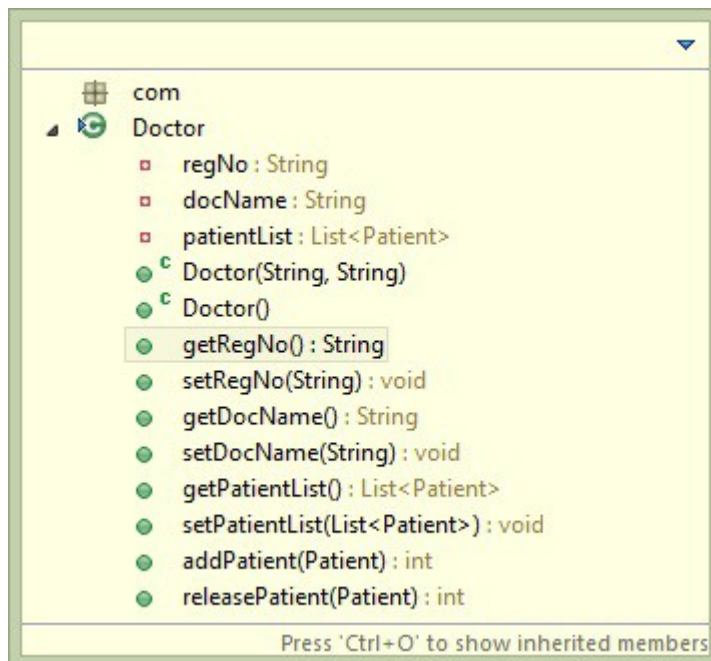


Design Hospital Management System as described by following class outlines

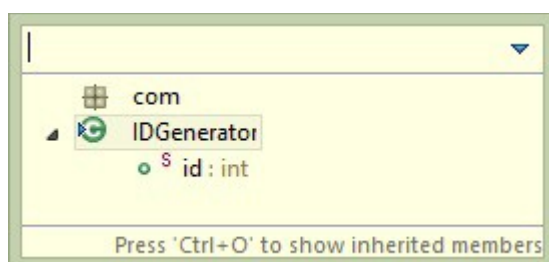
Project Name **HMS_<EMP_ID>_<FIRST_NAME>**. Create all the classes inside **com** package.

1. Create two bean classes with below Class Outline namely Doctor and Patient.

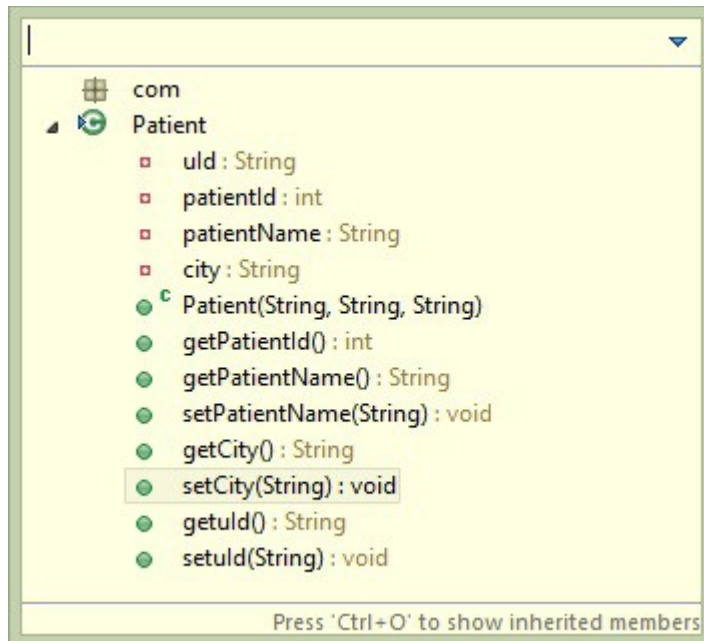
- patientList is the list of the Patients attended by the Doctor.
- **addPatient(Patient p)** method receives one Patient object as argument and adds it to the list and returns the current size of the list.
- **releasePatient(Patient p)** method receives int patientId as argument and releases (remove) the patient from the system (list) and returns the current size of the list.



