Agenda (best guess)

SQL Mini-Lecture	20 minutes
HW4-1 Peer Review	30 minutes
HW4-1 Test Inspection	30 minutes
Static Analysis	30 minutes

At this point your laptops should be closed.
Please get out a sheet of scrap paper.

Before we start

As the semester goes on, Thursdays become very unstructured "working days".

Nobody actually works for the whole two hours.

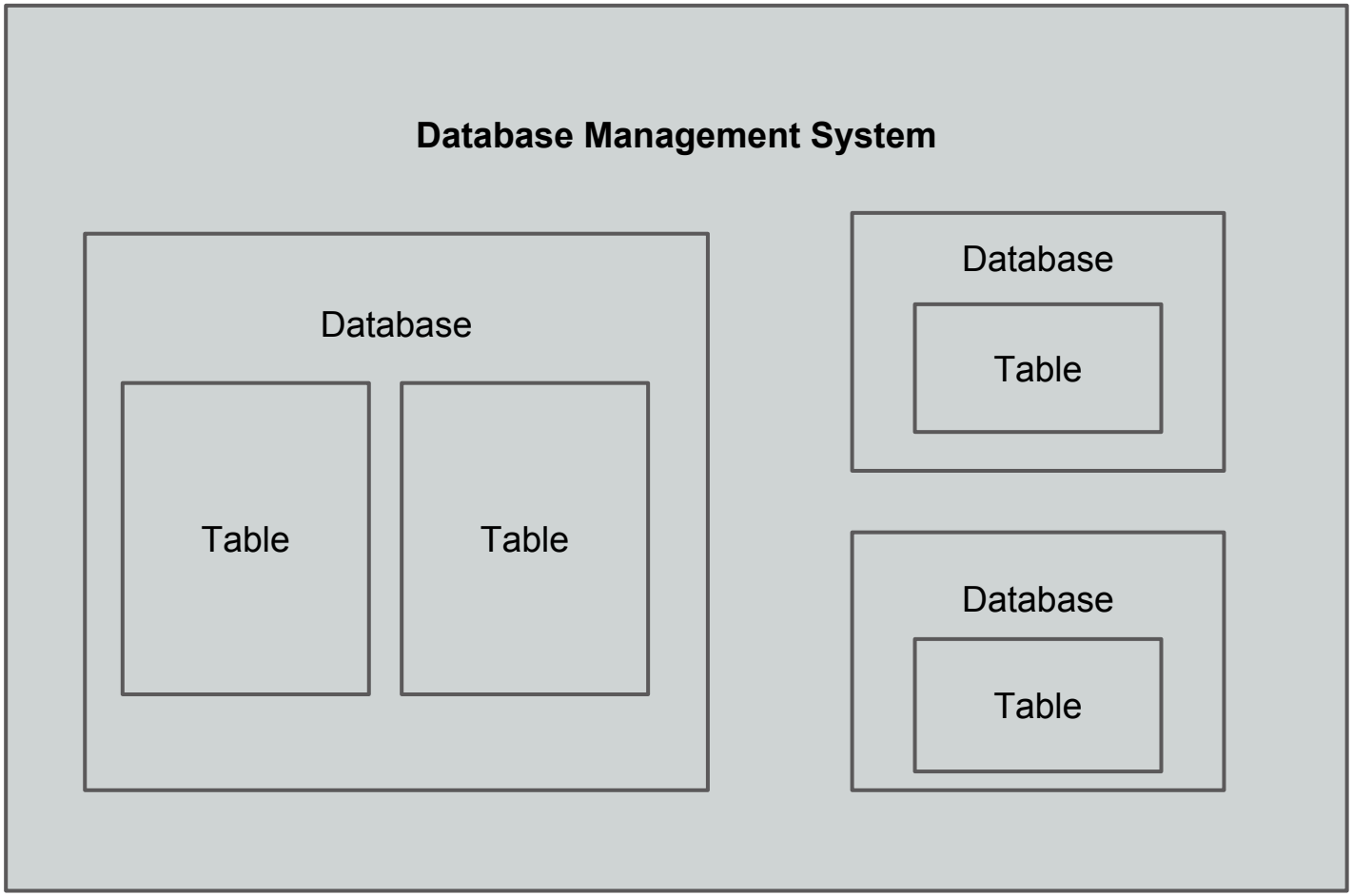
I'll take requests for technical "mini-lectures" to go over material that you either need for your projects or are just personally interested in.

SQL (CSC 540-lite)

SQL (Structured Query Language) is a way of interacting with *Relational Database Management Systems*.

