Contextualization/Design Check-In

Group 23 - Alex, Jack, Luke, and Reid
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Overview

01 Product Design Overview

02 Artifacts

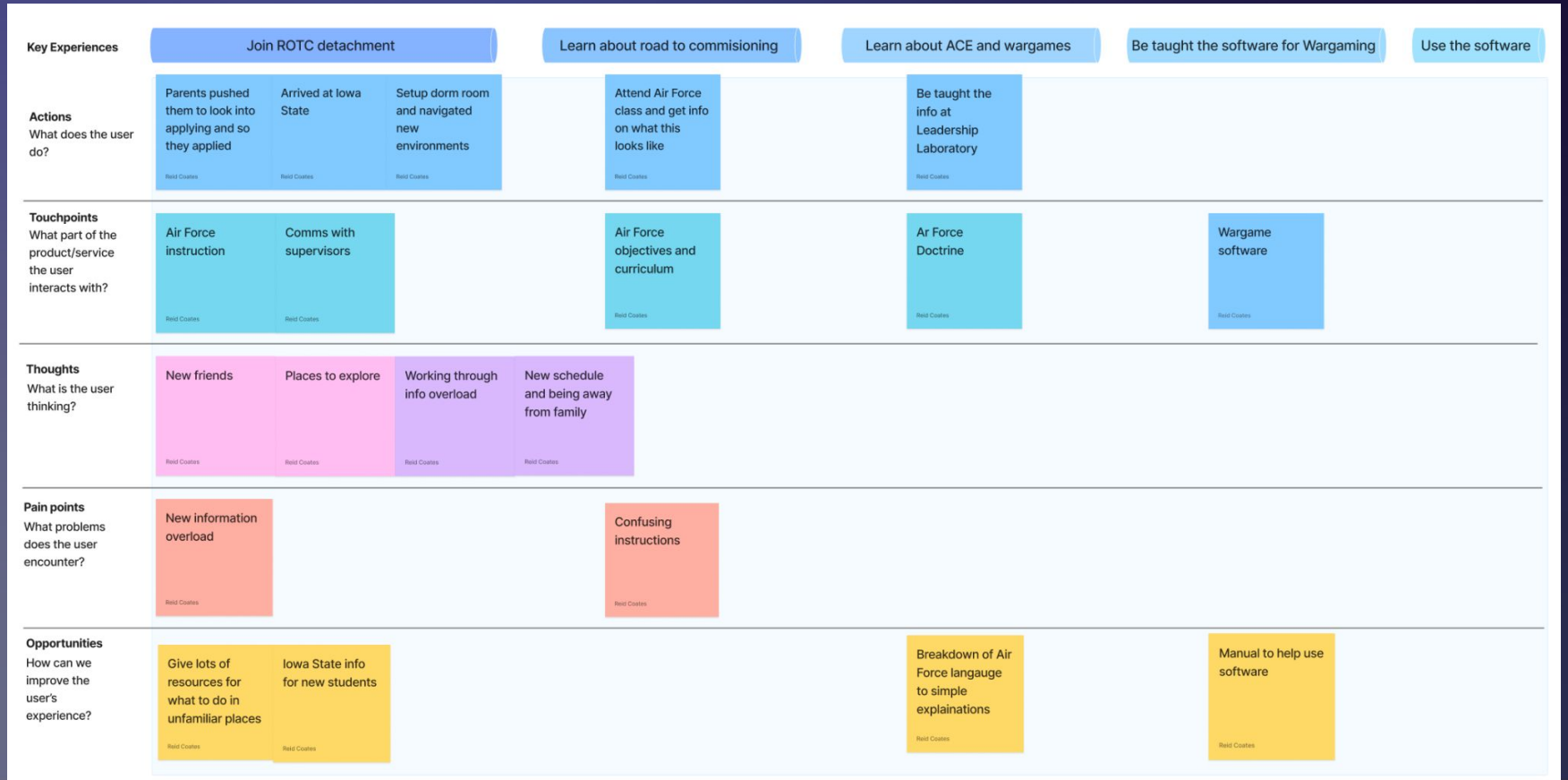
03 Human Aspects

04 Economic Factors

05 Technical Justifications

06 Conclusion

Artifact: Journey Map for AFROTC



Artifact: Pros and Cons for market alternatives

Our current solution vs. researched alternatives

WARHAMMER 40,000

KINGFISH ACE

TOTAL WAR

Pros

What are the advantages?

