8.31.11

Database Fundamentals

CSCI 2020

* Data Models
- describes how data is stored
- categories include conceptual, implementation, & physical
- conceptual - UML
- implementational - Object Oriented
* ANSI Level 3
- conceptual don't fall in
- implementation - database schema
* Data Independence
- logical & physical
* Conclusion
- understand terms & concepts
- we will use the DB, modify the data, & then design the DB
** Relational Database model
* Relational Overview
- all data is stored in tables (also meta data)
- meta data is also called the data dictionary
- links (keys) connect tables together
- intention - structure
- extention - data
- a key is usually underlined
* Definitions
- schema - collection of all tables & their restraints
* Constraints
- key constraints - each value must be unique
- referential integrity -
- entity - null, if a primary key, a value must be there

* Nulls are Bad
  - waste space
  - no info given
  - info not applicable
  - can cause inconsistencies
  - null doesn't compare to anything
  - null = null (is still false)
* also
  - a foreign key column refers to a primary key in another key