);
1059     fflush(stdin);
1060
1061     if (deleteUser(D, empID))
1062     {
1063         printf("\n Employee profile successfully deleted.\n");
1064     }
1065     else
1066     {
1067         printf("\n Employee profile not found.\n");
1068     }
1069
1070     printf("
1071         _____\n\n");
1072     printf(" *Press any key to continue...* ");
1073     getch();
1074     break;
1075 }
1076 default: // C6D
1077 {
1078     invalidInput();
1079     break;
1080 }
1081 }
1082 In3 = true;
1083 break;
1084 }
1085
1086 // View/Update Employee Job Information -- Complete
1087 case 7: // C7
1088 {
1089     while (In4)
1090     {
1091         system("cls");
1092         if (debug == true)
1093         {
1094             displayDictionariesCount(*D);
1095         }
1096         header();
1097     }
```

```
1098     printf("  JOB INFORMATION\n\n");
1099     printf("    [1] View All\n");
1100     printf("    [2] View One\n");
1101     printf("    [3] Update\n");
1102     printf("    [4] Delete\n");
1103     printf("    [0] Back\n");
1104     printf("_____ \n\n");
1105     printf("  Select Option: ");
1106
1107     scanf("%d", &temp);
1108     fflush(stdin);
1109
1110     switch (temp)
1111     {
1112     case 0: // C70
1113     {
1114         In4 = false;
1115         break;
1116     }
1117     case 1: // C71
1118     {
1119         system("cls");
1120         if (debug == true)
1121         {
1122             displayDictionariesCount(*D);
1123         }
1124         header();
1125         printf("  Job Information > View All\n\n");
1126
1127         printf("  VIEW JOB INFORMATION\n\n");
1128         fflush(stdin);
1129
1130         displayAllJobInformation(*D);
1131
1132         printf(" *Press any key to continue...* ");
1133         getch();
1134         break;
1135     }
1136     case 2: // C72
1137     {
1138         system("cls");
1139         if (debug == true)
1140         {
1141             displayDictionariesCount(*D);
1142         }
1143         header();
1144         printf("  Job Information > View One\n\n");
1145
1146         printf("  VIEW JOB INFORMATION\n\n");
1147         printf("  Enter Employee ID: ");
1148         scanf("%d", &empID);
1149         fflush(stdin);
1150
1151         displayJobInformation(empID, D);
1152
1153         printf("\n *Press any key to continue...* ");
1154         getch();
1155         break;
1156     }
```

```

1157 case 3: // C73
1158 {
1159     system("cls");
1160     if (debug == true)
1161     {
1162         displayDictionariesCount(*D);
1163     }
1164     header();
1165     printf(" Job Information > Update\n\n");
1166
1167     printf(" UPDATE JOB INFORMATION\n\n");
1168     printf(" Enter Employee ID: ");
1169     scanf("%d", &empID);
1170     fflush(stdin);
1171
1172     Model_JobInformation *jobInfo = searchJobInformation(*D, empID);
1173     if (jobInfo)
1174     {
1175         while (In5)
1176         {
1177             system("cls");
1178             if (debug == true)
1179             {
1180                 displayDictionariesCount(*D);
1181             }
1182             header();
1183             printf(" Job Information > Update\n\n");
1184             printf(" UPDATE JOB INFORMATION\n");
1185             displayJobInformation(empID, D);
1186             printf("\n");
1187             printf(" [1] Job Position\n");
1188             printf(" [2] Job Location\n");
1189             printf(" [3] Job Phone\n");
1190             printf(" [4] Email\n");
1191             printf(" [5] Start Date\n");
1192             printf(" [6] Department\n");
1193             printf(" [7] Basic Salary\n");
1194             printf(" [8] Pagibig Deposit\n");
1195             printf(" [9] Update All\n");
1196             printf(" [0] Back\n");
1197             printf("
1198             \n\n");
1199             printf(" Select Option: ");
1200             scanf("%d", &temp);
1201             fflush(stdin);
1202
1203             system("cls");
1204             if (debug == true)
1205             {
1206                 displayDictionariesCount(*D);
1207             }
1208             header();
1209             printf(" Job Information > Update > Job Position\n\n");
1210             printf(" UPDATE JOB INFORMATION\n");
1211             displayJobInformation(empID, D);
1212             switch (temp)
1213             {
1214             case 0: // C730
1215             {
1216                 In5 = false;

```

