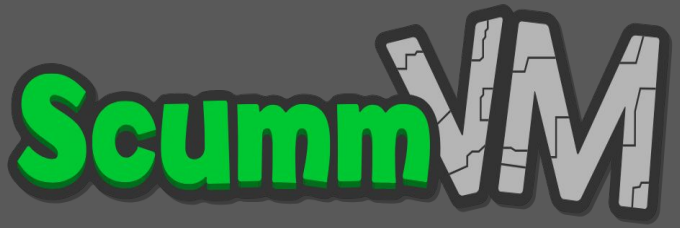
CISC 322/326



Conceptual Architecture Presentation

Youtube Link: https://youtu.be/_BYNVxOxVNQ

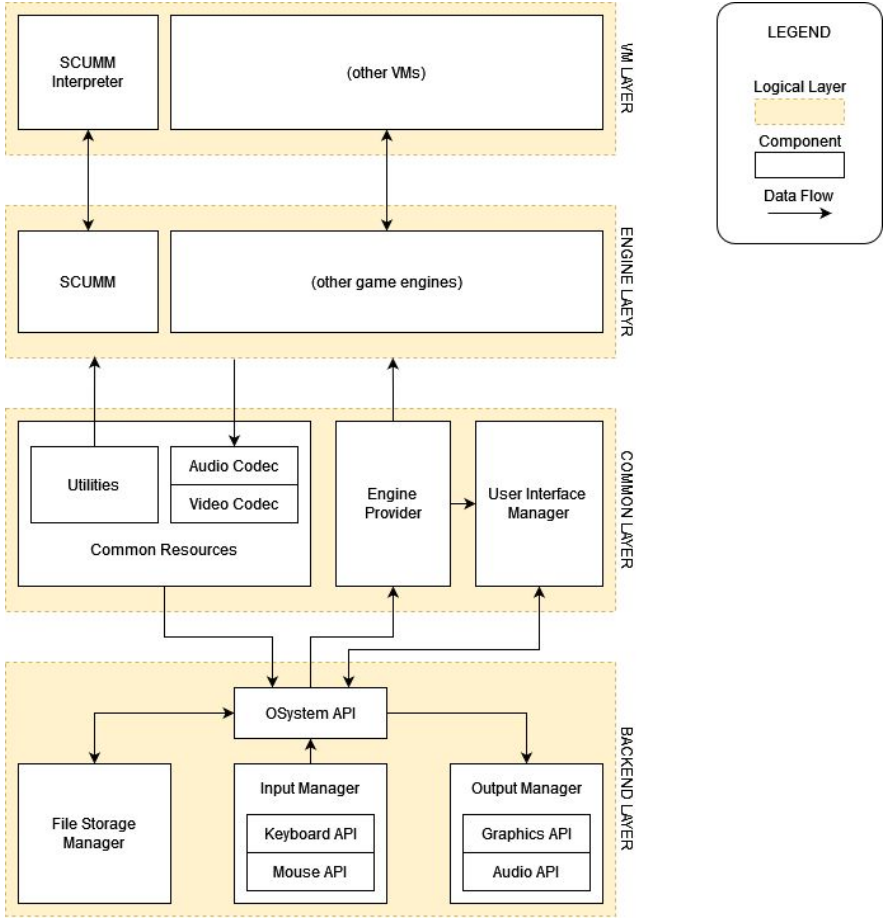
Group Roles

Group Name: MAWLOK		
Team Lead: Owen Meima	Presenters: Michael Marchello Andrew Zhang	Members: Lance Lei Kevin Panchalingam Zhuweinuo Zheng

