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Algorithms and Data Structure Narrative

For this milestone, I updated my Android Event Tracking App by adding a live search feature that improves how users interact with the list of events. Originally, the app simply displayed all saved events in a static list. With this enhancement, users can now search through their events in real time by typing into a search bar. As they type, the list updates instantly to match what they are looking for.

Behind the scenes, I used an ArrayList to hold the event data and an ArrayAdapter to connect it to the ListView. The adapter's built-in filtering method allowed me to implement the live search in a way that is both efficient and responsive. This means that as the user types, the app quickly scans the list and only shows events that match the search input. It creates a smoother experience without needing to reload the screen or make extra calls to the database.

From a technical perspective, this enhancement shows my understanding of how to work with data structures and searching logic. I selected the right tools for the job and kept everything lightweight by using Android's built-in components. I also avoided external libraries so the app would be easy to run and maintain.

After making the changes, I tested the feature using the Android emulator. Everything worked as expected. Events could be searched by name, date, or details, and the results showed up immediately with each keystroke.

This enhancement not only improved the app’s usability but also demonstrated my ability to apply algorithms and data structures in a practical mobile app setting. It made the experience more interactive for the user while showing clear thinking behind how the data is handled and displayed.