WEEK 02

Statement of Work (SOW): Is a document used to plan the execution of data projects and systems. It’s parts are: History – what the organization was using before, why it needs a database; scope, what is the extent of work to be done. What are the time and budget constraints. What needs to be done and by whom; objective, what sought of service is the system supposed to provide once it is finished. What does the organization wish to gain from the system; timeline. At this stage the project is broken into smaller tasks which are further broken into discrete tasks. Each task has a timeline for completion.

Entity Data Storage: A single thing, person, place, or object; usually represented as a single row in data storage. Also referred to as a record.

Attribute Data Storage: A value that describes a characteristic(s) of the entity. A set of these related values for many entities are represented as a column in data storage. Also referred to as a field.

In data-driven decision making, we use data in making decisions. This reduces bias and false assumptions.

President Henry B. Eyring taught that we go to school, not to learn skills (because skills can get irrelevant quickly), but to learn how to ask good questions. If we can ask good questions, we will always have the knowledge and skills to remain relevant.

To ask good questions, the questions must:

* Have a clear purpose.
* Have a problem to solve.
* Be important.
* Be relevant.

While designing a survey, care needs to be taken to ask the questions in such a way that people of varying demographics can give an answer that very accurately captures their opinions. Also, the survey questions need to be unambiguous.

NO matter how much technology and data we use, it’s about people first” (DJ Patil, “What makes a Revolutionary Technology?”, BYU Speeches, 2018, <https://www.youtube.com/watch?v=UOoMzaWOQJA>)

WEEK 03

DDL: Data Definition Language. It has to do with the actual structure of the database itself. [DDL and DML](https://learning.oreilly.com/library/view/simply-sql/9780980455250/Text/ch01.html#:-:text=The%20terms%20DDL%20and%20DML%20are,%20it%20using%20DML%20statements.) eg, CREATE, ALTER, and DROP

DML: Data Manipulation Language. Does not affect the structure of the database. Eg, UPDATE, INSERT, DELETE, and SELECT

\*: means every column in the table

SQL statements must be [keywords, identifiers, or constants](https://learning.oreilly.com/library/view/simply-sql/9780980455250/Text/ch01.html#:-:text=Just%20as%20sentences%20are%20mad,t%20is%20always%20one%20of%20these%3A)

Funny quote about the creation of the universe [by Douglas Adams](https://learning.oreilly.com/library/view/simply-sql/9780980455250/Text/ch01.html#:-:text=In%20the%20beginning%20the%20Universe%20was%20created.%20This%20has%20made%20a%20lot%20of%20people%20very%20angry%20and%20been%20widely%20regarded%20as%20a%20bad%20move.,%C2%A0%09--Douglas%20Adams).

WEEK 07

[SQL syntax and operators](https://youtu.be/Ay4I_MCVhbg)