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**Enhancement One Narrative**

1. **Briefly describe the artifact. What is it? When was it created?**

The artifact that I selected for this category is my mobile Android application, which I named *Fit Goals*. This was originally developed in my CS-360: Mobile Architecture and Programming class. The app’s purpose is to give users a simple platform that allows them to track their daily weight and set a goal weight. It includes features like login and registration, a dashboard now with data visualization, SMS notification toggling, and the ability to edit and add weight entries. The original version was functional but was very basic in its style and design, making it feel like an app that wouldn’t realistically be taken to market.

1. **Justify the inclusion of the artifact in your ePortfolio. Why did you select this item? What specific components of the artifact showcase your skills and abilities in software development? How was the artifact improved?**

I chose this artifact for a couple of reasons. First, it’s one of the most recent projects that I’ve done, having completed this one just last term, so the memory was still fresh in my head. Second, and more importantly, I think it provided a solid opportunity for me to demonstrate improvement in software design and engineering. The original app had a strong backend foundation, but the frontend was completely lacking in its visual aspects. By enhancing the design and UI, I was able to show my skills in Android UI design and UX best practices, along with smaller things like theme and color consistency. Some of the specific enhancements made included applying a custom gradient background across all the app’s activities to give a consistent, visually appealing theme. I also updated all the buttons and input fields with more modern styles. I also replaced the ugly orange and purple UI elements with a cohesive blue theme that matches the gradient. Finally, the big functional enhancement is the addition of the line graph on the dashboard. The original app displayed the daily weights in a grid format. I replaced that with a visual line graph that shows the user their progress in a more visually appealing form. All of these not only show my abilities in Android software development but also shows my ability to improve an application’s usability and accessibility.

1. **Did you meet the course outcomes you planned to meet with this enhancement in Module One? Do you have any updates to your outcome-coverage plans?**

The outcome I planned to meet with this enhancement from Module One was Course Outcome #4 (Demonstrate an ability to use well-founded and innovative techniques, skills, and tools in computing practices for the purpose of implementing computer solutions that deliver value and accomplish industry-specific goals (software engineering/design/database). I definitely believe that I fully met this outcome by improving this app’s design for real-world usability and adding a visually appealing data visualization component. Also, the integration of the MPAndroidChart library shows my ability to use external tools and frameworks within a project. I don’t currently have any updates to my outcome-coverage plan at this time.

1. **Reflect on the process of enhancing and modifying the artifact. What did you learn as you were creating it and improving it? What challenges did you face?**

Trying to enhance and modernize this app taught me a lot about how important it is to really think about design and intuitiveness when it comes to applications. It was especially rewarding to implement the line chart. It required me to transform weight data into entries that are able to be plotted on a graph. I also styled the graph to match the application’s overall theme. I also added labels, axes, and a description that tells the user that if they lost weight, the line will be green, and if they’ve gained weight, the line will be red. These skills are obviously relevant to any modern app involving data like this.

One of the biggest challenges that I faced was trying to get a consistent look and style across all the pages. You would think that just copying and pasting theme code would work, but it didn’t quite work like that. Another challenge was integrating the chart while not losing performance and ensuring that the chart would update whenever a new weight was added.