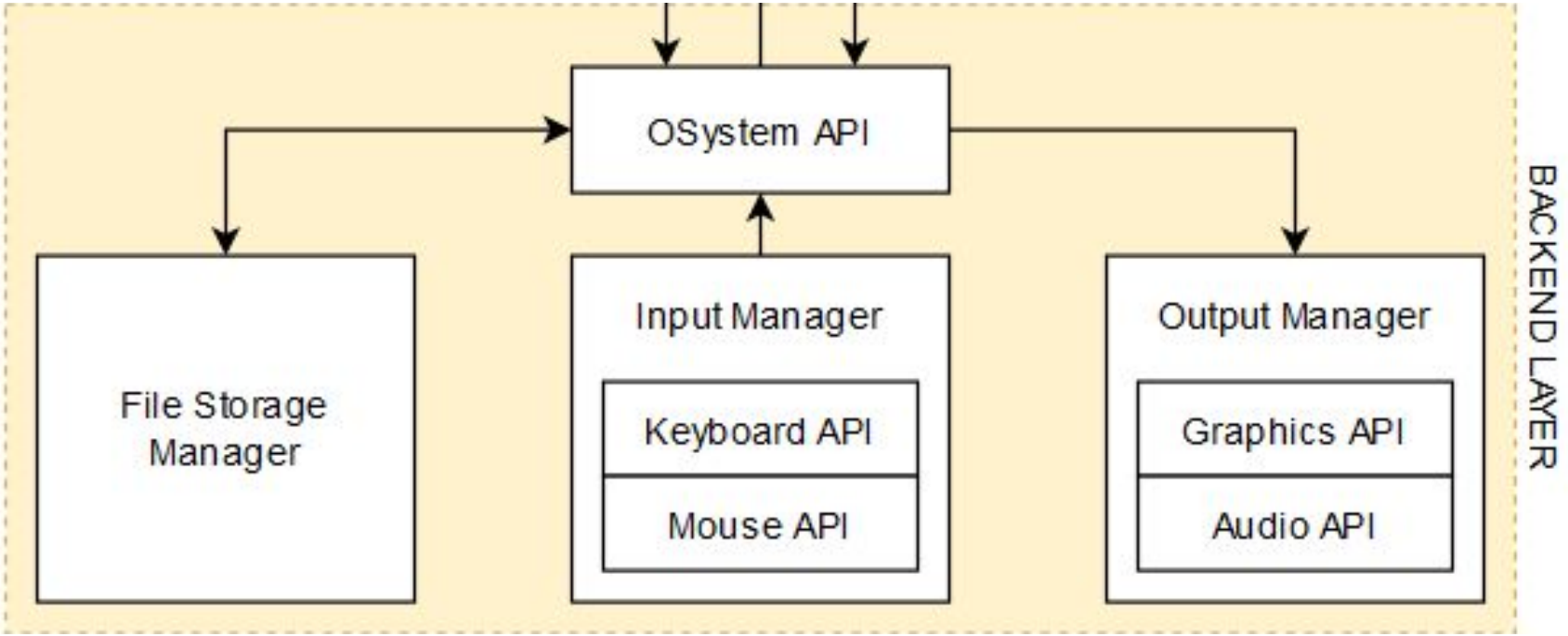
Introduction

- Runs old games
- Open source

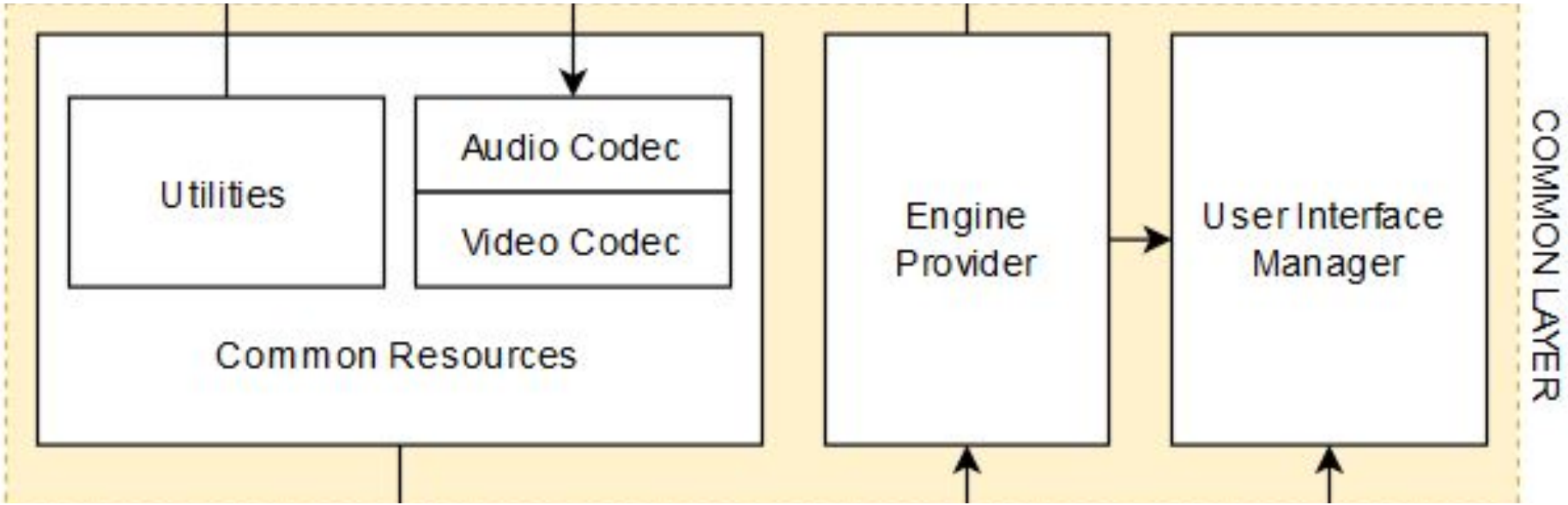
Conceptual Architecture



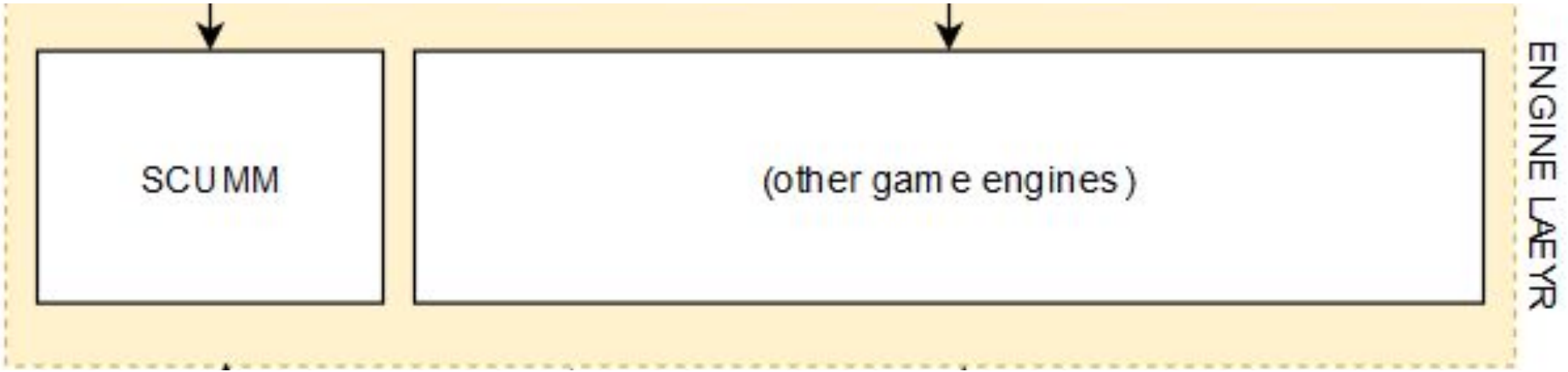
Backend Layer



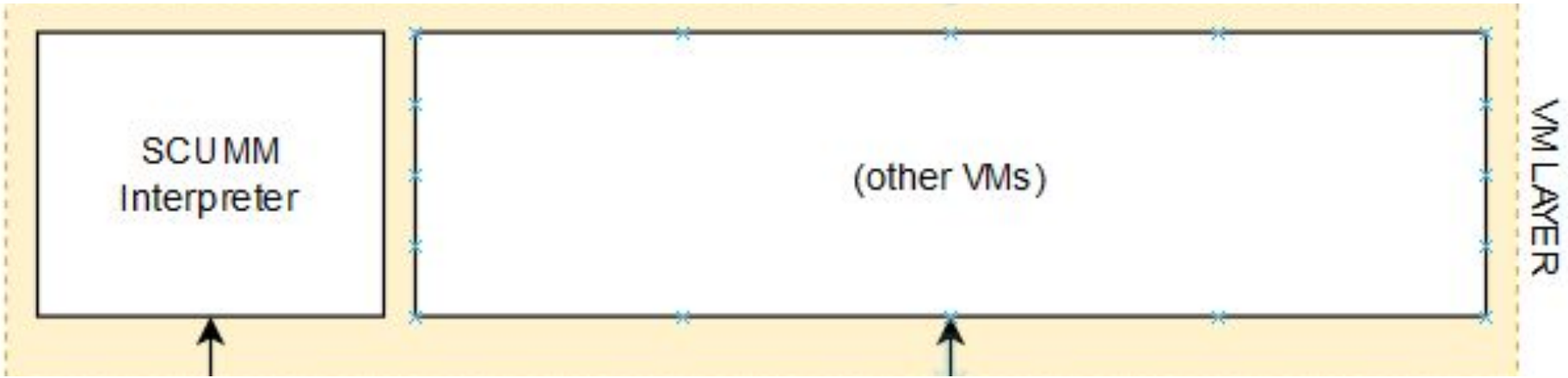
Common Layer



Engine Layer



Virtual Machine Layer



Non-Functional Requirements

Usability

Performance

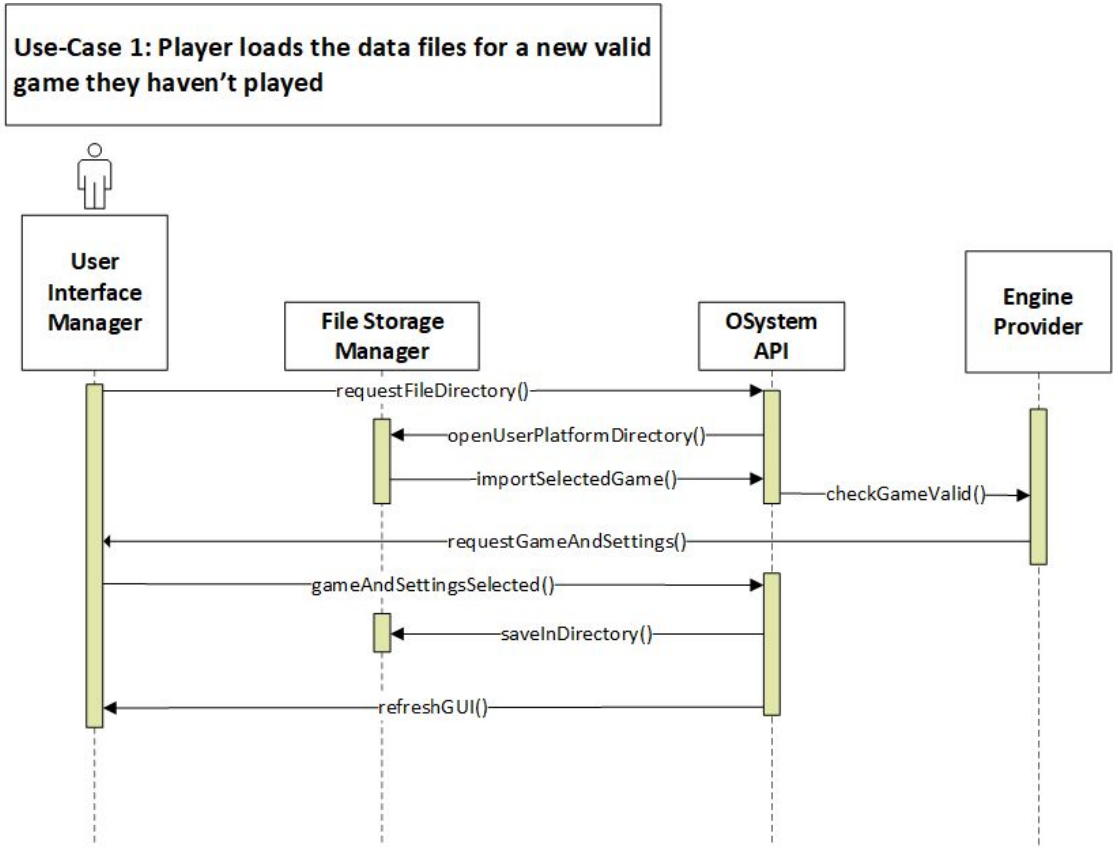
Portability

Maintainability

Scalability

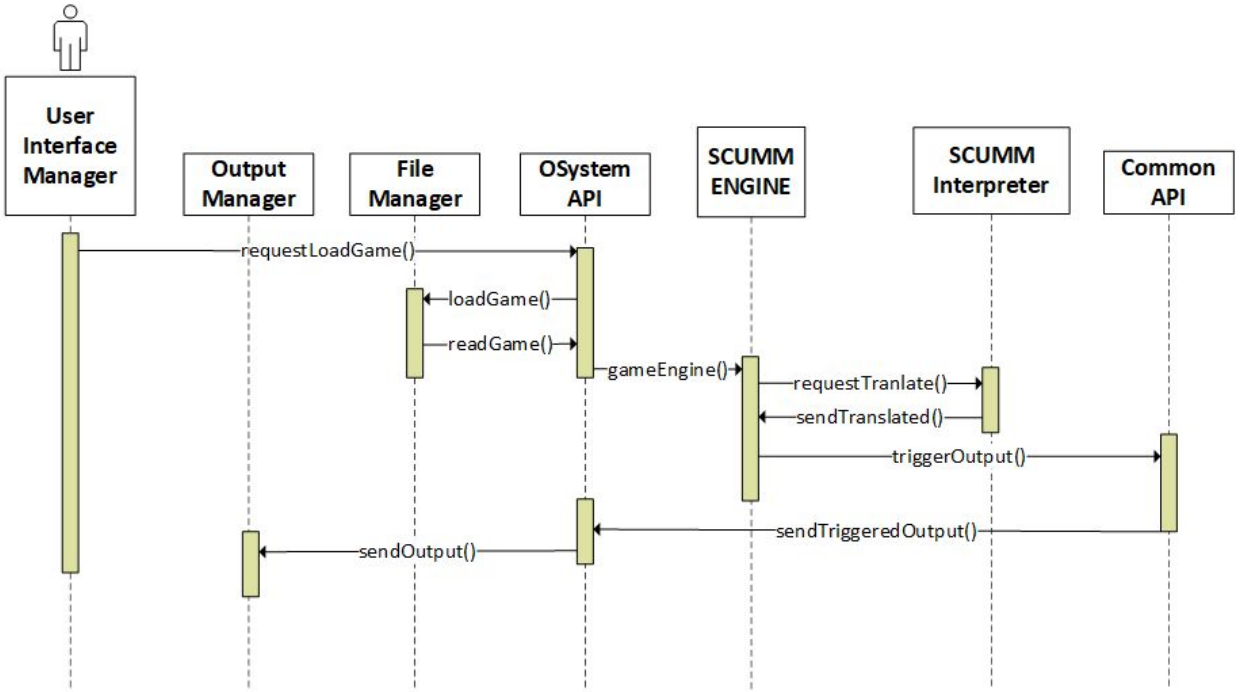
Reliability

Use Case I


Use-Case 1: Player loads the data files for a new valid game they haven't played
User Interface Manager
File Storage Manager
OSystem API
Engine Provider
requestFileDirectory()
openUserPlatformDirectory()
importSelectedGame()
checkGameValid()
requestGameAndSettings()
gameAndSettingsSelected()
saveInDirectory()
refreshGUI()

Use Case II

Use-Case 2: Player loads a previously added SCUMM engine powered game



Derivation Process and Lessons Learned

Research

- Research wikis, QA forums, and official discord of ScummVM.
- Determined the architectural style, components, and roles each component would play.

Brainstorming

- Arranged the five main components.
- Determined how to trigger an event from the user interface.

Determining Architecture

- Recognized where the components we identified in sequence diagrams fit in with the previously mentioned five main components used in ScummVM's code base.

Limitations of Reported Findings

- Did not consider source code due to time constraints.
- Only focussed on Conceptual Architecture.

Conclusion

- Highlighted the main attributes and conceptual architecture of ScummVM, using a style that reflects component interactions, data flow, and resource usage.
- Organized system components into layers based on their common functionality and identified Non-Functional Requirements to describe software effectiveness.
- Developed two use cases and illustrated them with sequence diagrams, detailing system functionality.