```
1216         break;
1217     }
1218     case 1: // C731
1219     {
1220         printf(" Enter new job position: ");
1221         scanf("%s", &jobInfo->jobPosition);
1222         fflush(stdin);
1223
1224         printf("
1225         _____\n\n");
1226         printf(" *Press any key to continue...* ");
1227         getch();
1228         break;
1229     }
1230     case 2: // C732
1231     {
1232         printf(" Enter new job location: ");
1233         scanf("%s", &jobInfo->jobLocation);
1234         fflush(stdin);
1235
1236         printf("
1237         _____\n\n");
1238         printf(" *Press any key to continue...* ");
1239         getch();
1240         break;
1241     }
1242     case 3: // C733
1243     {
1244         printf(" Enter new job phone: ");
1245         scanf("%s", &jobInfo->jobPhone);
1246         fflush(stdin);
1247
1248         printf("
1249         _____\n\n");
1250         printf(" *Press any key to continue...* ");
1251         getch();
1252         break;
1253     }
1254     case 4: // C734
1255     {
1256         printf(" Enter new email: ");
1257         scanf("%s", &jobInfo->jobEmail);
1258         fflush(stdin);
1259
1260         printf("
1261         _____\n\n");
1262         printf(" *Press any key to continue...* ");
1263         getch();
1264         break;
1265     }
1266     case 5: // C735
1267     {
1268         printf(" Enter new start date: ");
1269         scanf("%s", &jobInfo->startDate);
1270         fflush(stdin);
1271
1272         printf("
1273         _____\n\n");
1274         printf(" *Press any key to continue...* ");
1275         getch();
```

```
1271         break;
1272     }
1273     case 6: // C736
1274     {
1275         printf(" Enter new department: ");
1276         scanf("%s", &jobInfo->department);
1277         fflush(stdin);
1278
1279         printf("
1280                                     \n\n");
1281         printf(" *Press any key to continue...* ");
1282         getch();
1283         break;
1284     }
1285     case 7: // C737
1286     {
1287         printf(" Enter new basic salary: ");
1288         scanf("%lf", &jobInfo->basicSalary);
1289         fflush(stdin);
1290
1291         printf("
1292                                     \n\n");
1293         printf(" *Press any key to continue...* ");
1294         getch();
1295         break;
1296     }
1297     case 8: // C738
1298     {
1299         printf(" Enter new pagibig deposit: ");
1300         scanf("%lf", &jobInfo->pagibigDeposit);
1301         fflush(stdin);
1302
1303         printf("
1304                                     \n\n");
1305         printf(" *Press any key to continue...* ");
1306         getch();
1307         break;
1308     }
1309     case 9: // C739
1310     {
1311         printf(" Enter new job position: ");
1312         scanf("%s", &jobInfo->jobPosition);
1313         fflush(stdin);
1314
1315         printf(" Enter new job location: ");
1316         scanf("%s", &jobInfo->jobLocation);
1317         fflush(stdin);
1318
1319         printf(" Enter new job phone: ");
1320         scanf("%s", &jobInfo->jobPhone);
1321         fflush(stdin);
1322
1323         printf(" Enter new email: ");
1324         scanf("%s", &jobInfo->jobEmail);
1325         fflush(stdin);
1326
1327         printf(" Enter new start date: ");
1328         scanf("%s", &jobInfo->startDate);
1329         fflush(stdin);
```

