AeroAspire -SDE Intern Training

John Nikhil G

Week4-Day 5-Oct16

- **Learning Topics**
  - Migrations
  - DB setup scripts
  - Seed data
- **Task**
  - Learn/use Flask-Migrate or write simple script to seed DB
  - Migrations when schema changes
- **Questions**

1. What is a migration? How it works: generating migration file → applying it → version control.

- A migration is when we make structural changes to a database, like adding or editing tables or columns.
- It helps keep the database updated as the project grows.
- A migration file is created using tools like **Flask-Migrate**, which record the changes we want to make.
- Then we apply those changes to the database using commands like flask db migrate and flask db upgrade.
- These migration files are stored in version control (like Git), so everyone's database stays in sync.

---

2. How to seed data: why and how.

- Seeding means adding some sample or test data into the database.
- It helps check if everything—like queries, APIs, and relationships—works properly before real data is added.
- We usually create a small script or function that inserts this dummy data into tables.
- Once the database is set up, we run this script to load the sample data automatically.

---

3. If you need to add a new column to the tasks table after the app is in use, how do you do that safely?

- First, create a new migration that defines the new column.
- Then run the migration to apply that change to the live database.

- Always make sure the new column has a default or nullable value so old data doesn’t break.
- After that, you can safely use and access the new column in your app.