1. Database:
   1. Collection of data stored in a computer system
   2. Allows user to enter, access, update, analyze, data quickly
   3. Think of a database as a collection of lists
   4. You can have many people working on same database at the same time
2. Four Types: tables, queries, forms, reports
   1. Tables:
      1. where data is stored
      2. linked together with primary keys and foreign keys
         1. because tables are linked -> relational databases
   2. Queries:
      1. retrieves the data and displays data you specify
      2. Allows you to ask ques about data in your tables
   3. Forms:
      1. Used to enter new records/ edit or delete records
   4. Reports:
      1. Summarize the fields in an easy to read format for managers
3. Tables:
   1. Fields are the types (column)
   2. Records are the rows
   3. Each row must have a unique identifier, primary key to differentiate
      1. Primary key must be unique

SQL: stands for Structured Query Language

1. What is it:
   1. SQL stands for Structured Query Language
   2. SQL lets you access and manipulate databases
   3. SQL became a standard of the American National Standards Institute (ANSI) in 1986, and of the International Organization for Standardization (ISO) in 1987
2. What can it do:
   1. SQL can execute queries against a database
   2. SQL can retrieve data from a database
   3. SQL can insert records in a database
   4. SQL can update records in a database
   5. SQL can delete records from a database
   6. SQL can create new databases
   7. SQL can create new tables in a database
   8. SQL can create stored procedures in a database
   9. SQL can create views in a database
   10. SQL can set permissions on tables, procedures, and views
3. Important SQL Commands:
   1. **SELECT** - extracts data from a database
   2. **UPDATE** - updates data in a database
   3. **DELETE** - deletes data from a database
   4. **INSERT INTO** - inserts new data into a database
   5. **CREATE DATABASE** - creates a new database
   6. **ALTER DATABASE** - modifies a database
   7. **CREATE TABLE** - creates a new table
   8. **ALTER TABLE** - modifies a table
   9. **DROP TABLE** - deletes a table
   10. **CREATE INDEX** - creates an index (search key)
   11. **DROP INDEX** - deletes an index
4. SELECT:
   1. Used to select data from database
   2. Data returned is stored in a result table, called a result-set
      1. |ex| - SELECT FirstName, LastName FROM Table;
      2. We can use “ \* ” to select all fields (asterisk)
5. SELECT DISTINCT:
   1. Used to return only distinct, unique values. Columns may contain duplicates and you may want distinct values
6. WHERE clause:
   1. Used to filter records