

## CRITERION A: PLANNING

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### SCENARIO:

My client is Timothy Edward Gray, and my advisor is Sandesh Tilapudi, who has 15+ years of experience as a Software Engineer. His expertise within Java Android Development will provide me with valuable guidance. My client has been an avid “betting man” for a great deal of time. He has made harmless wagers on pop culture phenomena but has yet to find a way to apply this passion in a tangible manner. In our initial consultation, he expressed desire in a mobile application that allows him to “invest” in upcoming books. In our first consultation, he requested these specific features:

1. Being able to invest in books using virtual currency.
2. Valuation of cultural products fluctuates based on product’s real world popularity and public interest, simulating a real market.

Evidence of this consultation can be found in the appendix (Appendix B)

**Main Takeaway (Problem):** Client is gifted in the art of predicting but has not found a way to gamify this. Absence of a competitive, measurable way to gauge and reward accurate predictions in the realm of literature success.

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### RATIONALE:

**Solution:** The proposed solution is a mobile application developed for Android, utilizing Java and Firebase. This platform will enable users to "purchase" shares in books using virtual currency.

The platform will be an Android application, developed in Java. The solution is appropriate, as my client expressed desire for an on-the-go app for accessibility. I will be using Android Studio and a Firebase backend. Firebase’s real-time database will be especially useful for the constant, frequent, fetching from APIs to evaluate the popularity (and hence price) of products. The real-time database allows for instant updates to investment values based on media performance metrics. This development process will make me more proficient in the Android development environment. Furthermore, I will learn how to use databases and practicing backend development are some things I have not explored before, allowing me to expand my computer science knowledge.

**Word Count: 377**

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**SUCCESS CRITERIA:**

1. High Priority: Users *must* be able to create an account with a valid email and password with at least 8 characters and use it to sign in.
2. High Priority: Users *must* be able to browse through different books
3. High Priority: The system *must* allow users to make investments but validate each investment action to ensure the user has sufficient virtual currency after transaction arithmetic.
4. High Priority: The app *must* update investment values with data fetched from verified sources and APIs every instance.
5. Medium Priority: The app *should* allow users to add any amount of currency to their account.
6. Medium Priority: The app *should* allow users to view and manage their current investments, including amounts invested and current virtual currency value.
7. Low Priority: When user closes application, the system *should* log the user off, and prompt them to relog in for the next instance.