

Lecture Prep for Week 12

Your job

Design a schema for a relational database that is capable of containing the same data that can be stored in the XML files you are working with for Assignment 3 — that is, files that satisfy the DTDs provided for Assignment 3. Express your schema using the Data Description Language component of SQL. Enforce key and foreign key constraints where appropriate. Use this at the top of your DDL file:

```
drop schema if exists MusicService cascade;  
create schema MusicService;  
set search_path to MusicService;
```

It will allow you to reload your DDL file without having to drop anything by hand. This comes in handy as you are debugging your DDL syntax.

You do not need to follow any of the database design algorithms we are in the process of learning about. Simply aim to avoid redundancy and unnecessary nulls. The purpose of this exercise is to help you see that there are many possible designs for a given dataset, that some are better than others, and that having principles and algorithms helps us to wade through the options and make good choices. We are not expecting a “perfect” design.

Submitting your work

Put your DDL in a plain text file called “DDL.txt” and submit it under Prep 12 on MarkUs. In addition, cut and paste, into a second file called “prep12.txt”, an interaction with the PostgreSQL shell that shows you importing your file successfully. You do not need to put any data into your schema.

Once you have submitted, click on the file’s name to check that you submitted the correct version. You can submit a new version of a file later (before the deadline, of course); look in the “Replace” column.