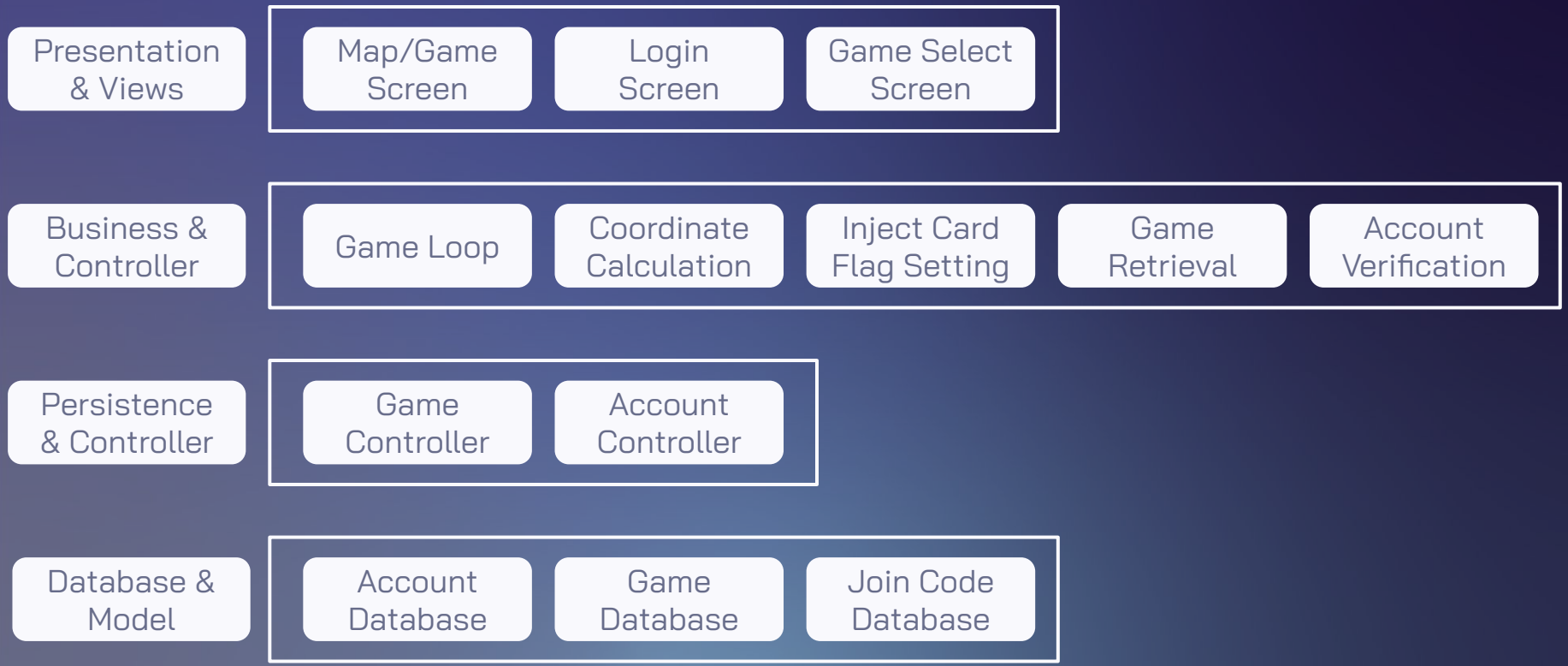
- War hammer is very popular and has a huge community to help learn how to use it and the very niche aspects of the game — Reid Coates
- War hammer is a huge company with multiple content updates occurring every year. — Alexander Hassan
- Total War games are relatively affordable and are optimized to run on a wide variety of computing hardware. — Luke
- Total War games have multiple factions and take place over a huge time range as opposed to one decade. — Alexander Hassan
- Kingfish ACE is an established game that has already all of the rules implemented and would be easier to teach from the perspective of instructors who already have experience with the game. — Jack Kelley
- KF ACE has the full support of the DoD and mimics reality very closely leading to being complex but accurate — Reid Coates

