

# CS 310 : Scalable Software Architectures

*Week 02 (Sept 30 – Oct 4)*



## October 2024

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

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## This week in CS 310:

- *Focus this week:*
  - *Relational databases*
- *Class sessions **\*are\*** being recorded this week*
  - *Will be available under Panopto on Canvas*
- *Project 01 due Wednesday Oct 9<sup>th</sup> @ 11:59pm*
  - *Build a simple photo app using AWS*
  - *Part 01 has been released, configuration of AWS*
  - *Part 02 to be released, client-side programming*
- *TA office hours start Monday 9/30*
  - *See links on Canvas*



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# Topics

- **Relational databases**
- **SQL (select, insert, update, delete)**
- **Database design (3 most important rules)**
- **Optimizing database access (indexing)**
- **Programmatic access via Python**
- **Notes:**
  - *Assuming no background in databases / SQL*
  - *Optional practice assignments on Canvas (HW01, HW02)*

# Class sessions

- Summarize key points of lecture
- Write SQL using sqlite3
- Execute SQL using python with sqlite3
- Demo optimizing access with indexes
- Notes:
  - *To work in class, make sure Docker Desktop is installed*
  - *Provided software uses Docker, download files from GitHub:*
    - <https://github.com/joe-hummel/intro-to-db-sql>
    - Clone repo or download ZIP