Strengths and Weaknesses of the Process Used

Our team used the Waterfall approach to complete this project. A major strength of this approach was that it gave us structure. Having clear steps helped us organize our work and complete the steps in a clear order. Creating our Requirements first helped us know what we needed when we started coding. However, the Waterfall approach also showed weaknesses compared to Agile methods. Once we moved past the requirements and design stages, it was more difficult to incorporate changes or adapt to new ideas. For example, when issues were discovered during coding and testing, we had to revisit earlier work that had already been “finalized.” This slowed down our progress. In an Agile process, we would have been able to iterate more flexibly, continuously testing and refining as we developed.

Comparison of Actual vs. Expected Outcomes

At the beginning, we expected that following the Waterfall process would give us a smooth, linear progression from requirements to a working system. In reality, our project did not flow as cleanly. Some of the requirements generated in the early phase were too broad and some requirements we didn't even have in our report. Similarly, while the class diagrams gave us a general blueprint, the actual coding phase required adjustments and debugging that were not fully accounted for. Despite these challenges, the final outcome met our core goals. We successfully created a functioning project that matched the given requirements. The biggest difference between expected and actual outcomes was the amount of iteration needed.

Influence of ChatGPT on Requirements, Design, Coding, and Testing

ChatGPT sped up our process but wasn't always reliable. It gave us a starting point for requirements, designs, and even code, which saved us time. However, its outputs often needed revision or debugging. In short, it helped us move faster, but we couldn't depend on it without double-checking everything. A lot of the time, it gave very complex outputs which drifted from the original project specifications. Some ideas we kept, but many we removed to save time and reduce complexity and drift too far from our original requirements. Please check the AI Usage Report to see more specific instances.