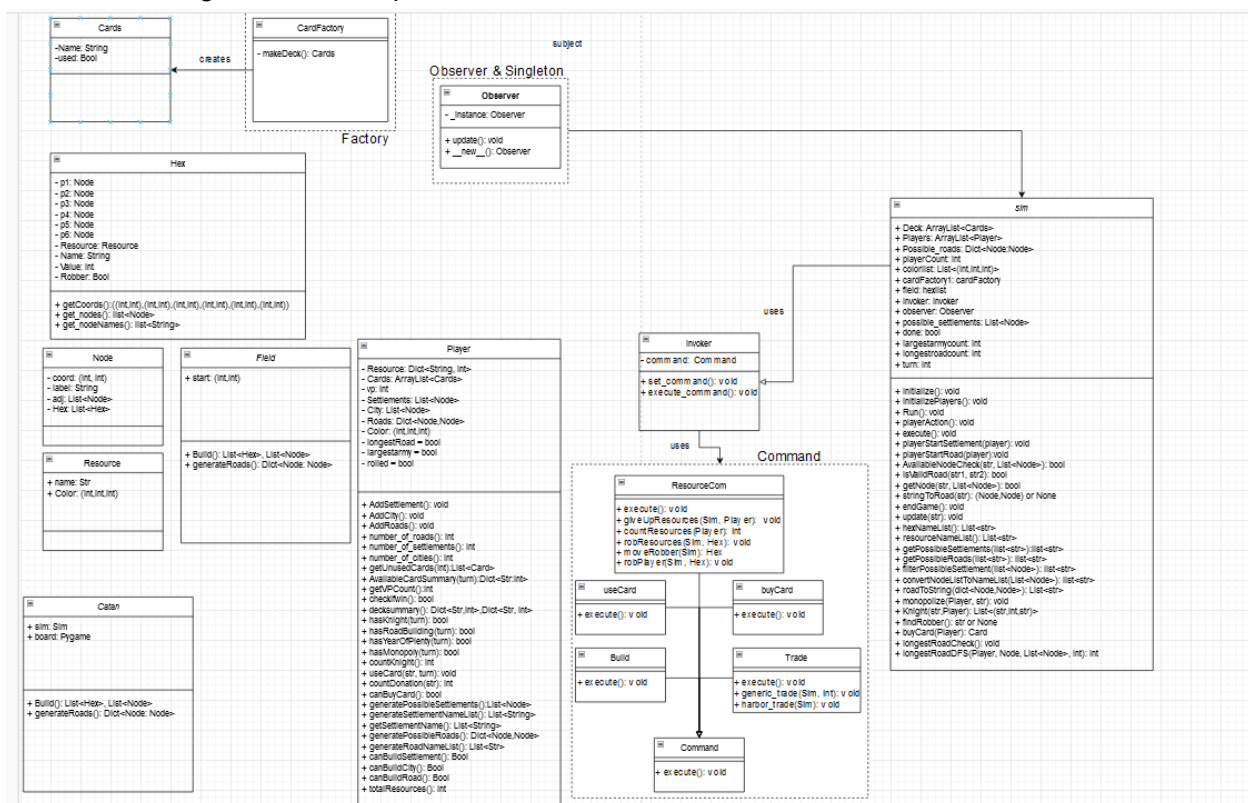


Final State of System Summary:

We have a fully working command-line Settlers of Catan game with a working display of the board at the start of the game. We implemented randomization of the board, along with all actions that exist in Settlers of Catan, including resource, build, and trade phases, along with the buying and usage of development cards. We also implemented the Largest Army and Longest Road statuses. We were not able to update the pygame display as the game progressed due to our inability to handle pygame events concurrently with our game. From project 5/6 to project 7, we added a Catan class to handle basic initialization of our simulation. We also added buyCard, useCard, and resourceCom as commands. We implemented logical calculations for Largest Army and Longest Road as well.

Final Class Diagram and Comparison Statement:



From project 5/6 to project 7, we added a Catan class to handle basic initialization of our simulation. We also added buyCard, useCard, and resourceCom as commands. We implemented logical calculations for Largest Army and Longest Road as well. We also had to add getters and setters as needed.

Third-party Code vs Original Code Statement:

Source link:	Description:	Where did we use it:
https://www.geeksforgeeks.org/python-on-pil-image-open-method/	opening an image	Showing image of Catan board in Catan.py
https://stackoverflow.com/questions/6087484/how-to-capture-pygame-screen	saving pygame display as image	Generating image of Catan board in Catan.py
https://stackoverflow.com/questions/6996603/how-do-i-delete-a-file-or-folder-in-python	delete file	Deleting image file of Catan board in Catan.py
https://stackoverflow.com/questions/20550743/pygame-how-to-write-text-onto-a-specific-location-also-how-to-use-coordinate	adding text to specific location on pygame display	Labeling Catan board hexes, nodes, and harbors in Catan.py
https://www.pythonpool.com/python-check-if-string-is-integer/	checking if string input is made up of numeric characters	Checking user input in Trade.py and Resource.py
__new__ vs __init__ in Python: https://www.youtube.com/watch?v=-zsV0_QrTW	making a singleton	Making our observer a singleton in Observer.py

- Anything not included in this table is original code.

Statement on OOAD process:

- Updating the pygame window proved to be difficult while playing the game due to the nature of having to handle pygame events. (negative)
- Graph theory implementation for the game board made it easier to visualize and handle user behaviors (positive)
- User input validation allowed user to play the game without causing error (positive)