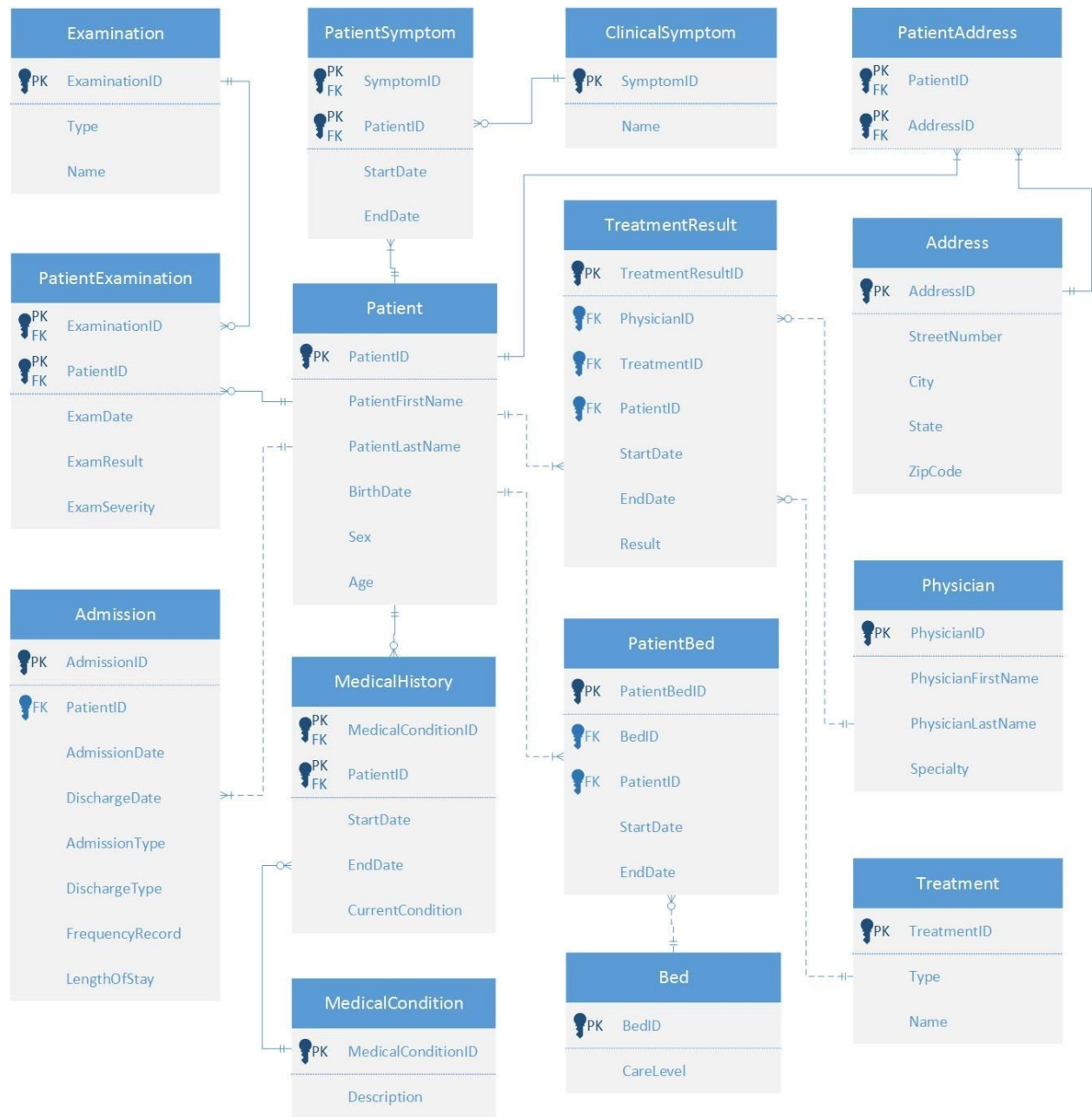


INFO 6210 Data Mgt and Database Design: P3_Final ERD

Group 6

Pei-Ling Chiang, Shuyuan Lyu, Ssu-Yu Ning, Zhehui Yang, Bo-Zhong Zhang, Yuxin Zhang

1. Final ERD



2. Editing description

- We change our business rules to allow that a patient can have one or more addresses and an address can be owned by one or more patients. To solve the many-to-many relationship between patient and address, we create a new entity Address and make entity PatientAddress an associative entity between entity Address and entity Patient.
- For entity Admission, attribute AdmissionID is unique and sufficient to function as PK, so attribute PatientID doesn't need to be a PK attribute. Attribute PatientID just works as an FK attribute.
- The initial design of entity Bed used BedID and PatientID as composite primary keys, but the relationship between entity Bed and Patient is one-to-one or one-to-zero. Since the Patient entity is PK, it can not be null. Therefore, we create an associative entity PatientBed between Patient and Bed to keep past and current bed assignments. We also add a new attribute PatientBedID as a surrogate key and make the initial composite PK BedID and PatientID work as only FKs. The change is to solve a situation where a patient can use the same Bed at different times.
- We add a new attribute Age in Patient entity and attribute LengthOfStay in Admission entity. Both are computed columns.