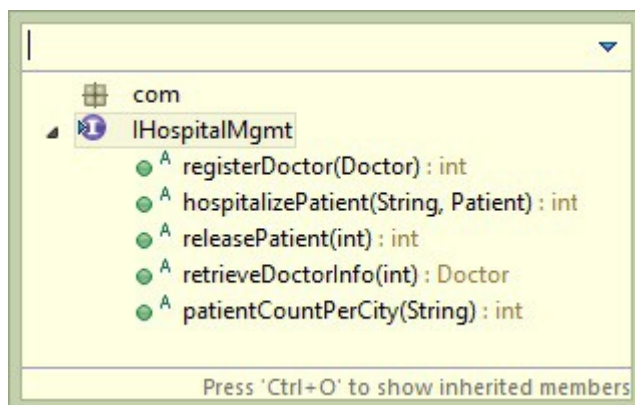
patientId should be generated using **IDGenerator** class outline as given below. Id value should start with 1.



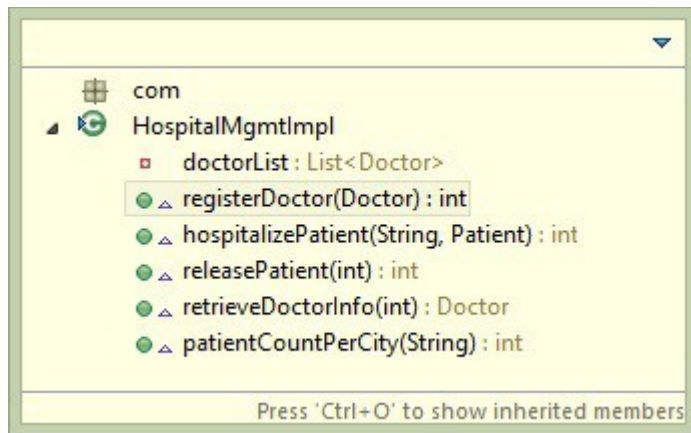
Patient class outline is given below.



2. Create one Interface with following outline



3. Implement interface in `HospitalMgmtImpl` class as shown in below class outline

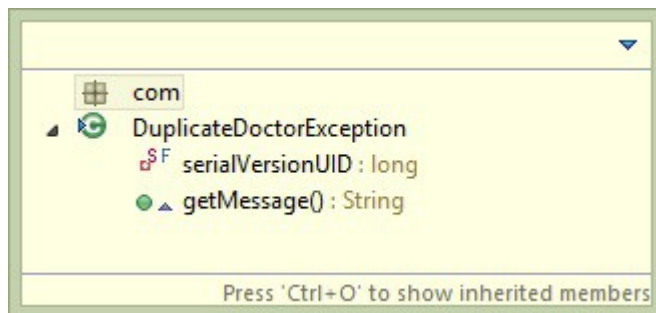


Property and Method description of the above class is given below

- doctorList is the list of Doctor present for the Hospital Network (ArrayList)
- **registerDoctor(Doctor d)** method registers (add) one doctor into system. Returns size of the list on success. -1 in failed scenario. Doctor regNo should be unique unless it should throw **DuplicateDoctorException**. Exception class outline is given at the end.
- **hospitalizePatient(String regNo, Patient p)** method add a patient in the treating Doctor's List identified by the regNo. Returns size of the patientlist on success. -1 in failed scenario. uId is the unique identifier for a Patient (like PAN001). If Patient with same uId is already treated by a Doctor, method will throw **PatientExistException**. Exception class outline is given at the end.
- **releasePatient(int patientId)** method removes one patient based on patientId from system. Returns size of the list after removal if operation is successful. -1 in failed scenario.
- **retrieveDoctorInfo(int patientId)** method returns treating Doctor based on patientId from system. Returns Doctor object from List on success. Blank Doctor object in failed scenario.
- **patientCountPerCity(String city)** method returns count of patients, who are from the specific city given as argument.

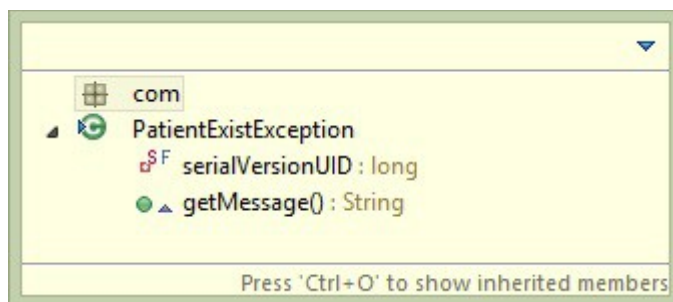
Exception Class Outline is given below

4. DuplicateDoctorException Class Outline



Message: Doctor with same Reg No Exist in System

5. PatientExistException Class Outline



Message: Patient with given PAN already hospitalized