

Normalization

What to turn in:

Your presentation in the form of excel .

This is a group assignment. Work with the other members of your team to create a normalized database, using Entity Relationship diagrams. **Identify primary keys, unique keys, foreign keys and cardinality (relationships: one to one, one to many, many to many).** Also come up with a couple of rows of sample data for each of your entities.

Identify your assumptions and don't make it overly complicated. Don't go over seven tables.

1) You want to store information on movies. Each movie is rated as **R, PG or G**. Store the category for each of the movies such as horror, comedy and so on. Also, store the name of the director for the movie. Example :

One of the Movies is Matrix and it is rated PG13. It is an action movie and the director's name is Peter Jackson.

2) You want to keep track of all the faculty working in various schools. Who the **faculty** are, what are the various **departments** that they work in.

Example:

Trump University
Iraj Sabzevary
Business department

3) Come up with a database design to store all the different **books** that are being carried in the different **bookstores**. Also identify the category such as horror, comedy ...

Example:

Borders Bookstore
Dune
ISBN 12345
Sci-Fi

4) You want to store information on employees who work on various projects. The employees work in different departments. Also identify the manager of the department.

John who works in finance is working in project x.

5) You want to store information on **marriages**. We want to know who is married to who. We don't care about historical information. We can have same sex marriages. Also, store the date of the marriage.

Example :Brad Pitt is **married** to Angelina Jolie

6) You want to store information about the various **animals in a zoo that are in cages**. All the animals in your zoo have a name.

Example: **Johnny** is the name of **dog** who is a **mammal** and is being kept in **Cage_1** which is the name of the cage

7) We want to get a listing of all the different kinds of crimes a person has committed throughout their lives. Come up with the sentence and the date the crime was committed.

Example: Jack is guilty of plagiarism .

8) There is a bank with many branches that wants to store all of its customer data. Also identify the type of account such as savings, CD, checking and so on.

Bank of America, branch 13, has a customer John Smith who has 10000 in his account

9) we have a bus company that has buses, passengers, bus drivers and bus routes.

Example: Bus 101, has 10 customers (each with their own id) has a bus driver john who is going through routes a, b, c

10) We have influencers, their content and their followers