Cons

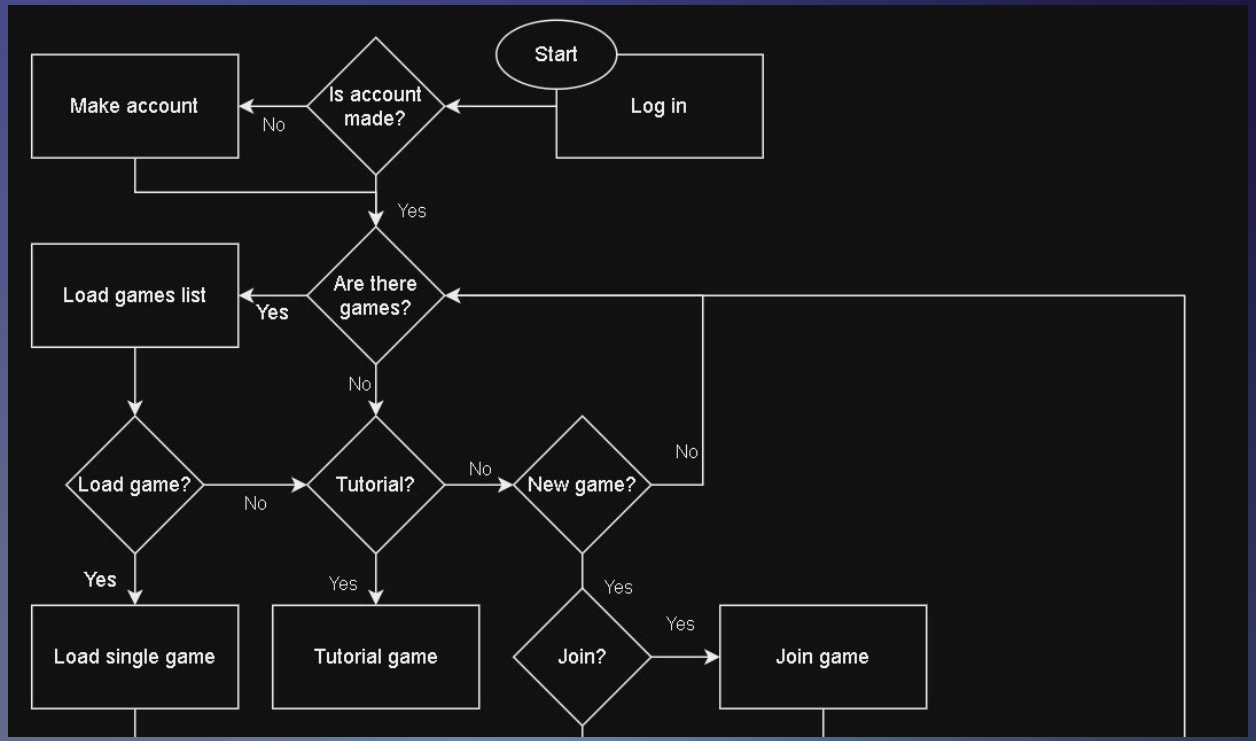
What are the disadvantages?

- Warhammer does not actually teach the ACE strategy — Jack Kelley
- Warhammer is expensive to play — Alexander Hassan
- Total War does not actually teach the ACE strategy — Jack Kelley
- Total War does not offer an environment to learn in a modern- day setting. — Luke
- Kingfish ACE is a complex game that takes a long time to learn — Jack Kelley
- Kingfish ACE is a board game that has a cost to acquire all of the pieces, and is also less accessible as a result of having to acquire physical game pieces — Jack Kelley