```
1328         printf(" Enter new department: ");
1329         scanf("%s", &jobInfo->department);
1330         fflush(stdin);
1331
1332         printf(" Enter new basic salary: ");
1333         scanf("%lf", &jobInfo->basicSalary);
1334         fflush(stdin);
1335
1336         printf(" Enter new pagibig deposit: ");
1337         scanf("%lf", &jobInfo->pagibigDeposit);
1338         fflush(stdin);
1339
1340         printf("
1341         _____\n\n");
1342         printf(" *Press any key to continue...* ");
1343         getch();
1344         break;
1345     }
1346     default: // C73D
1347     {
1348         invalidInput();
1349         break;
1350     }
1351 }
1352 }
1353 else
1354 {
1355     printf("\n ERROR: Employee #%d job information does not
1356 exist.\n", empID);
1357     printf("
1358     _____\n\n");
1359     printf(" *Press any key to continue...* ");
1360     getch();
1361     In5 = false;
1362 }
1363 In5 = true;
1364 break;
1365 }
1366 case 4: // C74
1367 {
1368     system("cls");
1369     if (debug == true)
1370     {
1371         displayDictionariesCount(*D);
1372     }
1373     header();
1374     printf(" Job Information > Delete\n\n");
1375     printf(" DELETE JOB INFORMATION\n\n");
1376     printf(" Enter Employee ID: ");
1377     scanf("%d", &empID);
1378     fflush(stdin);
1379
1380     if (deleteJobInformation(D, empID))
1381     {
1382         printf("\n Employee job information sucessfully
1383 deleted.\n");
1384     }
1385     else
1386     {
1387     }
```



```
1384         printf("\n ERROR: Employee #%d job information does not\n\n");
1385         exist.\n", empID);
1386     }
1387     printf("
1388                                     \n\n");
1389     printf(" *Press any key to continue...* ");
1390     getch();
1391     break;
1392 }
1393 default: // C7D
1394 {
1395     invalidInput();
1396     break;
1397 }
1398 }
1399 In4 = true;
1400 break;
1401 }
1402
1403 // View/Update Bonus -- Complete
1404 case 8: // C8
1405 {
1406     char period[20];
1407     int bonusID;
1408     int employeeID;
1409     while (In7)
1410     {
1411         system("cls");
1412         if (debug == true)
1413         {
1414             displayDictionariesCount(*D);
1415         }
1416         header();
1417         printf(" EMPLOYEE BONUS\n\n");
1418         printf(" [1] View All\n");
1419         printf(" [2] View One\n");
1420         printf(" [3] Update\n");
1421         printf(" [4] Delete\n");
1422         printf(" [0] Back\n");
1423         printf("
1424                                     \n\n");
1425         printf(" Select Option: ");
1426         scanf("%d", &temp);
1427         fflush(stdin);
1428
1429         switch (temp)
1430         {
1431             case 0: // C80
1432             {
1433                 In7 = false;
1434                 break;
1435             }
1436
1437             case 1: // C81
1438             {
1439                 system("cls");
1440                 if (debug == true)
1441                 {
```

```
1441         displayDictionariesCount(*D);
1442     }
1443     header();
1444     printf(" Employee Bonus > View All\n\n");
1445     printf(" VIEW ALL BONUS INFORMATION\n\n");
1446     printf(" Enter period (mm/yy): ");
1447
1448     scanf("%s", &period);
1449     displayAllBonus(*D, period);
1450
1451     printf(" *Press any key to continue...* ");
1452     getch();
1453     break;
1454 }
1455 case 2: // C82
1456 {
1457     system("cls");
1458     if (debug == true)
1459     {
1460         displayDictionariesCount(*D);
1461     }
1462     header();
1463     printf(" Employee Bonus > View\n\n");
1464
1465     printf(" VIEW BONUS INFORMATION\n\n");
1466     printf(" Enter Employee ID: ");
1467     scanf("%d", &empID);
1468     printf(" Enter Period (mm/yy): ");
1469     scanf("%s", &period);
1470     fflush(stdin);
1471
1472     displayBonus(empID, D, period);
1473
1474     printf(" *Press any key to continue...* ");
1475     getch();
1476     break;
1477 }
1478 case 3: // C83
1479 {
1480     system("cls");
1481     if (debug == true)
1482     {
1483         displayDictionariesCount(*D);
1484     }
1485     header();
1486     printf(" Employee Bonus > Update\n\n");
1487
1488     printf(" UPDATE BONUS INFORMATION\n\n");
1489     printf(" Enter Employee ID: ");
1490     scanf("%d", &empID);
1491     printf(" Enter Period (mm/yy): ");
1492     scanf("%s", &period);
1493     fflush(stdin);
1494
1495     Model_Bonus *bonusInfo =
1496         searchBonus(*D, empID, period);
1497     if (bonusInfo)
1498     {
1499         while (In8)
1500         {
```

