The mobile weight-tracking app is designed to help users keep track of their daily weight and progress toward their weight goals. With a simple and user-friendly interface, the app allows users to input their weight, set their target weight, and monitor their progress over time. The app aims to provide an intuitive and efficient solution for individuals looking to maintain or achieve a healthy lifestyle. This was completed originally in March of this year.

selected the Mobile Weight-Tracking App for my ePortfolio because it represents a comprehensive project that demonstrates my ability to design and implement real-world solutions using core principles of algorithms and data structures. This artifact showcases not only my technical development skills but also my ability to consider user experience, platform compatibility, security policies, and monetization strategies. Thises are all great skills for software development.

the app features several components that illustrate my proficiency in data structures and algorithms. For example, it uses structured data models to efficiently store and retrieve daily weight entries and user goals. The internal logic includes the use of arrays or hash maps to associate dates with corresponding weights, allowing for fast access and updates. Algorithms were implemented to track weight trends over time, calculate progress percentages, and trigger SMS notifications based on conditional evaluations

The app also shows my understanding of how Android apps work, including how they manage different stages (like opening, closing, or pausing), how to keep the interface smooth and responsive, and how to handle data safely. I designed a user-friendly interface that works well with the app’s internal logic, showing my ability to connect the front end with strong back-end support. Using only the necessary permissions also shows that I follow good security practices.

This project clearly demonstrates my ability to use data structures and algorithms to build a useful mobile app. Including it in my ePortfolio highlights my technical skills, problem-solving abilities, and my readiness to work on real software projects.

What I wanted to do for the upgrades for this code would be to make it more clean and work with less bugs. Originally in module one I thought I would be able to use another project for this but after working on it I knew that I had to try to work on another project to better display algorithms and data structure.

The enhancements and modifications made across files focused on improving readability, usability, and maintainability. First, the code was cleaned up and reformatted for consistency, with proper indentation, spacing, and logical grouping of variables. Detailed comments were added throughout all files to explain the purpose and logic of each class, method, and operation, making the code easier to understand and maintain. In the DatabaseHelper class, improvements included clearer SQL queries, the use of parameterized queries to prevent SQL injection, and proper closing of database resources like cursors and connections to avoid memory leaks.

The login and registration logic in MainActivity was enhanced by trimming user inputs, adding input validation to check for empty fields, and improving user feedback with informative Toast messages. The HomeActivity file was updated with comments and prepared as a placeholder for future features, such as dashboards or progress tracking. The project now follows best practices in Android development, with better structure, secure data handling, and a scalable foundation for future growth.