

AeroAspire - SDE Intern

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Week 4 – Day 5 (October 17)

Questions/Reflections:

1. What happens if DB is down: how does the app error?

- If the database is down, the app will typically throw an error when it tries to connect or query the database, resulting in failed requests and possibly a crash or a user-facing error message, depending on how errors are handled in your backend code. On the frontend, if the API returns an error or an empty result set, you should handle this gracefully by showing a friendly message like “No items found” or “Something went wrong, please try again later” instead of leaving the UI blank or broken.
- **What Happens If DB Is Down:**
- The backend will fail to connect or query, often resulting in exceptions or error responses (like HTTP 500 Internal Server Error).
- If not handled, the app may crash or expose technical error details to users, which is not ideal.
- Good practice is to catch these errors, log them for developers, and send a generic error message to the frontend.

2. How to handle empty result sets gracefully on frontend?

- **Handling Empty Result Sets on Frontend :**
- Check if the API response contains an empty array or null data.
- If empty, render a clear message such as “No items found” or a placeholder graphic.
- Avoid showing a blank screen or confusing UI; always provide feedback so users know what’s happening.

3. Describe full flow: user requests data → API queries DB → response to frontend → frontend renders or shows “no items” message.

- **Full Data Flow:** User Request to Frontend Render
- **User requests data** (e.g., clicks “Show Tasks”).
- **Frontend sends API** request to backend (e.g., GET /api/tasks).
- **API queries the database** for the requested data.
- If DB is up, it returns results.
- If DB is down, it returns an error response (like 500).
- **Backend sends response to frontend.**
- If data is found, send it as JSON.
- If no data, send an empty array or object.
- If error, send error status and message.
- **Frontend receives response.**
- If data exists, render the items.
- If empty, show “No items found.”
- If error, show a friendly error message (“Unable to load tasks, please try again later”).