



NYU – TANDON SCHOOL OF ENGINEERING
CS-GY 6083 - B, FALL 2019
Principles of Database Systems

Project Part 2

Project Guidelines:

In the second part of the project, you have to create a web-based user interface for the database designed for the business case detailed in first part of the project. Note that you have more freedom in this second project to design your own system. You still have to follow the basic guidelines, but you can choose the actual look and feel of the site, and offer other features that you find useful. In general, design an overall nice and functional system. If you are doing the project as a group of two, note that both students have to attend the demo and know ALL details of the design. So work together with your partner, not separately.

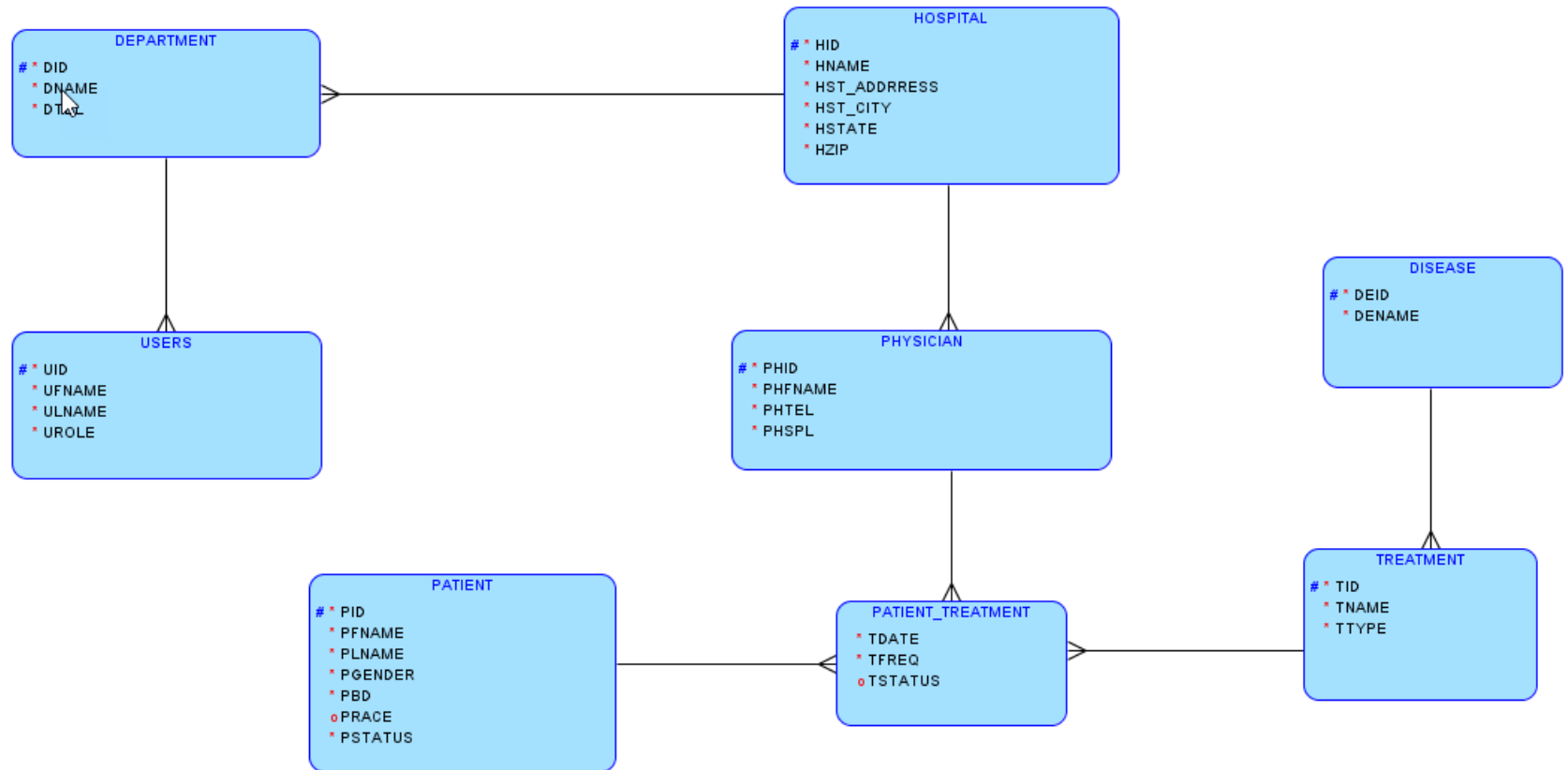
Start by revising your design from the first project. In general, part of the credit for this project will be given for revising and improving the design you did in the first project. You should be able to perform all operations via a standard web browser. This should be implemented by writing a program that is called by a web server, connects to your database, and then calls appropriate actions (DB connections, browse (query) tables, update data, delete records for at least two tables). You may use frameworks such as PHP, Java, Ruby on Rails, or VB to connect to your backend database

