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CS-360 Project One

I am choosing Option 3: Weight Tracking App. The main purpose of this application is to first create a username and password to log in, enter a goal weight, and then every day enter a weight and when you hit your goal weight inform the user that the goal is reached. There needs to be 3 tables that hold the username and password, the goal weight, and all the daily weights. I would assume we are using a SQL database since we are dealing with tables, and NoSQL is less structured. For user interfaces there needs to be a login, create account, add/change goal weight, and add daily weight. These in turn should print out a chart to show daily weight and goal weight, and some sort of notification when the goal is reached.

There are really two distinct types of apps that are in the weight tracking category. The majority of them are weight loss like Lose Weight App for Women / Men or Calorie Counter - MyNetDiary, and there are a handful designed for weight gain like Weight Gain: 30 Days Diet Plan. Every single weight tracking app that promotes weight loss is connected to some sort of meal plan / calorie tracker, or workout plan (usually HIIT), or both. Interestingly enough this is the exact same for weight gain, although those are more focused on weightlifting and getting enough protein.

The target audience for this type of application is anyone that is concerned about their weight, be it losing weight or trying to gain weight. I feel like the largest number of users would be wanting to lose weight, and it shows with a simple search of the weight apps. There are tons of them already and you would have to have something groundbreaking to get any traction in that market. It would be way easier to market to weight gain users, but even that wouldn’t be easy because there is a decent amount of those apps and calorie counters anyway. The group that I would go after is parents of newborns. My sister just recently had another baby and she and her husband are constantly talking about his weight. While there are a couple of apps designed to keep track of newborn and toddler weights, there aren’t that many. You could possibly compare the baby’s weight to a database of weights to age and show a percentile, cause that’s another thing I hear all the time. The time to engage with this app would be minimal, since you only need to enter a weight once it is set up.

The first activity screen I would have would be a login / create account screen. If the user had an account, they would login and then it would go to the next activity. If not, the user would create a new account through a separate activity, which would link back to the login screen when finished. Once logged in, it would go to an activity screen (home page) showing all weights on it, an option to enter today's weight, and an option to set / change the target weight. The chart would be fairly simple, showing the users daily weights, the target weight beside those, and maybe a column that shows when you have reached the target weight. The option to enter today’s weight would be another activity, and link back to the home page once the new weight was entered. The option to set / change the target weight would be a very similar activity and return to the home page once entered. I suppose there might need to be a log off activity as well that returns to the login screen, or maybe it's not necessary if you just force the user to close the app when finished. All of the screens should be centered vertically and horizontally except the home page, which would be a list of the weights in table form with add weight and change goal buttons above the table. I would cap the number of weights displayed to whatever fits on the screen without having to scroll and have page forward / back buttons below the table.

For the actual functional data in the app, on the login screen if the user enters a username and password clicking submit would search the database table for the username and ensure the password is the same as the one in the table. If the username is not found display a message for that, and if the password is different display a message for that. If the user creates an account, it will add the username and password to the table. Once the user is logged in, we need to display the table of their weights. Since it seems like we are using a single table to keep track of all the weights, we need to only print out the weights that have to username of the current user. For the add today's weight button, we would need to insert the weight and the username into the table, so we know which user is associated with which weight. In the change / add goal weight button, we would first have to search and see if the username already exists in the table, and if so, change the weight, and if not, add the username and weight. The last function that our application needs to do is determine if the user has reached their goal. This can be accomplished after the first weight has been input and a goal has been set. The way I will do this is take the first weight and subtract the goal weight. If that number is positive, they are trying to lose weight. If it is negative, they are trying to gain weight. Then we can subtract the daily weight from the goal. If it is positive, they are over the goal and negative would be under the goal. We can write a simple if statement like: if firstWeight – goal > 0 && todaysWeight – goal <= 0 then you have met your weight loss goal, and if firstWeight – goal < 0 && todaysWeight – goal >= 0 then you have met your weight gain goal. There are a couple of circumstances that aren’t included in this such as if you change from weight loss to weight gain, but I can’t imagine that this would be very common.