

# Design Document - Group036

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Group Member :

Jialun Chen, Wise Chua, Xinyuan Wang, Yao Zhou,  
York Chen, Yuezheuxan Zhu, Ziqian Gao

# Group Members' Contributions for Phase 2

**Jialun Chen** - Check Log In and write test for UseCase and LogIn. made minor debug for Controller and UseCase.

**Wise Chua** - Complete GUI for whole game, transform from Command Line UI to GUI. Implement all GUI Frame. Added Testcase for usecase and entity.

**Xinyuan Wang** - Revise the structure to follow SOLID and Clean Architecture. Last check SOLID and Clean Architecture. UML diagram.

**Yao Zhou** - Part of GUI design for the game part. Add docstring to most classes.

**York Chen** - Complete GUI for login system, writing docstring for controller, entity and login system. Writing test for entity and controller.

**Yuezhexuan Zhu** - restructured the project, Implemented login-gamerun Interaction, added some GUI features, and write useCase tests

**Ziqian Gao** - wrote progress report.md for phase 2, modified BGM and UI function for UI class, made minor debugs for UseCase class structure, marginally contributed in writing UseCase test

# Significant Contributions

**Jialun Chen** - [https://github.com/CSC207-UofT/course-project-bugwatcher\\_group036/pull/37/files](https://github.com/CSC207-UofT/course-project-bugwatcher_group036/pull/37/files)

Login system code login construction

**Wise Chua** - [https://github.com/CSC207-UofT/course-project-bugwatcher\\_group036/pull/63](https://github.com/CSC207-UofT/course-project-bugwatcher_group036/pull/63)

Transform whole Command UI to GUI. Ensure GUI follow MVC/MVP and clean architecture.

Implement testcase after transforming to GUI and clean all IntelliJ warnings

**Xinyuan Wang** - [https://github.com/CSC207-UofT/course-project-bugwatcher\\_group036/pull/57](https://github.com/CSC207-UofT/course-project-bugwatcher_group036/pull/57)

Revise the re-construction of the project to follow clean architecture and SOLID.

**Yao Zhou** - [https://github.com/CSC207-UofT/course-project-bugwatcher\\_group036/pull/97](https://github.com/CSC207-UofT/course-project-bugwatcher_group036/pull/97)

Add docstring(earliest version of GUI was designed by me but revised and pulled by someone else)

**York Chen** - [https://github.com/CSC207-UofT/course-project-bugwatcher\\_group036/pull/60/files](https://github.com/CSC207-UofT/course-project-bugwatcher_group036/pull/60/files)

Structural change in login GUI, and basic GUI settings

**Yuezhexuan Zhu** - [https://github.com/CSC207-UofT/course-project-bugwatcher\\_group036/pull/55](https://github.com/CSC207-UofT/course-project-bugwatcher_group036/pull/55)

Restructured the program as the basis for phase 2 construction

**Ziqian Gao** - [Eliza zoldyck by ElizaZoldyck · Pull Request #1 · CSC207-UofT/course-project-bugwatcher\\_group036 \(github.com\)](#)

contributed building the whole entity class and usecase class as the basis for phase 0 construction

# Project Specification

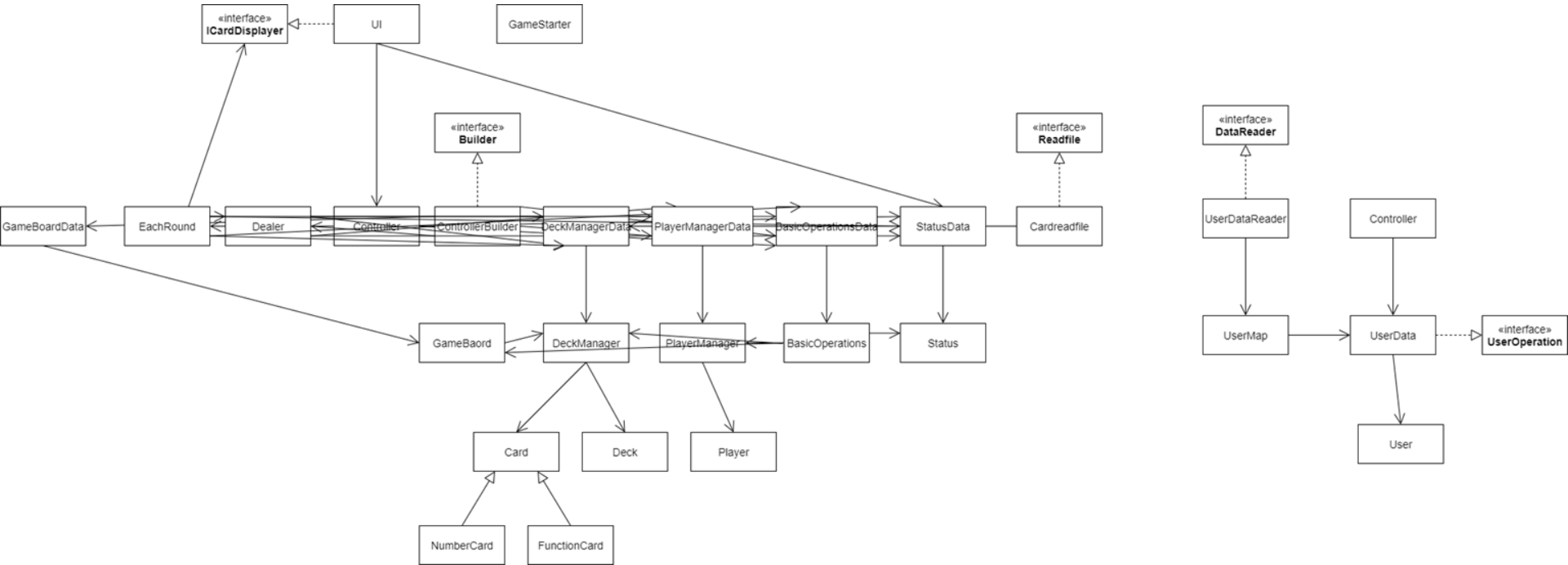
- Aspect of Basic Setting
- Aspect of design pattern
- Aspect of GUI