- MySQL
- SQLite
- Postgres

The Taxonomy



Tables (Relations)

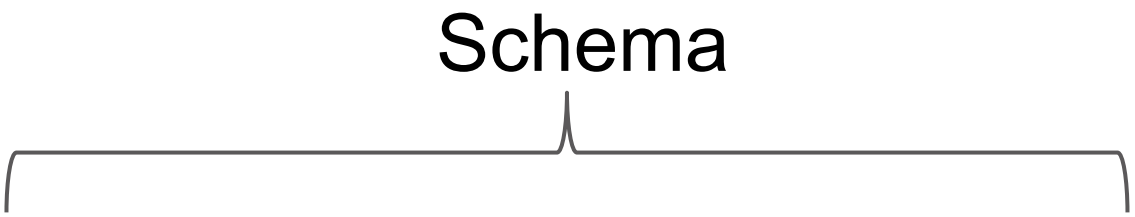


TABLE 1	Attribute 1*	Attribute 2	Attribute 3
Record 1	Value 1 (1)	Value 2 (1)	Value 3 (1)
Record 2	Value 1 (2)	Value 2 (2)	Value 3 (2)

A SELECT statement returns a table

What would "SELECT Attribute 1 from Table 1" give you?

Entities

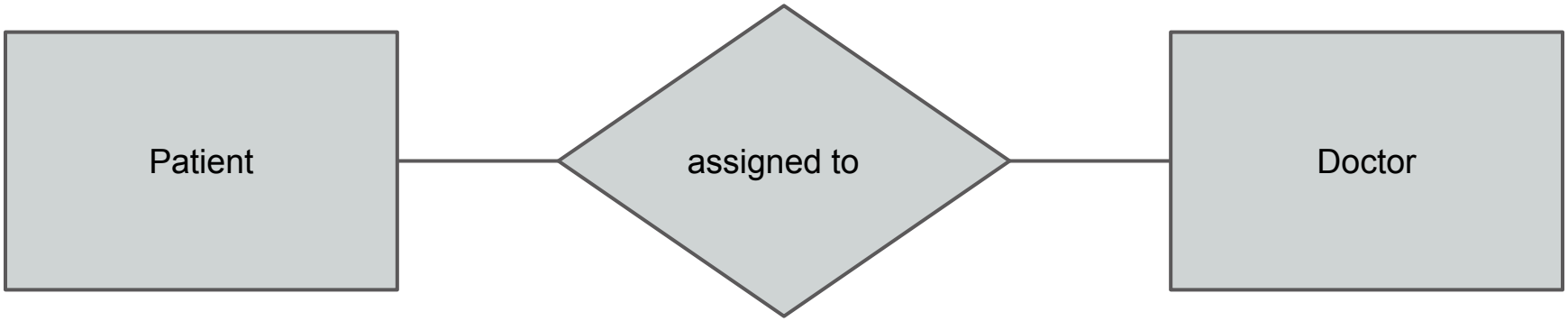
Patient

MID	Name
1	Sonic
2	Tails
3	Knuckles

Doctor

MID	Name
9000001	Mario
9000002	Luigi
9000003	Yoshi

Entities



Patient MID	Name
1	Sonic
2	Tails
3	Knuckles

Patient MID	Doctor MID
1	9000001
1	9000002
2	9000003
3	9000001

Doctor MID	Name
9000001	Mario
9000002	Luigi
9000003	Yoshi

SELECT * FROM patients *JOIN* "assigned to" ON Patient MID;

JOIN takes the cross product of two tables and keeps the rows where the "ON" values are equal

Patient MID	Name
1	Sonic
2	Tails
3	Knuckles

Patient MID	Doctor MID
1	9000001
1	9000002
2	9000003
3	9000001

Doctor MID	Name
9000001	Mario
9000002	Luigi
9000003	Yoshi

SELECT * FROM patients *JOIN* "assigned to" ON Patient MID;

Patient MID	Name
1	Sonic
2	Tails
3	Knuckles

Patient MID	Doctor MID
1	9000001
1	9000002
2	9000003
3	9000001

Patient MID	Name	Patient MID	Doctor MID
1	Sonic	1	9000001
1	Sonic	1	9000002
1	Sonic	2	9000003
1	Sonic	3	9000001
2	Tails	1	9000001
2	Tails	1	9000002
2	Tails	2	9000003
2	Tails	3	9000001
3	Knuckles	1	9000001
3	Knuckles	1	9000002
3	Knuckles	2	9000003
3	Knuckles	3	9000001

Bringing it Back

What JOINS would you use to get a table containing just the names of each patient and assigned doctor together?

Which relations are you dealing with for HW4?

Why wouldn't putting the MIDs in a Comma-separated list work correctly?

Are there any other questions?

HW4-1

Today you will be doing a peer evaluation of another student's project document and running through their tests.

Go to the Lab 7 Moodle - the google form is the same rubric I'll be using to grade you

After this assignment, you know your grade!

Static Analysis

Analysis of Source Code without running it

We'll be using "FindBugs" to... well... find bugs in iTrust

- install findbugs first
- then install AWARE

Find some bugs and let the TA know what you find.

Final Thoughts

HW4-2 is due the Wednesday after Spring Break. That gives you three weeks!

Midterm is next Week - on Sunday Night, we'll meet in here from 6 to 9 PM to go over the study guide and answer questions.

Bring your course pack if you decide to join.