Title

Hospital Human Resource Management

Background

To do this assignment, following essential knowledge and skills are needed:

(1) Object-Oriented Programming (OOP) paradigm in Java,

(2) Java classes including String, java.util.Date, java.util.ArrayList,

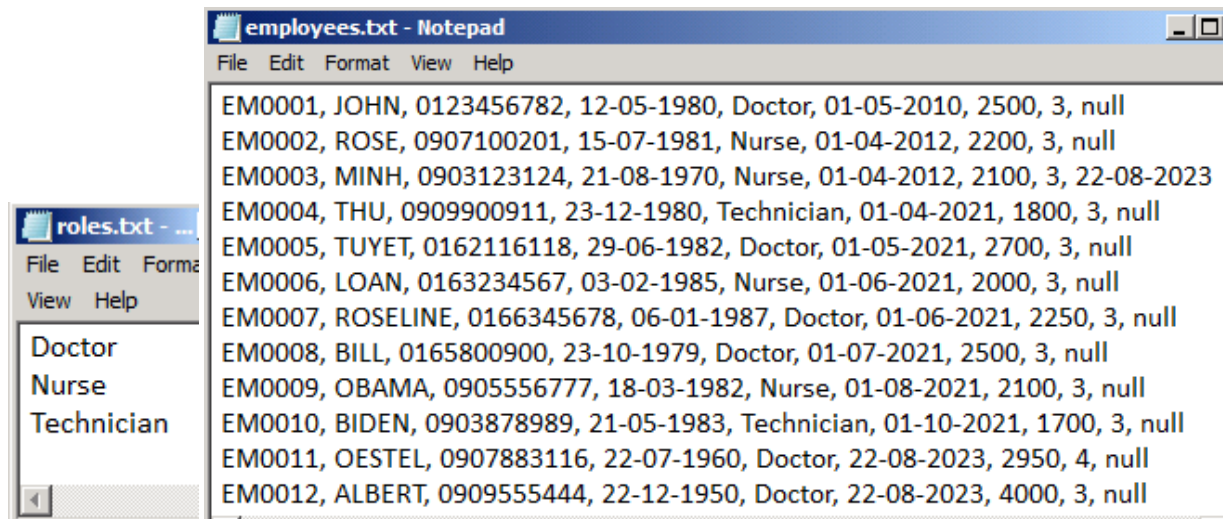(3) Using menu in application.

Program Specifications

We are requested to develop a Java console application for managing employees in the Human Resource Department of a hospital with following specifications:

Employee information

Field	Business rule
String ID	Format "EMxxxx", x is a digit. It can not be duplicated,
String name	Uppercase
String phone	9 to 11 digits
Date bDate	Birth day, input/output format dd-MM-yyyy
String role	Doctor/Nurse/ Technician
Date hiredDate	Hired date, input/output format dd-MM-yyyy
int salary	100..8000 ($)
int contractTime	1..30 (years)
Date resignDate	Ngày thôi việc- , input/output format dd-MM-yyyy

Initial data files

Roles.txt	Containing roles
Employees.txt	Containing initial employees using the format: A line per employee and positions of fields were introduced above.

employees.txt - Notepad

```
EM0001, JOHN, 0123456782, 12-05-1980, Doctor, 01-05-2010, 2500, 3, null
EM0002, ROSE, 0907100201, 15-07-1981, Nurse, 01-04-2012, 2200, 3, null
EM0003, MINH, 0903123124, 21-08-1970, Nurse, 01-04-2012, 2100, 3, 22-08-2023
EM0004, THU, 0909900911, 23-12-1980, Technician, 01-04-2021, 1800, 3, null
EM0005, TUYET, 0162116118, 29-06-1982, Doctor, 01-05-2021, 2700, 3, null
EM0006, LOAN, 0163234567, 03-02-1985, Nurse, 01-06-2021, 2000, 3, null
EM0007, ROSELINE, 0166345678, 06-01-1987, Doctor, 01-06-2021, 2250, 3, null
EM0008, BILL, 0165800900, 23-10-1979, Doctor, 01-07-2021, 2500, 3, null
EM0009, OBAMA, 0905556777, 18-03-1982, Nurse, 01-08-2021, 2100, 3, null
EM0010, BIDEN, 0903878989, 21-05-1983, Technician, 01-10-2021, 1700, 3, null
EM0011, OESTEL, 0907883116, 22-07-1960, Doctor, 22-08-2023, 2950, 4, null
EM0012, ALBERT, 0909555444, 22-12-1950, Doctor, 22-08-2023, 4000, 3, null
```

roles.txt - ...

```
Doctor
Nurse
Technician
```

Menu of the program

```
HOSPITAL HR PROGRAM
1- Add new employee
2- Search employee
3- Remove employee
4- Update employee
5- View all list
6- View take-on list
7- View resign list
8- View doctor list
9- View nurse list
10- View technician list
11- Write list to file
12- Quit the program
Choose (1..12): |
```

