



# INTRO TO SQL WEEK 3

WEEK 3: SEP 19 & SEP 21, 2023

INSTRUCTOR: SYLVIA VARGAS [SQLSYLVIA@GMAIL.COM](mailto:SQLSYLVIA@GMAIL.COM)

LINKEDIN: [HTTPS://WWW.LINKEDIN.COM/IN/SYLVIAVARGAS/](https://www.linkedin.com/in/sylviaavargas/)

BLOG: [HTTPS://SYLVIAVARGAS.COM/](https://sylviaavargas.com/)

BLOG (IN PROGRESS): [HTTP://SHESATECHIE.ORG/](http://shesatechie.org/)

ALL SLIDES ON [GITHUB](https://github.com/SQLSYLVIA/GDI-SQL): [HTTPS://GITHUB.COM/SQLSYLVIA/GDI-SQL](https://github.com/SQLSYLVIA/GDI-SQL)

## WEEK 3 AGENDA – MORE DATA MANIPULATION

We will continue using the **W3Schools** Database for class.

[https://www.w3schools.com/sql/trysql.asp?filename=trysql\\_editor](https://www.w3schools.com/sql/trysql.asp?filename=trysql_editor)

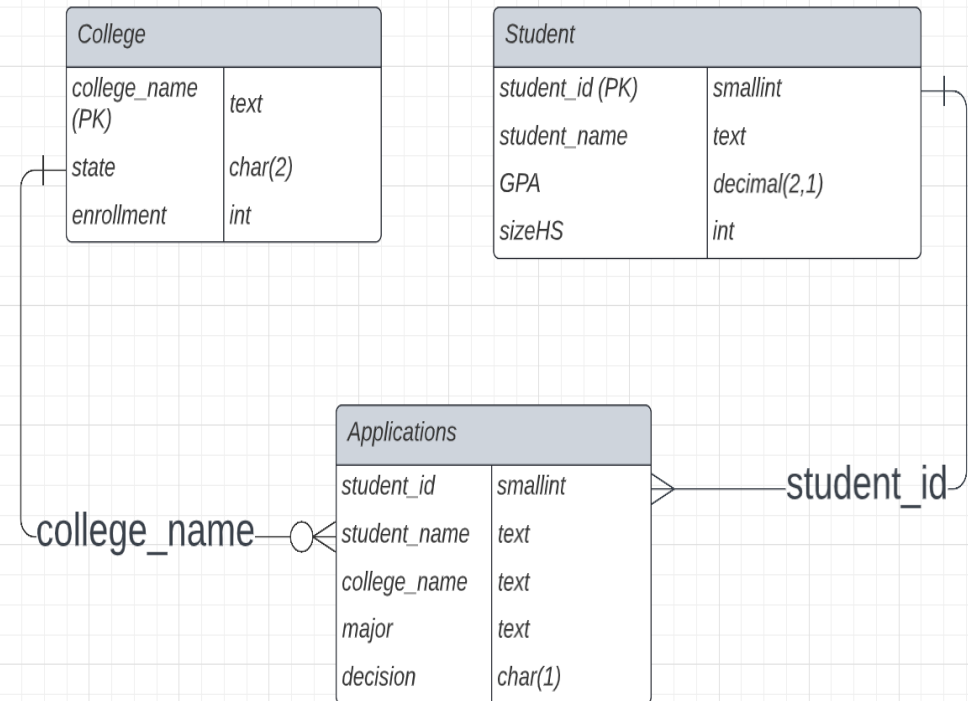
This week's class topics include:

- JOIN REVIEW
- OUTER JOINS
- SUBQUERIES and Common Table Queries
- INSERT
- UPDATE
- ALTER TABLE
- CREATE TABLE

# COLLEGE / STUDENT DATABASE

- See College DB and other SQL databases created in REPLIT at <https://github.com/sqlsylvia/GDI-SQL>
- These databases are developed for you to practice you SQL!

## College Student Applications Database



# SQL FORMATTING AND DATE FUNCTIONS

- **FORMATTING** and Date functions are different across the various SQL platforms. There was no original Standard when SQL was developed. So every RDBMS vendor created their own standard and many times changed the standard in various versions of their database.

# SQL FORMATTING

- For Examples Checkout

<https://github.com/sqlsylvia/GDI-SQL/blob/main/SQLFormatting.md>

# SQL DATE COMMON FUNCTIONS

- Current Date and Time
- Date Difference
- Extract a date part from a date. Ie. Day of week.

For examples checkout

<https://github.com/sqlsylvia/GDI-SQL/blob/main/DateFunctions.md>

# SQLITE DATE AND TIME FUNCTIONS

SQLite does not have particular data types for storing dates and times. However, SQLite data and time functions can help you store dates and times as TEXT, REAL, or INTEGER values:

- **TEXT** as ISO 8601 strings ('YYYY-MM-DD HH:MM:SS.SSS').
- **REAL** as the number of days since noon in Greenwich on November 24, 4714 B.C.
- **INTEGER** as the number of seconds since 1970-01-01 00:00:00 UTC.

## SQLite date and time functions:

- The **date()** function returns the date in the format YYYY-MM-DD.
- The **time()** function returns the time in the format HH:MM:SS.
- The **datetime()** function returns the timestamp in the format YYYY-MM-DD HH:MM:SS.
- The **julianday()** function returns the [Julian Day](#), i.e. the number of days since noon in Greenwich, England on November 24, 4714 B.C.
- The **strftime()** function returns the date formatted according to the format string specified as the first argument.