```
1501     system("cls");
1502     if (debug == true)
1503     {
1504         displayDictionariesCount(*D);
1505     }
1506     header();
1507     printf(" Employee Bonus > Update\n\n");
1508
1509     printf(" UPDATE BONUS INFORMATION\n\n");
1510     printf(" [1] Bonus Name\n");
1511     printf(" [2] Amount\n");
1512     printf(" [3] Period\n");
1513     printf(" [4] Update All\n");
1514     printf(" [0] Back\n");
1515     printf("
1516     _____\n\n");
1517     printf(" Select Option: ");
1518     scanf("%d", &temp);
1519     fflush(stdin);
1520
1521     system("cls");
1522     if (debug == true)
1523     {
1524         displayDictionariesCount(*D);
1525     }
1526     header();
1527     displayBonus(empID, D, period);
1528
1529     switch (temp)
1530     {
1531     case 0: // C820
1532         In8 = false;
1533         break;
1534     case 1: // C821
1535     {
1536         printf(" Enter new bonus name: ");
1537         scanf("%s", &bonusInfo->bonusName);
1538         fflush(stdin);
1539
1540         printf("
1541         _____\n\n");
1542         printf(" *Press any key to continue...* ");
1543         getch();
1544         break;
1545     }
1546     case 2: // C822
1547     {
1548         printf(" Enter new amount: ");
1549         scanf("%lf", &bonusInfo->amount);
1550         fflush(stdin);
1551
1552         printf("
1553         _____\n\n");
1554         printf(" *Press any key to continue...* ");
1555         getch();
1556         break;
1557     }
1558     case 3: // C823
1559     {
1560         printf(" Enter new period (mm/yy): ");
```

```
1558         scanf("%s", &bonusInfo->period);
1559         fflush(stdin);
1560         strcpy(period, bonusInfo->period);
1561
1562         printf("
1563                                     \n\n");
1564         printf(" *Press any key to continue...* ");
1565         getch();
1566         break;
1567     }
1568     case 4: // C824
1569     {
1570         printf(" Enter new bonus name: ");
1571         scanf("%s", &bonusInfo->bonusName);
1572         fflush(stdin);
1573
1574         printf(" Enter new amount: ");
1575         scanf("%lf", &bonusInfo->amount);
1576         fflush(stdin);
1577
1578         printf(" Enter new period (mm/yy): ");
1579         scanf("%s", &bonusInfo->period);
1580         strcpy(period, bonusInfo->period);
1581         fflush(stdin);
1582         break;
1583     }
1584     default: // C82D
1585     {
1586         invalidInput();
1587         break;
1588     }
1589 }
1590 }
1591 else
1592 {
1593     printf("\n ERROR: Employee #%d bonus not found for period
1594 %s.\n", empID, period);
1595     printf("
1596                                     \n\n");
1597     printf(" *Press any key to continue...* ");
1598     getch();
1599     In8 = false;
1600 }
1601 In8 = true;
1602 break;
1603 }
1604 case 4: // C84
1605 {
1606     system("cls");
1607     if (debug == true)
1608     {
1609         displayDictionariesCount(*D);
1610     }
1611     header();
1612     printf(" Employee Bonus > Delete\n\n");
1613
1614     printf(" DELETE BONUS INFORMATION\n\n");
1615
1616     printf(" Enter Employee ID: ");
```

```
1615         scanf("%d", &employeeID);
1616         fflush(stdin);
1617
1618         printf(" Enter period (mm/yy): ");
1619         scanf("%s", &period);
1620         fflush(stdin);
1621
1622         if (deleteBonus(D, employeeID, period))
1623         {
1624             printf("\n Employee #%d bonus for period %s sucessfully
1625 deleted.\n", employeeID, period);
1626         }
1627         else
1628         {
1629             printf("\n ERROR: Employee #%d bonus not found for period
1630 $s.\n", employeeID, period);
1631         }
1632
1633         printf("
1634                                     \n\n");
1635         printf(" *Press any key to continue...* ");
1636         getch();
1637         break;
1638     }
1639     default: // C8D
1640     {
1641         invalidInput();
1642         break;
1643     }
1644 }
1645 In7 = true;
1646 break;
1647 }
1648 // View/Delete Salary -- TODO
1649 case 9: // C9
1650 {
1651     while (In10)
1652     {
1653         system("cls");
1654         if (debug == true)
1655         {
1656             displayDictionariesCount(*D);
1657         }
1658         header();
1659         printf(" EMPLOYEE SALARY\n\n");
1660         printf(" [1] View All\n");
1661         printf(" [2] View One\n");
1662         printf(" [3] Delete\n");
1663         printf(" [0] Back\n");
1664         printf("
1665                                     \n\n");
1666         printf(" Select Option: ");
1667         scanf("%d", &temp);
1668         fflush(stdin);
1669         switch (temp)
1670         {
1671             case 0: // C90
1672             {
```