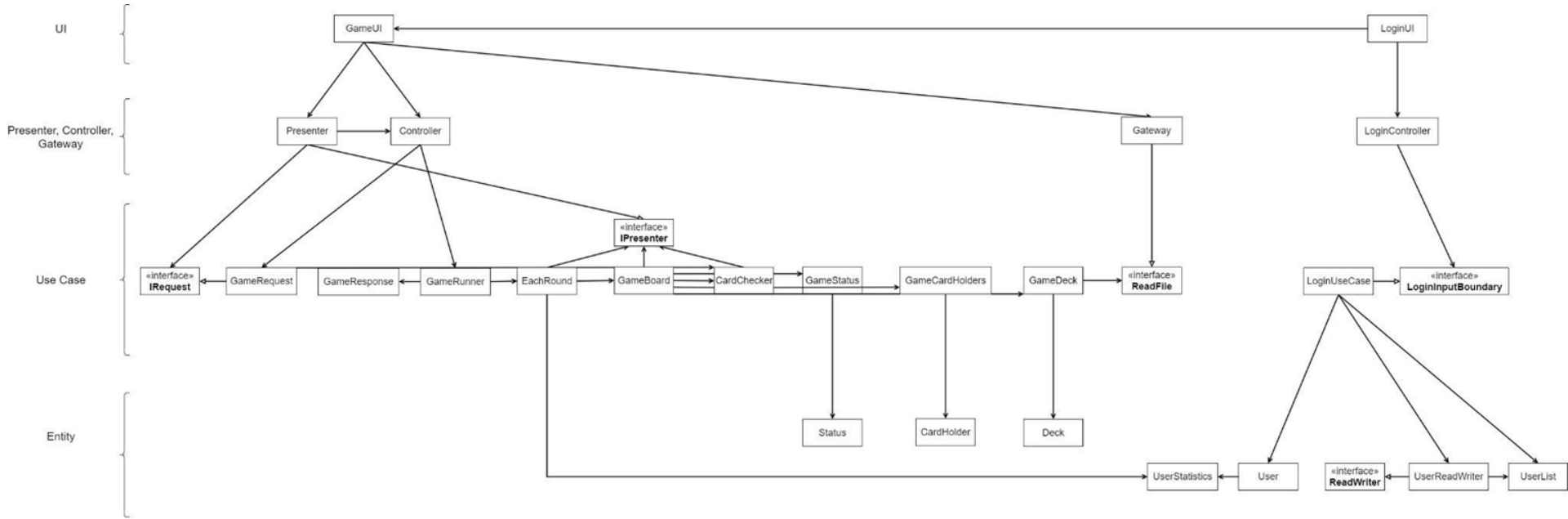
# how your project adheres to Clean Architecture

- clearly separate classes into four layers
- follow layer-by-layer rule
- dependency inversion pattern

# UML (Phase 1)



# UML (Phase 2)



# Major Design Decisions:

- Restructure: Use the Presenter, move class from controller to UseCase, Change the structure of our data(card).
- Now log in system stores game data.
- Use serializable to construct log in system.
- The GUI: Added music and animation, make the game much interesting.
- Design Pattern: Iterator, Builder.



# how your project is consistent with the SOLID

- Intro
- OCP
- LSP
- ISP
- DIP
- SRP
- Con

# which packaging strategies you considered

Login --Layers strategy

Uno--Layers strategy

# Design Patterns

## Implemented:

- CardHolder Class - Iterator
- PVE/PVP Frame Class - Builder

## Change From Phase 1:

- Due to Restructure from Command UI to GUI and PVE mode
- All Design Pattern in Phase 1 was redesigned
- Builder Class build PVP/PVE Frame

## Possible implementation in Future:

- Memento - Undo Game State
- Strategy Pattern - PVE Mode

# progress report

- what has worked well so far with your design (reflection)
- **a summary of what each group member has been working on and plans to work on next**
- **Future TODO**