Session 2 (1/16/26):

Coin Control - Financial Planner Android Application

- Built an Android budgeting and expense-tracking app using Java and Spring Boot, integrating an SQL database to store and manage user financial data, enabling efficient personal finance management for multiple users.

Situation/Task:

-Class project (software development practices class). Semester long project.
-I was on a team of 4 (2 backend devs and 2 front end devs).
-I was a backend dev (chat function, homepage, tracking, database).
-Assignment was to create an Android app after approval from the professor.
-It had to have a chat feature in it.
-We chose a financial planning/budgeting app – chose this because it was more formal, seemed more professional. We wanted to do something more around productivity, not a game (useful).
-We wanted to integrate a GPT chatbot, but we had difficulty because of a paywall. (is there detail about the research/effort that went in?)

Actions:

-Split up responsibilities based on people's interests/experience (I got back end).
-Helped to keep the team on track by checking in on progress (especially closer to deadlines).
-Helping coordinate meeting times for progress check-ins or group work sessions outside of class time.
-I designed the logo (coin control logo – design with online Canva type tool)
-I implemented:

- the chat function
    - implemented in Java, (try to fill in more details here about interesting features in this function/concepts)
- the homepage
    - Shows you your allowance and savings, can insert expenses here as well. Built with Java. (functions built to calculate allowance and savings based on expenses given). Built equations, then algorithm to accomplish this.
- the tracking function for expenses
    - Same as homepage.
- the database
    - Built with SQL (relational database). Takes what you input into homepage, stores in database, then calls on this data when it needs to do calculations. Also stores user info in this database (I didn't have the user info)

-Backend/frontend integration/collaboration:

- Before starting, meet with front end guys, I would understand what output types they might need, so I can adjust the backend to accommodate and avoid rework.
- Would finish a piece of backend work, then meet with front end guys and walk them through the new changes/implementation and how they can interface with the backend for their portions.

-Testing:

- I would do my own backend testing (unit testing for calculations, input/output testing)
- The front end would do their own testing.

-Presented 3 times to a TA throughout semester (presenting my contribution)

- No negative feedback from TA throughout these check-ins, continued on with the project.

Results:

-Finished on time

-Functional app (all functions working at the end) – tested/used by all 4 teammates

-Finished with an A (100%) on the project – this included peer reviews/ratings from my teammates.

-Presented final app to a TA (presenting my contribution)

-What would you do differently?

- Chatbot?
- Would have tried to take some front end responsibility to contribute more to the front end experience and learn more about it.
- Would like to have added more functionality to make the app appeal to audience/consumers outside of our class. (scanning receipts with camera and have AI auto populate expenses, use data from previous month and go through financial planning for next month)

-What was your biggest takeaway?

- Learned how to make a native Android app, didn't know how before this
- Learned how important it is to make back end decisions/implementations after collaboration with front end devs to avoid rework and misalignment.

-How did you spread influence/impact wider?

- Coached brother through class after my lessons learned.
- I used my backend experience from this app to help with backend work at Abdul Aziz Uni.

Next session: 6PM CST, Thursday 29Jan.