Consider the following class diagram

**Patient**
- Patientid:int
- PatientName:String
- PatientAge:String
+ Patient(id:int,name:string,age:String)
  + getter/Setter
  + display():void

**Ward**
- Wardno:int
- Wardincharge:String
- Patientarray[ ]:patient
+ Ward(wardn:int,wardinchar/String,Size:int)
  + Search(wardno:int):int
  + AddPatient(Patient P):boolean
  + deletePatient(patientid:int):Boolean
  + display():boolean

**General Ward**
- CostBed:double
- FoodCost:int
+ Generalward(wno:int,wardinch:String,cost:double)
  + Charges(Noofdays:int):double
  + display():void

**Special Ward**
- CostBed:double
- FoodCost:int
+ Specialward(wno:int,wardinch:String,cost:double)
  + Charges(Noofdays:int):double
  + display():void
General Ward Class:

Charges: In the charges make the calculation

- Cost of Bed Per day: 3000 SR
- Cost of Food per day: 15000 SR

Cost per day(bed): 30000/noofdays
Cost per day(food): 15000/noofdays

Special Ward Class:

Charges: In the charges make the calculation

- Cost of Bed Per day: 200 SR
- Cost of Food per day: 100 SR

Cost per day(bed): 60000/noofdays
Cost per day(food): 30000/noofdays

check for (dividebyzero Exception)

Ward Class.
The Ward class implements the following methods:

- The constructor Ward(wardn:int, wardinchar: String, Size:int) and throws an exception when the array is created with a negative size. (NegativeArraySizeException)

- The method search () to search an account and returns –1 if it is not founded and its index otherwise.

- The method AddPatient() to add a new Patient and throws an exception when an illegal index term in the array has been accessed. (ArrayIndexOutOfBoundsException)

- The method deletePatient () to remove an Patient and throws an exception when the method has been passed an illegal or inappropriate argument. (IllegalArgumentException)

Question
Implement the UML diagram presented previously and write a main program to show all the methods