

Requirements:

A patient record and scheduling system in a doctor's office is used by the receptionists, nurses, and doctors. The receptionists use the system to enter new patient information when first-time patients visit the doctor. They also schedule all appointments. The nurses use the system to keep track of the results of each visit including diagnosis and medications. For each visit, free form text fields are used captures information on diagnosis and treatment. Multiple medications may be prescribed during each visit. The nurses can also access the information to print out a history of patient visits. The doctors primarily use the system to view patient history. The doctors may enter some patient treatment information and prescriptions occasionally, but most frequently they let the nurses enter this information. -- Each patient is assigned to a family. The head of family is responsible for the person with the primary medical coverage. Information about doctors is maintained since a family has a primary care physician, but different doctors may be the ones seeing the patient during the visit.

Class Diagram PlantUML code:

```
@startuml
```

```
class PatientRecordAndSchedulingSystem {  
    enterPatientInformation()  
    scheduleAppointment()  
    trackVisitResults()  
    printPatientHistory()  
}
```

```
class Receptionist {  
    useSystem()  
}
```

```
class Nurse {  
    useSystem()  
    enterTreatmentInformation()  
}
```

```
class Doctor {  
    useSystem()  
    enterPrescription()  
}
```

```
class Patient {  
    +familyHead: Person  
    +primaryCarePhysician: Doctor  
    +medicalCoverage: String  
    +history: List<Visit>  
}
```

```
class Visit {  
    +diagnosis: String  
    +treatment: String
```

```
+medications: List<Medication>
}

class Medication {
    +name: String
    +dosage: String
}

class Person {
    +name: String
    +dateOfBirth: Date
}

Receptionist "1" -- "1" PatientRecordAndSchedulingSystem : uses >
Nurse "1" -- "1" PatientRecordAndSchedulingSystem : uses >
Doctor "1" -- "1" PatientRecordAndSchedulingSystem : uses >
Patient "1" -- "*" Visit : has >
Visit "*" -- "*" Medication : includes >

@enduml
```