Project Part C – Design

Version:

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# Part 1: Table Specification

* Add key information to the specification of each table.

**AFFILIATED\_WITH ( *Physician, Department*, PrimaryAffiliation[1] )**

**Appointments ( AppointmentID, *Patient*, *PrepNurse*, *Physician*, StartDateTime,** **EndDateTime, ExaminationRoom[1] )**

**Blocks ( BlockFloor, BlockCode )**

**Departments ( DepartmentID, Name[30], *Head* )**

**Medications ( Code, Name[30], Brand[30], Description[30] )**

**Nurses ( EmployeeID, Position[30], Registered[1], *Person* )**

**ON\_Call ( *Nurse, BlockFloor, BlockCode*, OnCallStart, OnCallEnd )**

**Patients ( PatientID, InsuranceID, PCP, *Person* )**

**PERSONS ( SSN, FirstName[30], LastName[30], Address1[30], Address2[30], City[30], State[2],** **ZipCode[10], Phone[30] )**

**PHYSICIANS ( EmployeeID, Position[30], *Person* )**

**Prescribes ( *Physician, Patient*, *Medication*, PrescribedDateTime, *Appointment*, Dose[30] )**

**Procedures ( Code, Name[30], Cost )**

**Rooms ( RoomNumber, RoomType[30], *BlockFloor, BlockCode,* Unavailable[1] )**

**Stays ( StayID, *Patient*, *Room*, StayStart, StayEnd )**

**Trained\_In ( *Physician*, *Treatment*, CertificationDate, CertificationExpires )**

**Undergoes ( *Patient*, *Procedures*, *Stay*, DateUndergoes, *Physician*, *AssistingNurse* )**

# Part 2: Cardinalities

* Fill in the table with the cardinalities.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Relationship** | | | **Cardinality** | |
| **Parent** | **Child** | **Type** | **Max** | **Min** |
| PERSONS | PHYSICIANS | ID-dependent inclusive subtype | 1:N | M:O |
| PERSONS | Nurses | ID-dependent inclusive subtype | 1:N | M:O |
| PERSONS | Patients | ID-dependent inclusive subtype | 1:N | M:O |
| PHYSICIANS | AFFILIATED\_WITH | ID-dependent associative | 1:N | M:O |
| Department | AFFILIATED\_WITH | ID-dependent associative | 1:N | M:O |
| PHYSICIANS | Appointment | Strong | 1:N | M:O |
| Nurses | Appointment | Strong | 1:N | M:O |
| Patients | Appointment | Strong | 1:N | M:O |
| Prescribes | Medications | ID-dependent multi-valued | 1:N | O:M |
| Appointment | Prescribes | ID-dependent | 1:1 | M:O |
| PHYSICIANS | Prescribes | Strong | 1:N | M:O |
| Patients | Prescribes | Strong | 1:N | M:O |
| Blocks | Rooms | Strong | 1:N | M:O |
| Nurses | ON\_Call | ID-dependent associative | 1:N | M:O |
| Blocks | ON\_Call | ID-dependent associative | 1:N | M:O |
| Patients | Stays | Strong | 1:1 | M:O |
| Rooms | Stays | Strong | 1:N | M:O |
| PHYSICIANS | Trained\_In | ID-dependent | 1:N | M:O |
| Trained\_In | Procedures | ID-dependent multivalued | 1:N | O:M |
| PHYSICIANS | Undergoes | Strong | 1:N | M:O |
| Nurses | Undergoes | Strong | 1:N | M:O |
| Stays | Undergoes | Strong | 1:1 | M:O |
| Patients | Undergoes | ID-dependent | 1:1 | M:O |
| Undergoes | Procedures | ID-dependent | 1:1 | O:M |

# Part 3: ERD

* Draw an ER data model

A picture containing timeline

Description automatically generated