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1. The control flow for the interaction of a player avatar and a bank square happens solely in the doSomething() function of the bankSquare class. My StudentWorld class returns a pointer to either Peach or Yoshi so I can compare the co-location of the player avatar and bank square. Afterwards, I have checks using playerAvatar class functions to check whether the player avatar spawned on that square (hasRolledYet()) and whatState() to check if the player avatar is waiting to roll or walking because a bank square has different functionality depending on the player avatar’s state. If the player avatar passes over (walking), the player avatar’s coins are checked using getCoins(). There are two cases in which the player avatar has more than 5 or less than 5 coins. In both cases, the correct amount of coins is added via StudentWorld’s addToBank() function and the player avatar’s decrementCoinss() function subtracts these coins. If the player avatar lands on (waiting to roll) the bank square, the player avatar gets the amount in the bank, which is an int of StudentWorld. StudentWorld uses its give\_\_\_Coins() function which chooses either Peach or Yoshi and takes in the bank amount as an int parameter. Then the bank balance is set to 0 via StudentWorld’s setBank() which takes in an int parameter as the amount to set the bank balance to. After both cases are handled respectively, we setActivePeach(0) which is a bankSquare function to handle the “new player” aspect of square interaction.
2. I implemented all the functionality as per the spec. There are no known bugs. I have also tested there are no memory/object leaks.
3. One assumption I made was in handling interaction of the vortex if it overlapped with multiple Baddies on the same square. My implementation chooses the Baddie that comes first in the vector of actors in the game as the Baddie that gets impacted. The vortex only interacts with that Baddie, then gets destroyed so the other Baddie is unaffected. Besides that assumption, I did not make any other assumptions.