CMSC203 Assignment 4 Implementation (Documentation)

Class: CMSC203 CRN
Program: Assignment #4
Instructor:
Summary of Description: (Give a brief description for each Program)
Due Date: MM/DD/YYYY
Integrity Pledge: I pledge that I have completed the programming assignment independently.
I have not copied the code from a student or any source.

Part 1: UML Class Diagram for all classes (see Handouts)

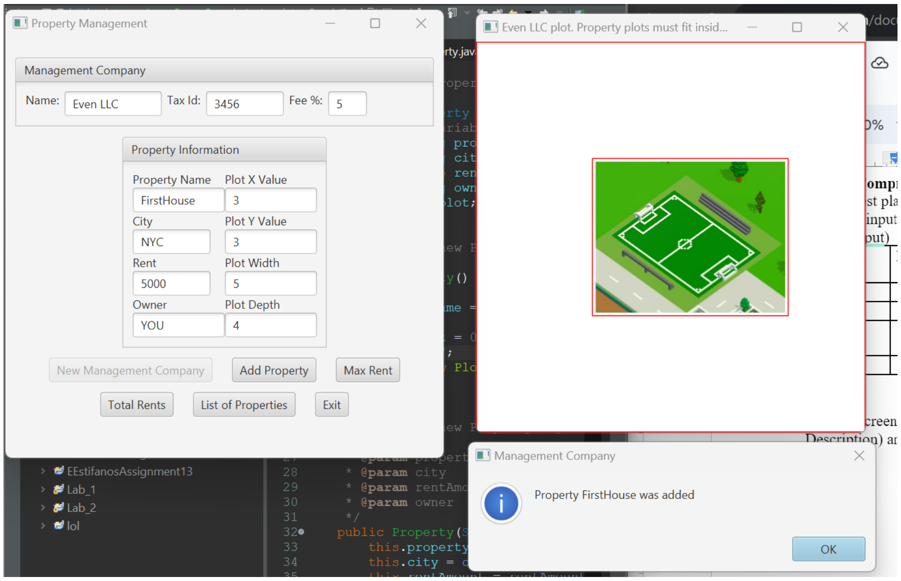
Part 2: Comprehensive Test Plan

A good test plan should be comprehensive. This means you should have a few test cases that test when the input is in and out of range, division by 0, incorrect Data type, etc. (Provide valid and invalid input)

Cases	Input	Expected Output	Actual Output	Did Test Pass?
Case 1				
Case 2				
Case 3				
Case 4				

Part 3: Screen snapshots of the GUI with several properties (like screenshots in Assignment Description) and related to the Test Plan:

Case 1



Property Management

Management Company

Name: Even LLC Tax Id: 3456 Fee %: 5

Property Information

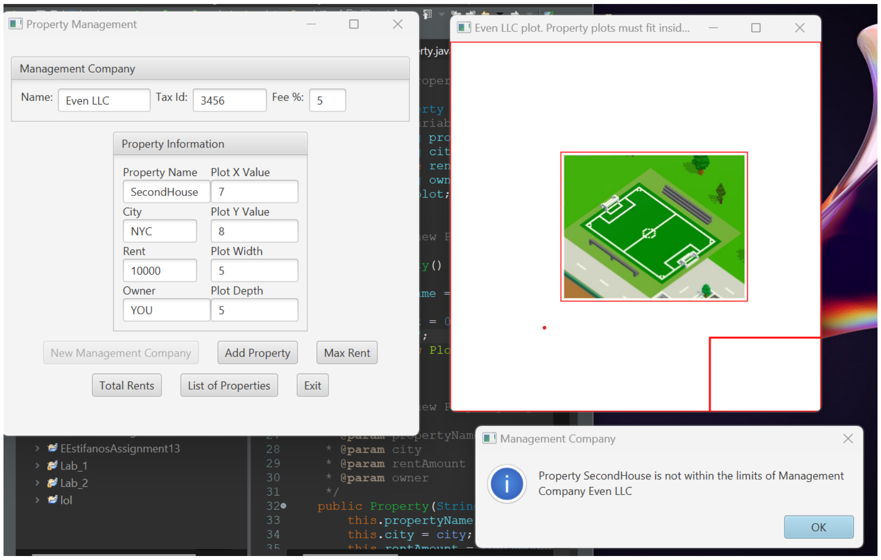
Property Name	Plot X Value
FirstHouse	3
City	Plot Y Value
NYC	3
Rent	Plot Width
5000	5
Owner	Plot Depth
YOU	4

