

## **Project 2**

Select Project 2A or 2B, or define your own. However, make sure it is comparable to 2A and 2B. Consult with me if you want to define your own project.

### **Requirements:**

- (Weight: 20%) Write SQL statements that create the tables according to the given ER diagram. Your code should include constraints that enforce primary key, foreign key, and deletion rule constraints.
- (Weight: 5%) Write SQL statements that populate the tables according to the data mentioned in the description, or write and populate your own fake data.
- (Weight: 15%) Design an interactive web application.
- (Weight: 40%) Implement the functionality with your preferred language. PHP is **NOT** required if you would prefer to use something else. Your application should display information from your database (30%), and allow for new data insertion (10%). See project description for details.
- (Weight: 20%) Create a video walk-through of your web application, including the working database connection (being able to log in and add a new record to the database).

### **Note:**

- Feel free to assume other information that you feel is necessary for your solution as long as it is relevant to the problem.
- Don't forget! There will be peer evaluations after this project is complete. Your peer evaluation average will determine your grade for both project 1 and project 2 (example: if you get a 50% average from your teammates, you will only receive 50% of the grade your group receives on the projects. This will make or break your grade).

## **Project 2A—Advertisements Manager**

Assume you are in charge of implementing the database of an advertisements manager application. Your job is to create and populate the database as well as implement the web application (for customer-use).

Customers should be able to log into their account, and fill out a form to submit an advertisement. The advertisement will then be displayed in the advertisement table (which will only show ads created by that particular user), and will be shown as “pending”.

**ER Diagram:** Figure 1 shows the ER diagram of the application. The details of the entities are as follows:

- Categories: Categories allow you to classify the advertisements. Here is sample data for the Categories table:

Category_ID	Name
CAT	Cars and Trucks
HOU	Housing
ELC	Electronics
CCA	Child Care

- Statuses: Statuses contains the possible values for an advertisement status. Here is sample data for the Statuses table:

Status_ID	Name
PN	Pending
AC	Active
DI	Disapproved

- Users: Users contains information about all users of the system including the moderators. Here is sample data for the Users table:

User_ID	UserFirst_Name	UserLast_Name
Jsmith	John	Smith
Ajackson	Ann	Jackson
Rkale	Rania	Kale
Sali	Samir	Ali

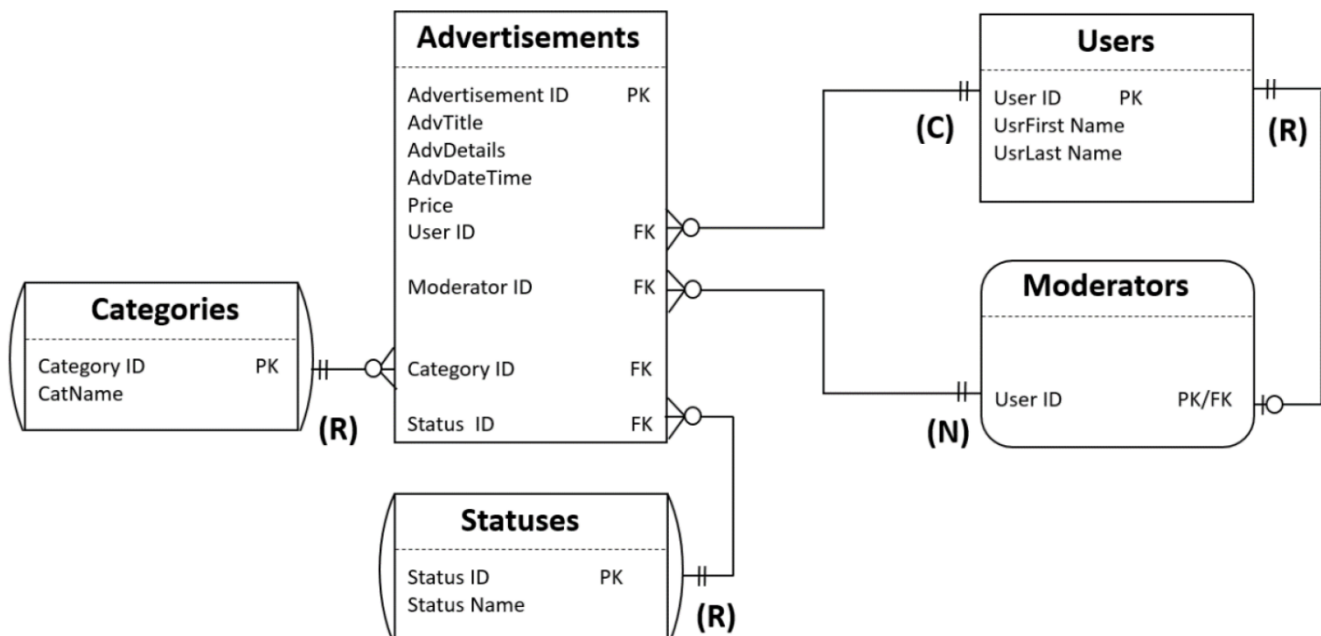
- Moderators: This table contains information about all moderators of the system. Here is sample data for the Moderators table:

User_ID
Jsmith
Ajackson

- Advertisements: Advertisements contains advertisement information:

AdvTitle	AdvDetails	AdvDateTime	Price	Category_ID	User_ID	Moderator_ID	Status_ID
2010 Sedan Subaru	2010 sedan car in great shape for sale	2017-02-10	6000	CAT	Rkale	Jsmith	AC
Nice Office Desk	Nice office desk for sale	2017-02-15	50.25	HOU	Rkale	Jsmith	AC
Smart LG TV for \$200 ONLY	Smart LG TV 52 inches! Really cheap!	2017-03-15	200	ELC	Sali	Jsmith	AC
HD Tablet for \$25 only	Amazon Fire Tablet HD	2017-03-20	25	ELC	Rkale	Null	PN
Laptop for \$100	Amazing HP laptop for \$100	2017-03-20	100	ELC	Rkale	Null	PN

Figure 1: Advertisements Manager ER Diagram



## Project 2B—Open Project—Meeting Organizer

You are in charge of implementing a meeting organizer application. The system should allow the Employees to login and view what meetings are happening when, as well as add meetings to the schedule. The details of this project are left to the students, but the database should be implemented on the following ER diagram:

Figure 2: ER diagram of the meeting organizer application

