

# OO Programming

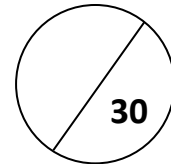
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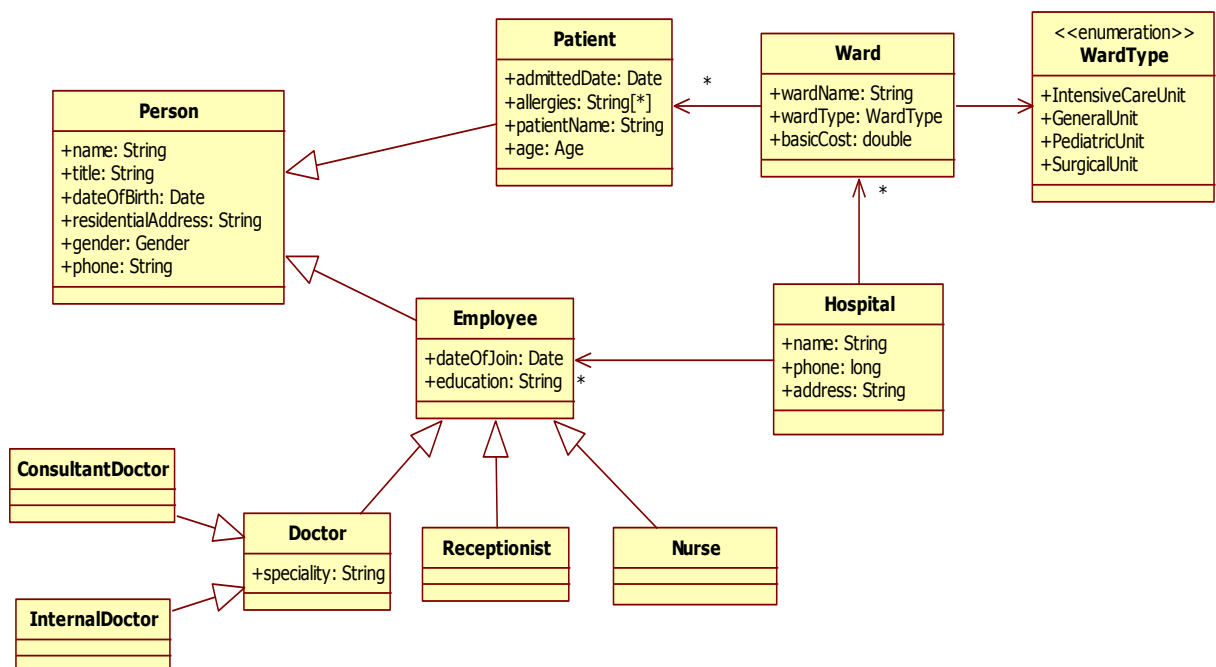
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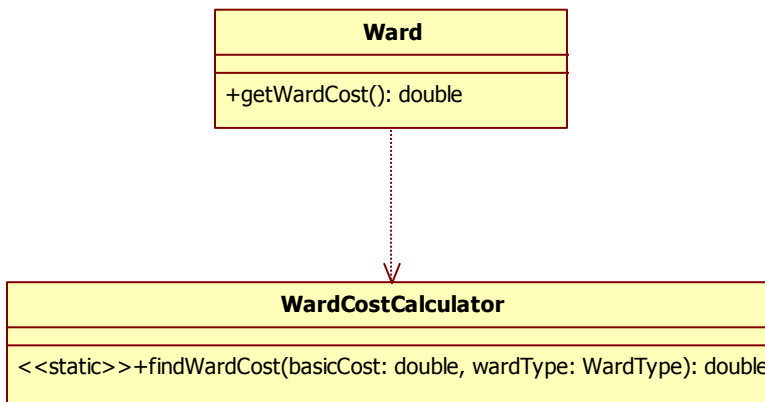
1. A Hospital has many wards and employees. The ward in the hospital can have one or many patients where Doctor, Receptionist and Nurse are different type of employees. A Doctor who work for the hospital can be either junior or consultant where the cost of the ward is calculated based on the wardType(Intensive care ,General,Pediatric or surgical Unit) and basic cost on any ward.



2. The ward cost should be computed based on the following values.

Ward Type	Percentage
General unit	10%
Intensive care unit	20%
Pediatric unit	25%
Surgical unit	40%

To calculate ward cost, a WardCostCalculator is used. The WardCostCalculator has static method called findWardCost() which takes basic cost, type of the ward and returns the computed ward cost.



In Ward class, create a method `getWardCost()`. This method uses **WardCostCalculator** class and invokes the `findWardCost()` method which returns the computed ward cost.

## 3. Implement the following business requirements in the hospital class.

Get Total Patients count.

Get Total Patients by Ward.

Get Total Doctors count.

Get Doctors by specialization.

Get Total Junior Doctors count.

Get Ward Cost by Type.

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Hospital
+getTotalPatients(): int +getTotalPatientsByWard(ward: Ward): int +getTotalDoctors(): int +getDoctorsBySpecialization(specialization: String): Doctors[] +getTotalConsultants(): int +getWardCostByType(WardType type): double

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