```
1671         In10 = false;
1672         break;
1673     }
1674     case 1: // C91
1675     {
1676         system("cls");
1677         if (debug == true)
1678         {
1679             displayDictionariesCount(*D);
1680         }
1681         header();
1682         printf(" Employee Salary > View All\n\n");
1683         printf(" VIEW ALL EMPLOYEE SALARY\n\n");
1684         printf(" Enter Period (mm/yy): ");
1685         scanf("%s", &period);
1686         fflush(stdin);
1687         displayAllSalary(*D, period);
1688
1689         printf("\n *Press any key to continue...* ");
1690         getch();
1691         break;
1692     }
1693     case 2: // C92
1694     {
1695         system("cls");
1696         if (debug == true)
1697         {
1698             displayDictionariesCount(*D);
1699         }
1700         header();
1701         printf(" Employee Salary > View One\n\n");
1702         printf(" VIEW ONE EMPLOYEE SALARY\n\n");
1703         printf(" Enter Employee ID: ");
1704         scanf("%d", &empID);
1705         printf(" Enter Period (mm/yy): ");
1706         scanf("%s", &period);
1707         fflush(stdin);
1708         displayIssueSalary(D, empID, period);
1709
1710         printf(" *Press any key to continue...* ");
1711         getch();
1712         break;
1713     }
1714     case 3: // C93
1715     {
1716         system("cls");
1717         if (debug == true)
1718         {
1719             displayDictionariesCount(*D);
1720         }
1721         header();
1722         printf(" Employee Salary > Delete\n\n");
1723         printf(" DELETE EMPLOYEE SALARY\n\n");
1724         printf(" Enter Employee ID: ");
1725         scanf("%d", &empID);
1726         printf(" Enter Period (mm/yy): ");
1727         scanf("%s", &period);
1728         if (deleteIssueSalary(D, empID, period))
1729         {
```

```

1730         printf("\n Employee #%d salary for period %s deleted
successfully.", empID, period);
1731     }
1732     else
1733     {
1734         printf("\n ERROR: Employee #%d salary not found for period
%s.\n", empID, period);
1735     }
1736
1737     printf(" \n
_____\n\n");
1738     printf(" *Press any key to continue...* ");
1739     getch();
1740     break;
1741 }
1742 default: // C9D
1743 {
1744     invalidInput();
1745     break;
1746 }
1747 }
1748 }
1749 In10 = true;
1750 break;
1751 }
1752
1753 default: // CD
1754 {
1755     invalidInput();
1756     break;
1757 }
1758 }
1759 }
1760 }
1761
1762 void showEmployeeSalary(Dictionary *D)
1763 {
1764     int run = 1;
1765     int empID;
1766     char period[20];
1767
1768     // if (debug)
1769     // {
1770     //     displayDictionariesCount(*D);
1771     // }
1772
1773     while (run)
1774     {
1775         system("cls");
1776         header();
1777         printf(" VIEW EMPLOYEE SALARY\n\n");
1778         printf(" Enter employee ID: ");
1779         scanf("%d", &empID);
1780         fflush(stdin);
1781
1782         printf(" Enter period (mm/yy): ");
1783         scanf("%s", &period);
1784         fflush(stdin);
1785
1786         displayIssueSalary(D, empID, period);

```

```
1787
1788     printf(" [1] Continue\n");
1789     printf(" [0] Exit\n");
1790     printf(" _____\n");
1791     printf("\n Select Option: ");
1792     scanf("%d", &run);
1793     fflush(stdin);
1794 }
1795 }
1796
1797 #endif
1798
```