Each menu choice should invoke an appropriate function to perform the selected menu item. Your program must display the menu after each task and wait for the user to select another option until the user chooses the last option to quit the program.

Technical Supports

Class Diagram should be used:
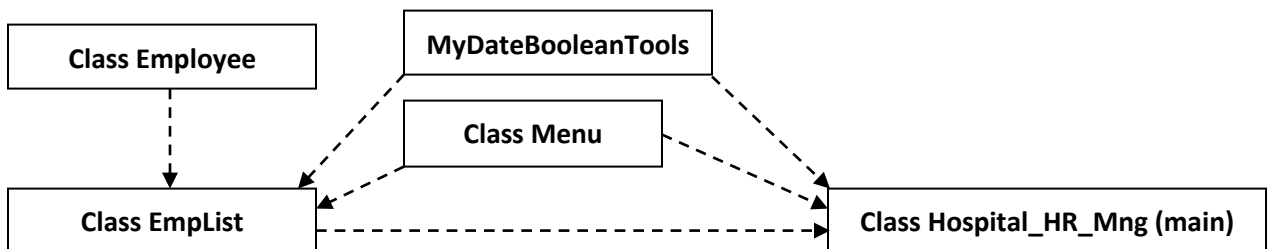
Class Menu	Class for a menu containing options
Class MyDateBooleanTools	Tools for input a Boolean data, converting a data to string and vice versa.
Class Employee	Class for an employee
Class EmpList	Containing current business rules and needed operations for managing employee list.
Class Hispital_HR_Mng	Containing the main method of the required application.

Features and Evaluation:

Function	LOC	Description
Initial	70	Tools for processing Boolean and Date data
Initial	50	The Menu class
Initial	100	Class Employee
Initial	100	The main class
Initial	80	All employees in the file employees.txt must be loaded to the program. We can test this operation

		using the choice **5- View all list**
1	100	**Add new employee** All input must pass all business rules and employee's ID can not be duplicated. When the operation is conducting, if user enters an empty input, the operation must be interrupted. The field **role** should be accepted using a menu.
2	20	**Search employee** User will input an ID and the program will show suitable information: Empty List/ Not found/ employee found.
3	20	**Remove employee** User will input an ID If the list is empty or the ID does not exist, suitable information will be shown: Empty List/ Not Else, the operation conducts only after user's approval. The removal will not physical delete a record from the list but setting up the resignDate field to current time. The resignDate field is "not null" means that the employee was "removed".
4	100	**Update employee** Employee's fields can be updated: name, phone, bDate, role, contract time. All input must pass all business rules and employee's ID can not be duplicated. When the operation is conducting, if user enters an empty input, the operation must be interrupted. The field **role** should be accepted using a menu. Use a menu which allows user choosing only one field per each update.
5	20	**View all list** All employees in the list, including removed employees, are printed out. The following format is used: EM0001, JOHN, 0123456782, 12-05-1980, Doctor, 01-05-2010, 2500, 3, null EM0002, ROSE, 0907100201, 15-07-1981, Nurse, 01-04-2012, 2200, 3, null EM0003, MINH, 0903123124, 21-08-1970, Nurse, 01-04-2012, 2100, 3, 22-08-2023
6	20	**View take-on list** Employees who are still cooperating will be shown using the format above.
7	20	**View resign list** Employees who resigned will be shown using the format above.
8	20	**View doctor list** Doctors, including resigned ones, will be shown using the format above.
9	20	**View nurse list** Nurses, including resigned ones, will be shown using the format above.
10	20	**View technician list** Technicians, including resigned ones, will be shown using the format above.
11	20	**Write list to file** All employees, including resigned ones, will be written to the specified file.
12	20	**Quit the program** If any change is detected, the program will write the list to the specified file after an approval from user.