Even LLC plot. Property plots must fit insid...

Management Company

Property FirstHouse was added

Case 2



Property Management

Management Company

Name: Even LLC Tax Id: 3456 Fee %: 5

Property Information

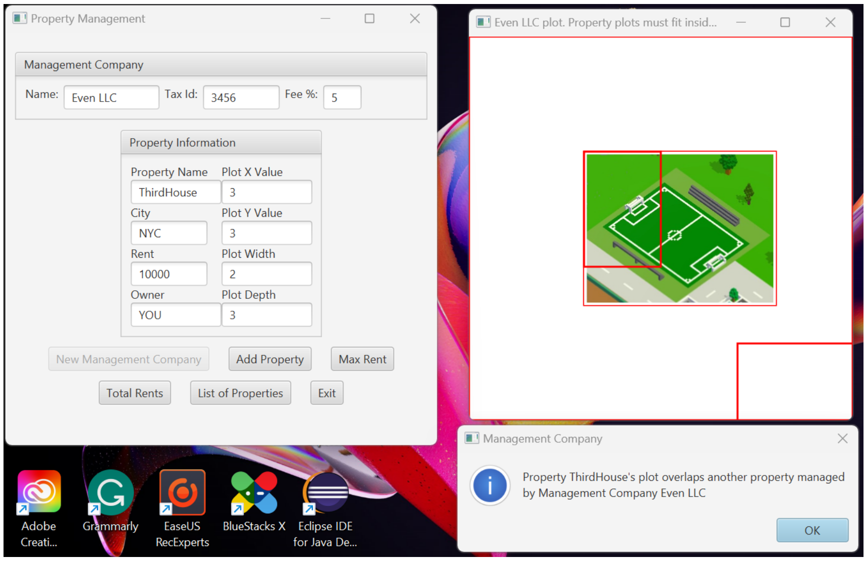
Property Name	Plot X Value
SecondHouse	7
City	Plot Y Value
NYC	8
Rent	Plot Width
10000	5
Owner	Plot Depth
YOU	5

Even LLC plot. Property plots must fit insid...

