CIS/IM 452/552 – Assignment #7 – **Due Friday 3/6 before 11:55pm**
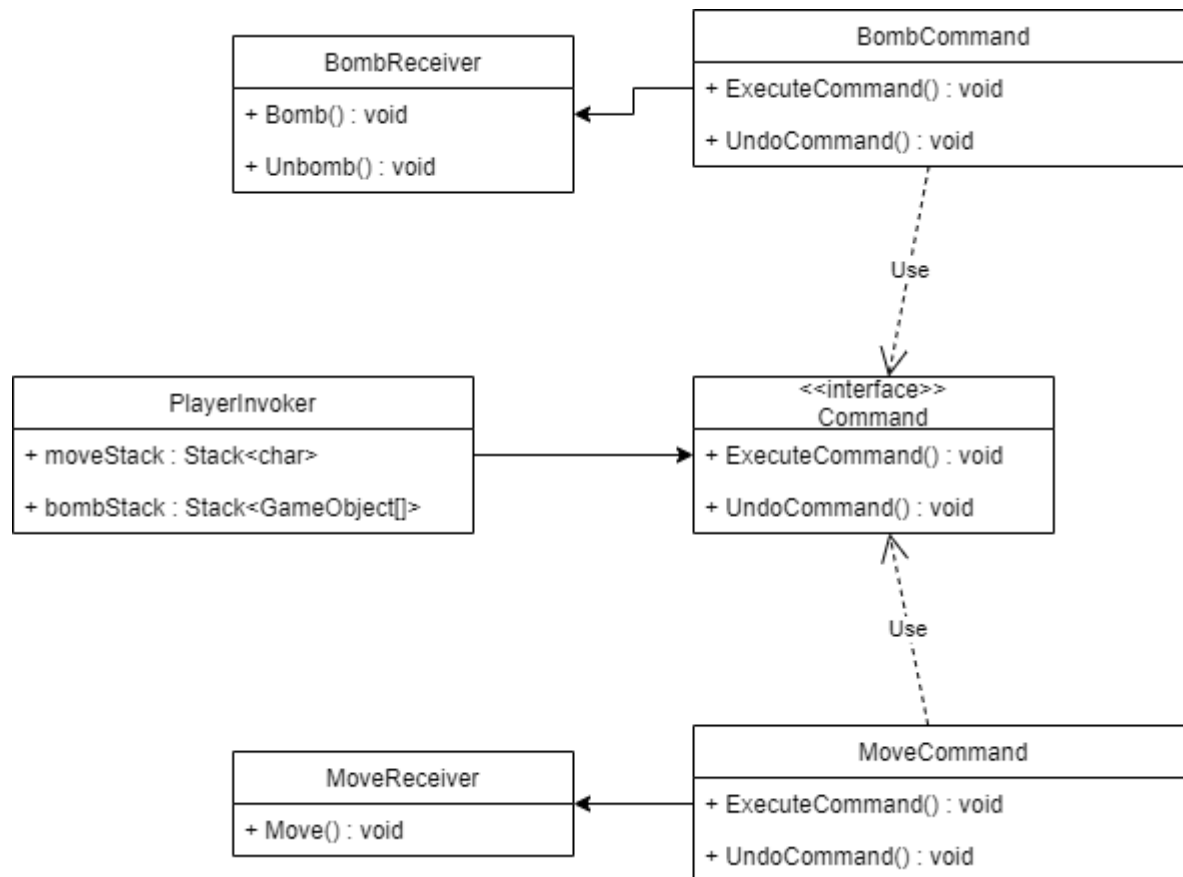
Objective: Create a mini-game implementing the Command Design Pattern.

Deliverable 1: A UML diagram of the object-oriented design in your mini-game that implements the Command Design Pattern, including all variables and methods that are part of implementing the design pattern, pasted in from whatever program you used to create it (draw.io is recommended) to the single .docx or .pdf document you will submit.

1. What does the player do in the game that determines which Concrete Command is executed on a receiver?

The player's movement and bombs are using receivers.

2. What determines which Receiver class receives the command? Does the player choose the Receiver somehow or does the game choose the Receiver? In other words, what sets the Receiver that the Command is executed on?

The receivers are set at the beginning of the game, but the player gets to choose which one to use while playing.

3. What were the benefits of using the Command Pattern to make your mini-game?

Since this was a puzzle game, I could easily reverse the player's actions, which is such a huge quality of life feature that isn't in many puzzle games.

4. Did you find any drawbacks to using the Command Pattern? If so, what were they?

Man, the Command Pattern is confusing. I'm still not totally sure that I implemented it correctly. I understand a lot of these patterns have been using a bit more complexity in order to make things more organized, but in all honesty, I think the Command Pattern uses more complexity without making anything more efficient.

5. What is the player's goal in your mini-game and what makes it challenging?

The game is like Sokoban. The goal is to push boxes into their respective places. The tricky part is maneuvering the boxes and your character correctly.

6. How does the game communicate its goal(s) to the player?

The iconography says "PUT THE BLUE BOX HERE" pretty clearly.

7. How can the player fail at the game and how does the game detect it?

The player fails by giving up. Since this is a puzzle game, I wanted to make the player think, so the only way for them to lose it to press the "Give Up" button, which quits the game.

8. How does the game give players feedback about how well they are doing?

Each time the player completes a level, the new level will instantly appear. At the end, the final level is a celebration, saying "WIN".