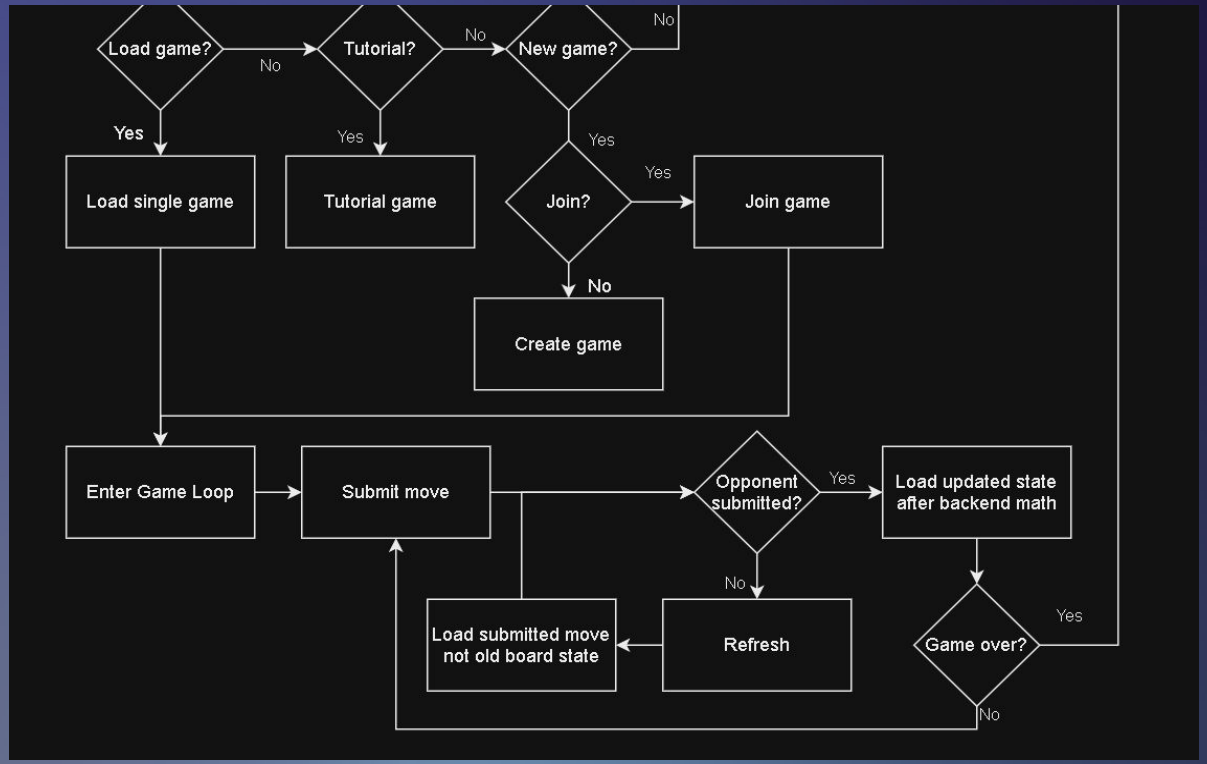
Artifact: Design Visuals (MVC / Layered Design)



Artifact: Functionality (Use Case Pt 1)

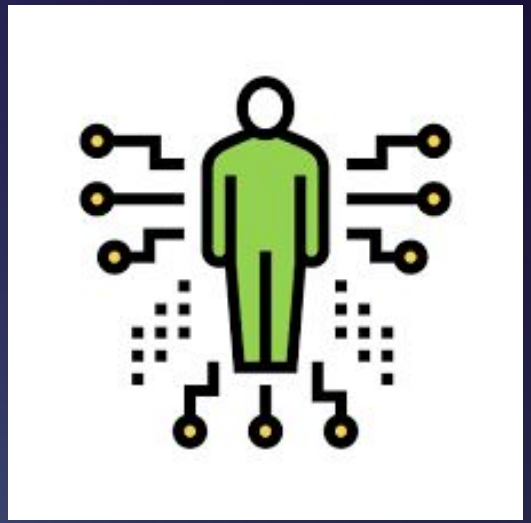


Artifact: Functionality (Use Case Pt 2)



Human Aspects

- Consider the information overload and confusion experienced by users in war games.
- We can Improve user experience by making a set of instructions and simple buttons for navigating the player’s assets and controls.
- Breaking down the Air Force acronyms would enhance the solution's usability.



Economic Factors

- Cost savings compared to board games like Warhammer and Kingfish ACE; no need for purchase of physical game pieces.

- Drawback: future updates must be made by an engineer. This is justifiable because the the nature of the software must be complex in order for the game to benefit its users.

- Smaller costs associated with maintenance of the physical hardware that holds the database in future years; plan is to host the backend system on a Raspberry Pi as opposed to a VM

Technical Justifications

Using layered design and frontend/backend uses skills taught in previous classes. We have expanded by adding security ideas taught in our design classes and by taking a physical experience and turning it digital which uses the skills taught by completing assignments and projects after finding our own constraints.

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