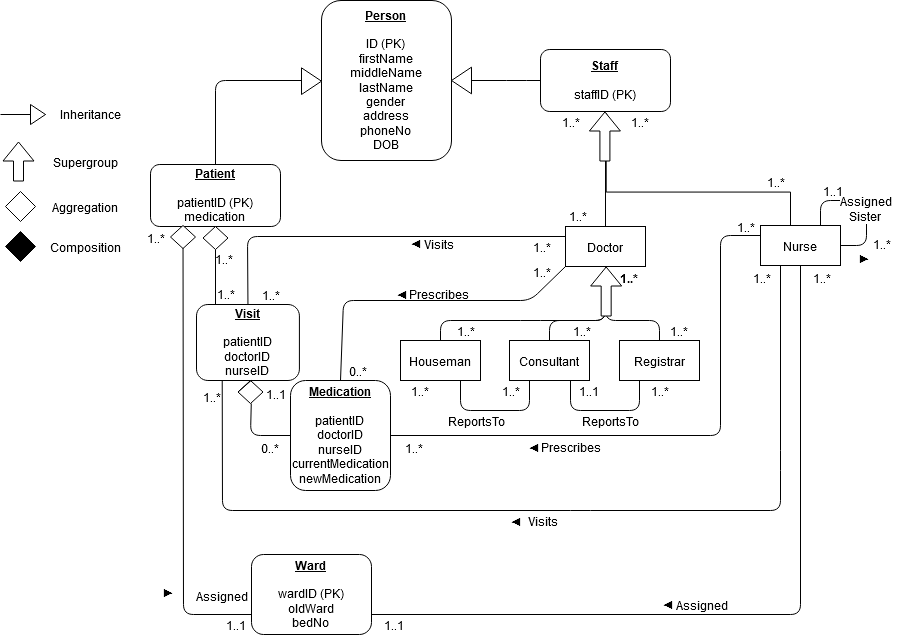
Database Assignment 1

# Class Diagram



# Assumptions

## Person – Staff

A staff member can inherit all of the attributes within the person field.

## Person - Patient

A patient can inherit all of the attributes within the person field.

## Staff – Doctor/Nurse

Doctors and Nurses can inherit the staffID from the staff field.

## Staff (1..\*) - Doctor (1..\*)

There would be many staff members, and many doctors.

## Staff (1..\*) – Nurse (1..\*)

There would be many staff members, and many nurses.

## Nurse (1..\*) – Sister (1..1)

With many nurses, the should only be 1 to be assigned as sister, to supervise the others.

## Nurse (1..\*) – Medication (0..\*)

Many nurses can give medication if required.

## Nurse (1..\*) – Visit (1..1\*

Many nurses will make many visits during a shift.

## Nurse (1..\*) – Ward (1..1)

Many nurses are assigned to a specific ward, which is supervised by their sister.

## Patient (1..\*) - Ward (1..1)

Many patients can be assigned to 1 ward, as they don’t usually transfer wards, only beds.

## Patient (1..\*) – Visit (1..\*)

Many patients would be required to have many visits so the staff can keep track of their progress.

## Doctor (1..\*) – Registrar (1..\*)

Many doctors can have many registrars.

## Doctor (1..\*) – Consultant (1..\*)

Many doctors can have many consultants.

## Doctor (1..\*) – Houseman (1..\*)

Many doctors can have many housemen.

## Houseman (1..\*) – Consultant (1..\*)

The housemen can report to many consultants.

## Registrar (1..\*) – Consultant (1..1)

Many registrars must report to 1 consultant, who has been assigned as their supervisor.

## Doctor (1..\*) – Visit (1..\*)

Many doctors would make many visits to their patients.

## Doctor (1..\*) – Medication (0..\*)

If required, many doctors could have the option to prescribe medication, if it doesn’t conflict with their current medication

## Patient (1..\*) – Visit (1..\*)

Many patients would be required to have many visits so the staff can keep track of their progress.

## Visit (1..1) – Medication (0..\*)

Visits is aggregation of the medication, so would be mandatory, but during the visit not all patients would need medication.

# Operations

|  |
| --- |
| **Person** |
| id: int |
| firstName: string |
| middleName: string |
| lastName: string |
| gender: string |
| address: string |
| phoneNo: int |
| dateOfBirth: date |
| ***getStaffDetails()*** |
| ***getPatientDetails()*** |

|  |
| --- |
| **Patient** |
| patientID: int |
| patientName: string |
| phoneNo: int |
| age: int |
| wardNo: int |
| bedNo: int |
| ***scheduledAppointment()*** |
| ***assignedWard()*** |
| ***assignedBed()*** |
| ***assignedDoctor()*** |
| ***beenTransferred()*** |
| ***oldWard()*** |
| ***oldBed()*** |

|  |
| --- |
| **Nurse** |
| nurseID: int |
| nurseName: string |
| ***assignedSister()*** |
| ***assignedWard()*** |
| ***assignedShifts()*** |
| ***visitPatients()*** |
| ***assignNewMedication()*** |

|  |
| --- |
| **Consultant** |
| doctorID: int |
| name: string |
| phoneNo: int |
| ***assignedPatients()*** |
| ***overseesWards()*** |
| ***getDoctorTeams()*** |

|  |
| --- |
| **Registrar** |
| doctorID: int |
| name: string |
| phoneNo: int |
| ***reportToConsultant()*** |

|  |
| --- |
| **Houseman** |
| doctorID: int |
| name: string |
| phoneNo: int |
| ***reportToConsultants()*** |

|  |
| --- |
| **Staff** |
| staffID: int |

|  |
| --- |
| **Doctor** |
| doctorID: int |
| name: string |
| phoneNo: int |
| ***visitPatients()*** |
| ***assignNewMedication()*** |
| ***reallocateDoctor()*** |
| ***assignNewMedication()*** |

|  |
| --- |
| **Visit** |
| patientID: int |
| doctorID: int |
| nurseID: int |
| **currentMedications()** |
| **assignedMedication()** |

|  |
| --- |
| **Medication** |
| patientID: int |
| doctorID: int |
| nurseID: int |
| currentMedication: string |
| newMedication: string |
| prescribedBy: string |
| **currentMedications()** |
| **assignedMedication()** |

|  |
| --- |
| **Ward** |
| wardID: int |
| oldWard: int |
| bedNo: int |
| oldBed: int |
| **getBedID()** |