

```
//Mengzhe fei  
//11200913  
//mef382
```

Person:

The person class has two private variable, string name and int health card number. The class has 5 methods with 1 main method. A setName can set the name of the patient as mutator of name and getName for getting the name of the patient as accessor of name. A getHealthCardNumber as an accessor of health card number. And a constructor of Person() to create a instance. A toString to create a readable and printable string.

The class has to be compiled to into byte-code using the javac compiler. The IntelliJ can be used to show the running. The testing case is based on the class itself. Just running the class itself in IntelliJ will show print the result of each method with println(). All the test case are in the main function, you can just run and see the printed thing.

The program is working perfectly and there is not any knowing problem.

The Ward is a container for Person, so the ward class uses the Person class.

BasicDoctor:

The BasicDoctor class has 1 private variable, string name. The class has 4 methods with 1 main method. A setName can set the name of the doctor as mutator of name and getName for getting the name of the doctor as accessor of name. And a constructor of Person() to create a instance. A toString to create a readable and printable string.

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Ward:

The ward class has 3 private variable, String WardName, Int FirstBedLable and Person Patient. The Class has 10 method and 1 main method. Ward for creating instance, getWardName for getting the ward's name returning a String. And getFirstLable for getting the lable of first bed while getLastLable gets the lable for last bed. LabletoIndex and IndextoLable convert index and lable to each other. Occupied is to determine if the certain is already took. getPatientinBed will first determine if there is a patient in bed and if so it will return the name of patient. setPatientinBed will also determine then if no one is in bed then it will set the bed to a patient(calling person class). Last a to String to return a printable version of all patient name and bed lable.

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```

Person
- name: String
- HealthCardNumber: Int

Set Name (String)
Get Name () : String
Person (String, int)
Get HealthCardNumber () : int
toString () : String

```

```

Ward
Ward Name : String
FirstBedLabel: int
Patient[] : Person

Ward (String, int, int)
getWardName () : String
getFirstLabel () : int
getLastLabel () : int
Label to Index (int) :
Index to Label (int) :
Occupied (int) : Boolean
get Patient in Bed (int) : String
Set Patient in Bed (String, int) :
toString : String

```

```

Basic Doctor
Name: String

Basic Doctor (String)
getName () : String
setName (String) :
toString () : String

```