

NAVYA NARAYAN PANICKER

WEEK 4

DAY 1: 13/10/25 [MONDAY]

TASK : Add endpoints: Design schema for tasks: fields such as id, title, description, status, due\_date; create tables

QUESTIONS/REFLECTIONS:

1. What is the normalized form? Why avoid data redundancy?
  - Normalization is a form that is used to structure the relational databases to reduce the redundancy.
  - There are different kind of normal forms :  
1NF, 2NF, 3NF, BCNF
  - If you change the same data in multiple places then it will cause inconsistent data
  - The complexity of the database will increase otherwise.
  - The operations will be slower as the db becomes heavier.
2. How would you decide types (VARCHAR, DATE, INT etc.)?
  - The type should match the meaning of the data that you want to store.
  - Use appropriate integer that fits the data and can save space.
  - Date/time is used if you want to show the date and time.
  - Numeric for integer data.
3. Describe schema changes you might make if tasks need tagging / user assignment.
  - Add a tag table and a task\_tag and join the table to support multiple tagging.
  - Add a user table
  - Add a task\_assignment table to assign multiple times.
  - Add required indexes, constraints and foreign keys.