For this milestone, I decided to keep working on my event-tracking app. It’s an app I started earlier in the program that lets users create, manage, and get reminders for events. Since I already had the basics set up, I thought it would be a great project to show how much I’ve learned, especially with handling data and improving performance. I first made this app during one of my earlier courses when I was getting back into Android development.

I picked this app because it gave me a chance to fix how the data was being handled. Before, every time I added, edited, or deleted an event, the whole list would reload from the database. This wasn’t a big deal when there were just a few events, but as the list grew, it started slowing things down. To fix this, I changed how the app updates events. Now, it only updates the specific event that was changed instead of reloading everything. I also added caching to the ViewModel, so the app doesn’t have to keep hitting the database for the same data over and over again. This made things faster and smoother.

Another thing I worked on was switching from raw SQLite to Room Database. Room made the code cleaner and easier to manage. It also helped with handling data more efficiently. Using ViewModel and LiveData was also a big help because it made sure the data stayed updated even when the screen was rotated or the app was paused and resumed.

I also added sorting and searching features. Now users can sort events by date or name and search for specific events. This was a fun challenge because I had to figure out how to apply sorting and filtering in a way that didn’t slow down the app. It gave me a chance to practice working with lists and making sure the app responds quickly, even with a lot of data.

When I started this, my goal was to improve how the app handles data and make it run more efficiently. I think I hit that goal because the app now works faster, and the code is easier to read and update.

Working on this taught me a lot about finding the right balance between performance and keeping the code simple. One of the challenges I faced was making sure the data updates didn’t break any of the features that were already working. I also had some issues with background threads when trying to update the UI, which took some trial and error to fix. Overall, I learned how important it is to think through how data flows in an app and how small changes can make a big difference in how well it performs.