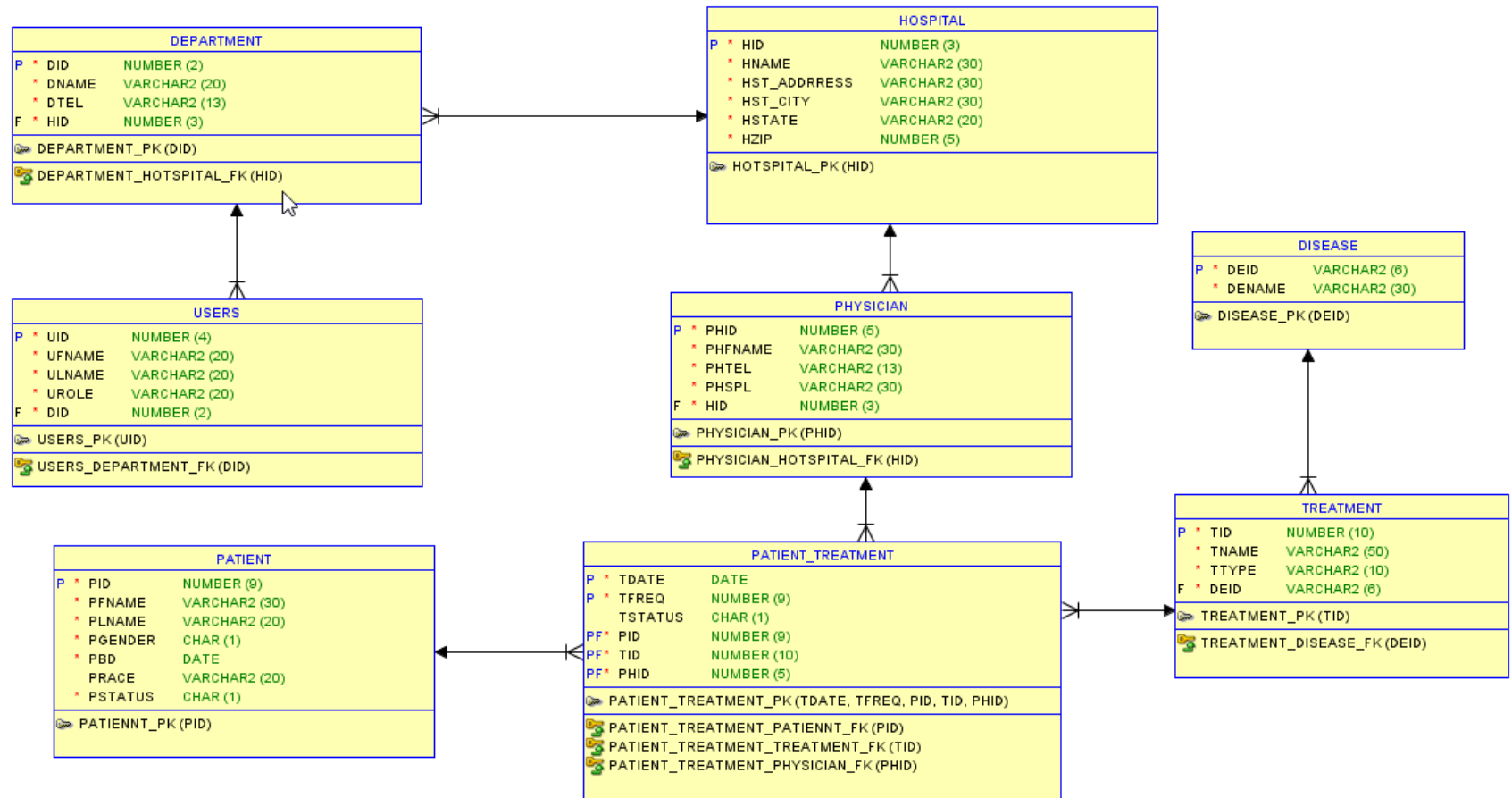
There will be opportunity to earn extra credit by implementing cool extra features, but extra credit is limited to about 5-10% (and the TAs decide what is cool). There may also be extra credit of up to 4% for doing an early demo, before announced demo dates. Please look for email from TAs about it.

Instruction:

A)

Modify Logical and Relational model design as shown below. Make sure that you add meaningful comments in RDBMS for each columns.





B)

Create DDL from this relational Model and convert DDL file to MySQL version script using online script convertor tool.

<http://www.sqlines.com/online>

C) Create a database with name, F196083B

D) Apply/Run DDL from step B to Create tables with PKs, Fks, Column comments in database F196083B

E) Apply following constraints

```
ALTER TABLE PATIENT ADD CONSTRAINT CK_PATIENT_PGENDER CHECK (PGENDER IN ('M','F','U'));  
ALTER TABLE PATIENT ADD CONSTRAINT CK_PATIENT_PSTATUS CHECK (PSTATUS IN ('M','S','D','W'));  
ALTER TABLE PATIENT_TREATMENT ADD CONSTRAINT CK_PATIENT_TREATMENT_TSTATUS CHECK (TSTATUS IN ('S','F','R'));  
ALTER TABLE TREATMENT ADD CONSTRAINT CK_TREATMENT_TTYPE CHECK (TTYPE IN ('PHARMA','PROCEDURE','SURGERY'));
```

F) Import attached sample data into database F196083B

Submission:

Submit following in a single PDF document

A) Screenshots of all Tables, showing columns, datatypes, constraints, and comments on columns [30 pts]

B) Provide screenshot of SQL statements and results for each of the following queries [40 pts]

- I. List disease id, disease name, treatment id, treatment name, treatment type for treatment type as PHARMA. List your result in order of disease name.
- II. List patient id, first name and last name of patients, marital status, physician treating patients, status of treatment, treatment name, treatment type and diseases treated for.
- III. List diseases and number of treatment given for the treatment type PHARMA

- IV. List physician along with patient's first name and last name for each unique patients they have treated. Also include physician who has not treated any patients.

C) A paragraph about your web application, detailing which framework/programming you have used, features, and functionality of the web application. Demonstrate your application for web accessible database. [30 pts)

Clearly state course, section, submission date, student names and Ids on title page. If you are working in group, name and ID of both students must be listed. Only one team member in group needs to submit their assignment at NYUClass . Both team members need to be present at demo and should know details of their web application.