

Assignment 6 Documentation

Design Pattern 1:

This design pattern represents a basic builder pattern in that it has the core collections that will be used for the project (Apiary, Beehive, Rooms).

The requirements fulfilled by this pattern are as follows:

- Requirement 1 – An apiary can have many beehives in them.
- Requirement 3 – A beehive should be comprised of a network of rooms and a beehive can't contain another beehive.
- Requirement 4 – A beehive should have rooms for spawning more bees.

Design Pattern 2:

This design pattern demonstrates the system of bees being able to battle each other which results in one of them being defeated. When a bee is defeated, it is removed from the hive (as evidenced in Main). There are different levels of fighters which offer different health pools.

The requirements fulfilled by this pattern are as follows:

- Requirement 5 – Bees should be able to battle other bees. When they do, the loser of the battle should die, and the winner should gain the attributes of the loser.

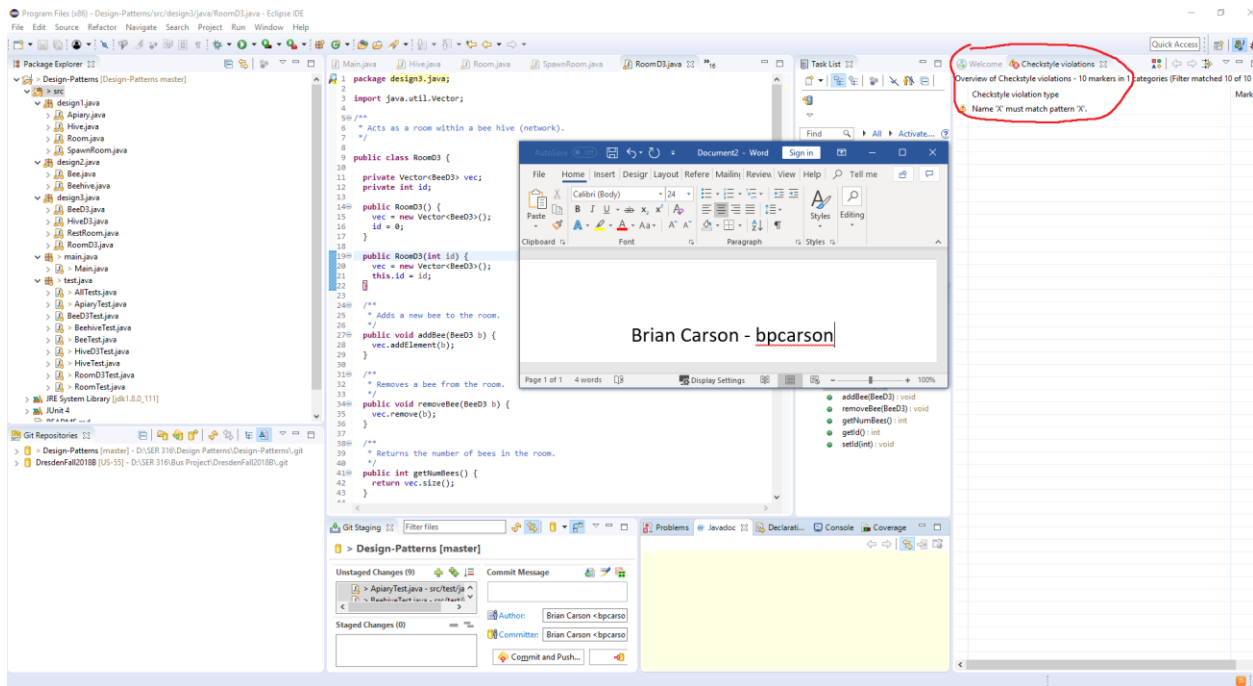
Design Pattern 3:

This design pattern demonstrates the system of bees in beehives which only contain one type of bee, and these types denote proficiencies that each bee will have over the other types. Resting Rooms are also added into this design pattern.

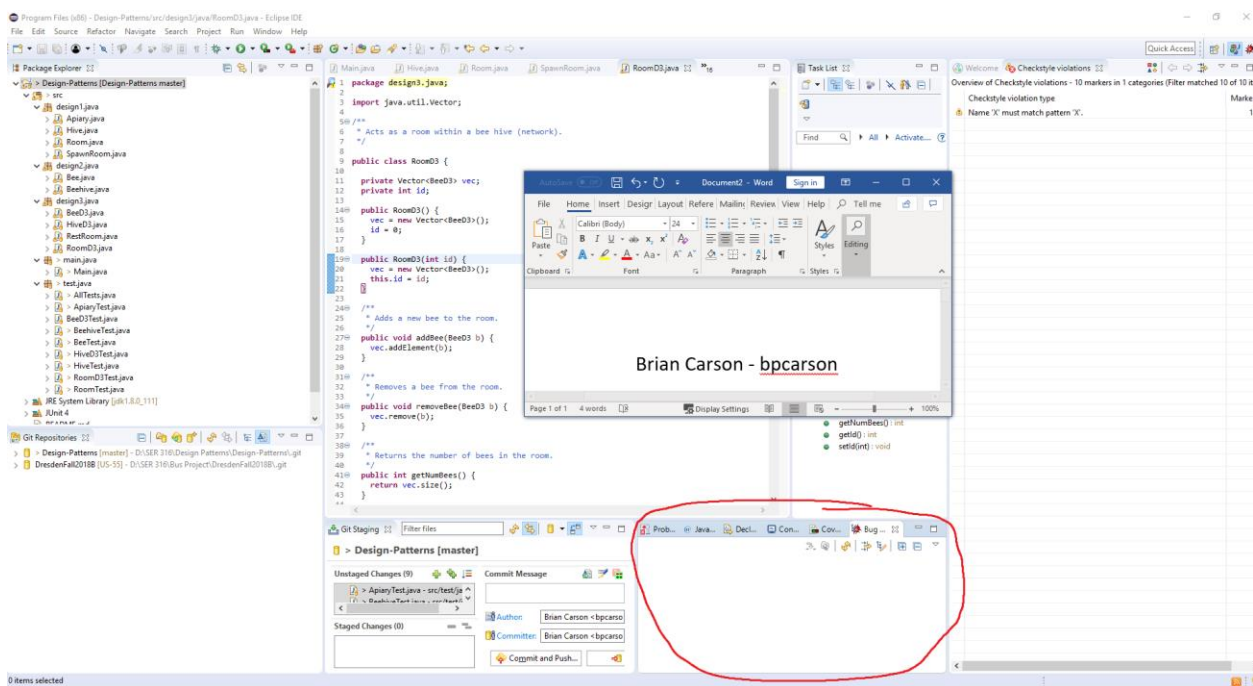
The requirement fulfilled by this pattern are as follows:

- Requirement 3 - A beehive should be comprised of a network of rooms and a beehive can't contain another beehive.
- Requirement 6 – A beehive should only have one species of bees. Each species should have some kind of bonus to them.

Checkstyle:



SpotBugs:



Code Coverage Report:

The screenshot shows an IDE with the following components:

- Package Explorer:** Lists the project structure, including `src`, `design1.java`, `design2.java`, `design3.java`, `RoomD3.java`, `RoomD3Test.java`, `RoomD3Test2.java`, `RoomD3Test3.java`, `RoomD3Test4.java`, `RoomD3Test5.java`, `RoomD3Test6.java`, `RoomD3Test7.java`, `RoomD3Test8.java`, `RoomD3Test9.java`, `RoomD3Test10.java`, `RoomD3Test11.java`, `RoomD3Test12.java`, `RoomD3Test13.java`, `RoomD3Test14.java`, `RoomD3Test15.java`, `RoomD3Test16.java`, `RoomD3Test17.java`, `RoomD3Test18.java`, `RoomD3Test19.java`, `RoomD3Test20.java`, `RoomD3Test21.java`, `RoomD3Test22.java`, `RoomD3Test23.java`, `RoomD3Test24.java`, `RoomD3Test25.java`, `RoomD3Test26.java`, `RoomD3Test27.java`, `RoomD3Test28.java`, `RoomD3Test29.java`, `RoomD3Test30.java`, `RoomD3Test31.java`, `RoomD3Test32.java`, `RoomD3Test33.java`, `RoomD3Test34.java`, `RoomD3Test35.java`, `RoomD3Test36.java`, `RoomD3Test37.java`, `RoomD3Test38.java`, `RoomD3Test39.java`, `RoomD3Test40.java`, `RoomD3Test41.java`, `RoomD3Test42.java`, `RoomD3Test43.java`, `RoomD3Test44.java`, `RoomD3Test45.java`, `RoomD3Test46.java`, `RoomD3Test47.java`, `RoomD3Test48.java`, `RoomD3Test49.java`, `RoomD3Test50.java`, `RoomD3Test51.java`, `RoomD3Test52.java`, `RoomD3Test53.java`, `RoomD3Test54.java`, `RoomD3Test55.java`, `RoomD3Test56.java`, `RoomD3Test57.java`, `RoomD3Test58.java`, `RoomD3Test59.java`, `RoomD3Test60.java`, `RoomD3Test61.java`, `RoomD3Test62.java`, `RoomD3Test63.java`, `RoomD3Test64.java`, `RoomD3Test65.java`, `RoomD3Test66.java`, `RoomD3Test67.java`, `RoomD3Test68.java`, `RoomD3Test69.java`, `RoomD3Test70.java`, `RoomD3Test71.java`, `RoomD3Test72.java`, `RoomD3Test73.java`, `RoomD3Test74.java`, `RoomD3Test75.java`, `RoomD3Test76.java`, `RoomD3Test77.java`, `RoomD3Test78.java`, `RoomD3Test79.java`, `RoomD3Test80.java`, `RoomD3Test81.java`, `RoomD3Test82.java`, `RoomD3Test83.java`, `RoomD3Test84.java`, `RoomD3Test85.java`, `RoomD3Test86.java`, `RoomD3Test87.java`, `RoomD3Test88.java`, `RoomD3Test89.java`, `RoomD3Test90.java`, `RoomD3Test91.java`, `RoomD3Test92.java`, `RoomD3Test93.java`, `RoomD3Test94.java`, `RoomD3Test95.java`, `RoomD3Test96.java`, `RoomD3Test97.java`, `RoomD3Test98.java`, `RoomD3Test99.java`, `RoomD3Test100.java`.
- Code Editor:** Displays the `RoomD3.java` file. The code includes a package declaration, imports, and a class definition with methods for adding and removing bees from a room.
- Word Document:** A document titled "Document2 - Word" is open, showing the text "Brian Carson - bpcarson".
- Coverage Report:** A table titled "AllTests (Nov 26, 2018 7:59:28 PM)" shows the coverage for various test classes. The table is circled in red.

Element	Coverage	Covered Ins
src	59.5 %	
RoomD3Test100.java	100.0 %	
RoomD3Test99.java	100.0 %	
RoomD3Test98.java	100.0 %	
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