

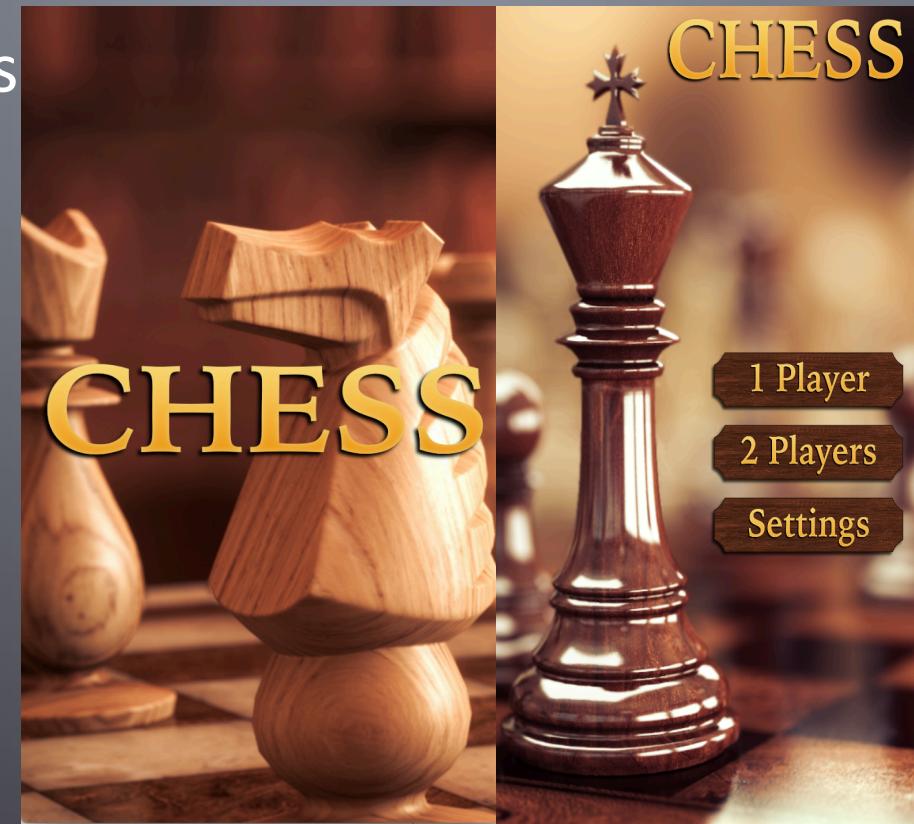


Chess App: Architecture

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Chess iOS App Overview

- Our application is a mobile edition of the popular game chess!
- Two different game modes
- 3D model
- Background music
- AI implementation





Architectural drivers

- Event style processing of data
- Interaction between multiple classes
- Use of reusable components
- Object inheritance
- Don't need to connect the user to the internet, server or database
- Needed an architecture that supports an interactive user interface
- Simple and Effective

Architectural Choices

Pipe & Filter

- We can reuse filters for other pipes
- Ease of development
- Adding components is as simple as “changing the filter.”

Layering

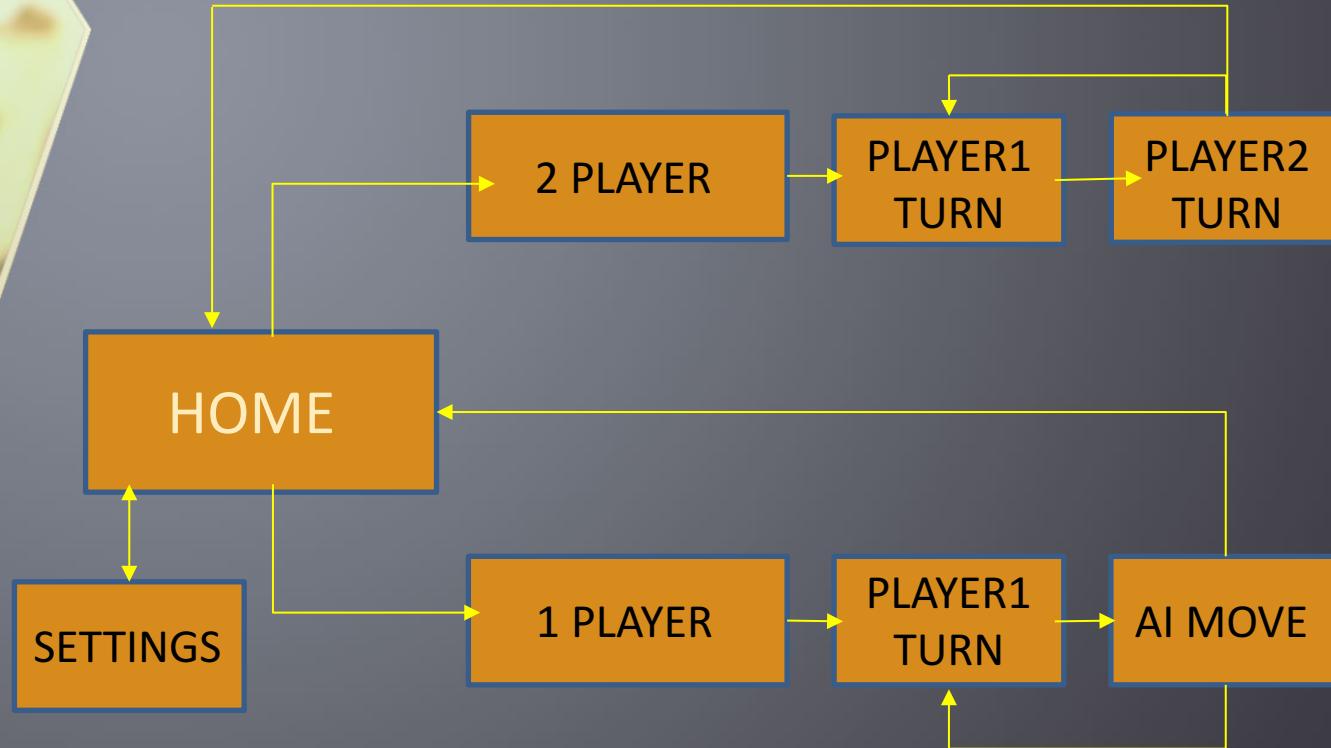
- Works well locally
- Simple and easy organization

Event-Driven

- Event generator
- Even handler
- CPU will handle next event based on users chess move

We decided to utilize the Pipe & Filter architectural style, due to it better showing how we want to design the game and how we want the game to function. Another reason is because Xcode doesn't support layering well.

Our Architecture





Conclusion

- **Pipe & Filter style was chosen to better match our design ideals.**
- **Issues: Game Loop**
- **Risks: Scaling issues if there are too many pipes and filters.**

QUESTIONS?