

Plan of Attack

UML – see [uml.pdf](#)

Breakdown of plan

Part of the project	Estimate Finishing Date	By
.h file	Nov 28	Wenxue
View(textdisplay)	Nov 29	Hongjun
Control	Dec 1	Hongjun
Model	Dec 1	Wenxue
Debug	Dec 2	Both
Documentation	Dec 3	Both

Q&A

Question. After reading this subsection, would the Observer Pattern be a good pattern to use when implementing a gameboard? Why or why not?

Yes. For example, a subject could be squares/cells, and the observers could be gameboard(based on data in the cells). When cells change, the gameboard update accordingly. The each square can attach the board(observer) to notify it the change.

Question. Suppose that we wanted to model SLC and Needles Hall more closely to Chance and Community Chest cards. Is there a suitable design pattern you could use? How would you use it?

Factory method pattern. If we want to model SLC and Needles Hall more closely to chance and community card, we could make them like a card drawing factory to draw cards object. Those cards objects will have the effect on player/boards rather than just letting the square notifying them. SLC and Needles Hall can inheritance from the abstract factory class with a drawCard method. This way, the cards create the outcome which is more closely modelled to chance and community chest cards instead of just random a number and take effects.

Question. What could you do to ensure there are never more than 4 Roll Up the Rim cups?

Something similar to a singleton design pattern. Add a static int in the RollUp class counting numInstances. Each time one is created it goes up by 1. It can only be created with the getInstance

method and only if the instance count is less than 4. Each time a RollUp is used and instance decreases by 1.

Question. Is the Decorator Pattern a good pattern to use when implementing Improvements? Why or why not?

No. If we use decorator pattern for improvements, the only thing that changes is the number of the improvements and the tuition with it. Each level of improvement has to closely follow the previous one. Also the tuition has no particular relationship with the previous level. It wastes too many efforts of writing the 5 additional improvements level and takes more space. Instead, one can simply put an array with the tuition cost and an attribute with number of improvements on the square.