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The artifact I’m using for Enhancement Three: Software Design/Engineering is my CS-360 Mobile Architecture and Programming Weight Application. This is a full-stack mobile app built for Android devices, and I originally created it during the winter of 2024. I chose this project for my ePortfolio because it touches on several core areas of computer science. It shows that I can handle both front-end and back-end development, and it also integrates a database, highlighting my experience with MySQL and general database design. For this enhancement, I was working with the database side of the application. My goal for this enhancement was to create an additional database to make SQL querying more efficient. In my original database, I had a element that was a string of data that I needed to display and edit throughout my project. Due to the nature of Java, I had to do a lot of manipulation of the string jut to edit and read it out to the front-end interface. This led to changing data structures and inefficiencies within the code. This led me to create a completely new database, which would allow me to edit and transform each value of the original string from the original database which would allow me to edit and transform each value of the original string from the original database into separate, more manageable fields. This new database structure improved data manipulation by storing each weight measurement as an individual entry rather than a concatenated string. As a result, the app became more efficient, easier to maintain, and scalable for future features. Through this enhancement, I strengthened my skills in database normalization, SQL querying, and Android data persistence. Overall, this project demonstrates my ability to identify inefficiencies in software design and apply practical solutions to improve performance and maintainability. This entire process has taught me how many ways there is to create coding projects. There is no one “cookie-cutter” way if creating software but making sure it does the job efficiently is a must. When it came to this portion of the enhancement, I did not run into many issues that I was not able to solve quickly. All it took was a little time and patience to make everything run smoothly with the additional database.