Management Company

Property SecondHouse is not within the limits of Management Company Even LLC

Case 3



Property Management

Management Company

Name: Even LLC Tax Id: 3456 Fee %: 5

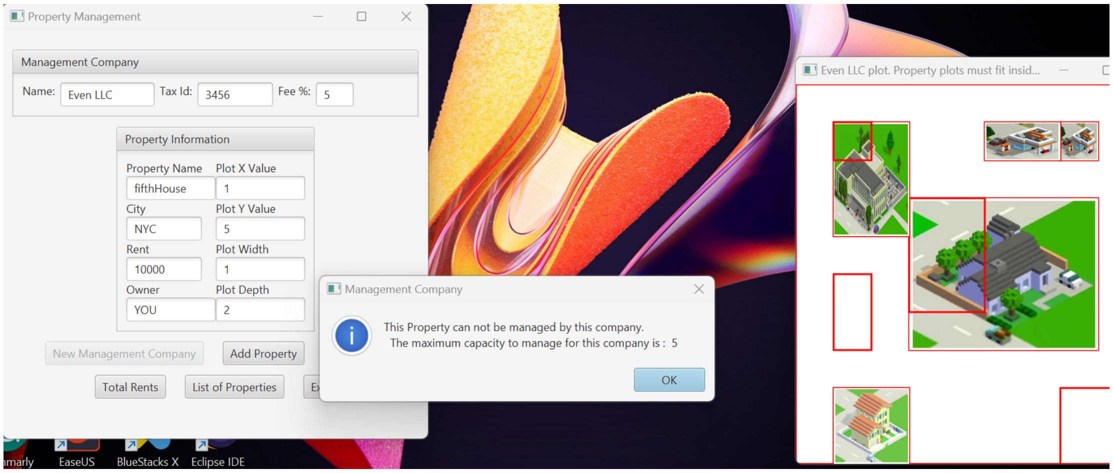
Property Information

Property Name: ThirdHouse
Plot X Value: 3
City: NYC
Plot Y Value: 3
Rent: 10000
Plot Width: 2
Owner: YOU
Plot Depth: 3

Management Company

Property ThirdHouse's plot overlaps another property managed by Management Company Even LLC

Case 4



Property Management

Management Company

Name: Even LLC Tax Id: 3456 Fee %: 5

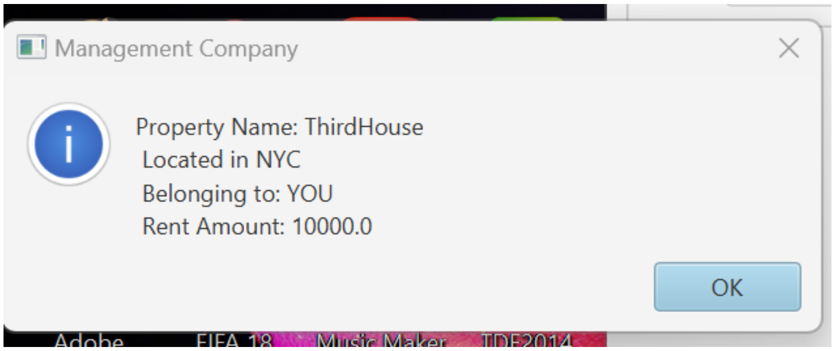
Property Information

Property Name: fifthHouse
Plot X Value: 1
City: NYC
Plot Y Value: 5
Rent: 10000
Plot Width: 1
Owner: YOU
Plot Depth: 2

Management Company

This Property can not be managed by this company.
The maximum capacity to manage for this company is : 5

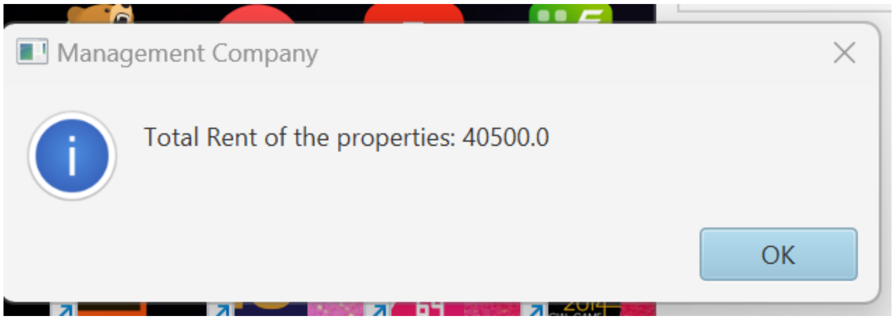
MAX RENT:



Management Company

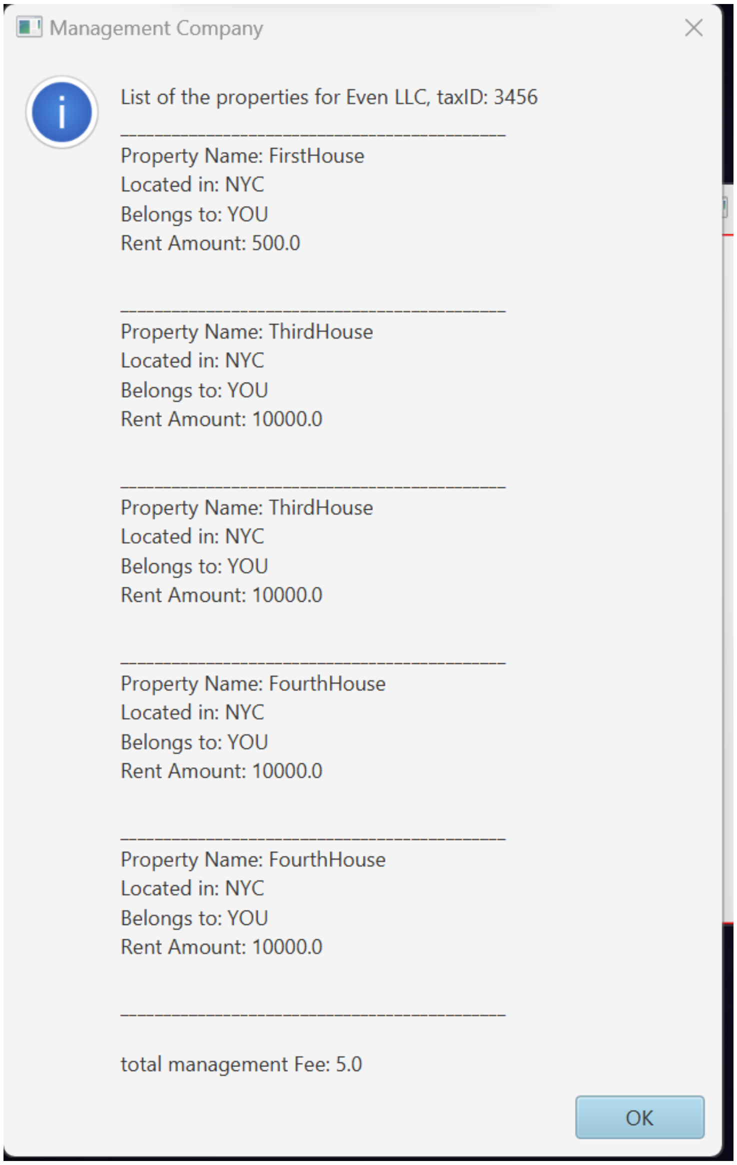
Property Name: ThirdHouse
Located in NYC
Belonging to: YOU
Rent Amount: 10000.0

TotalRent:



```
Total Rent of the properties: 40500.0
```

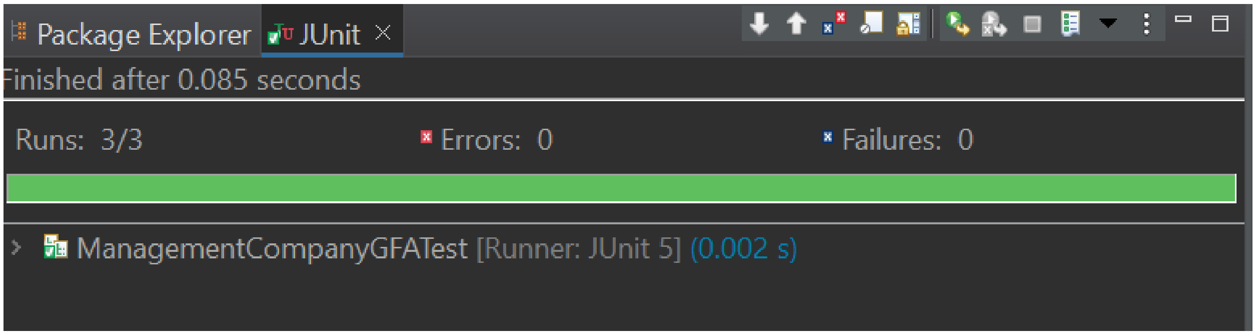
List of properties



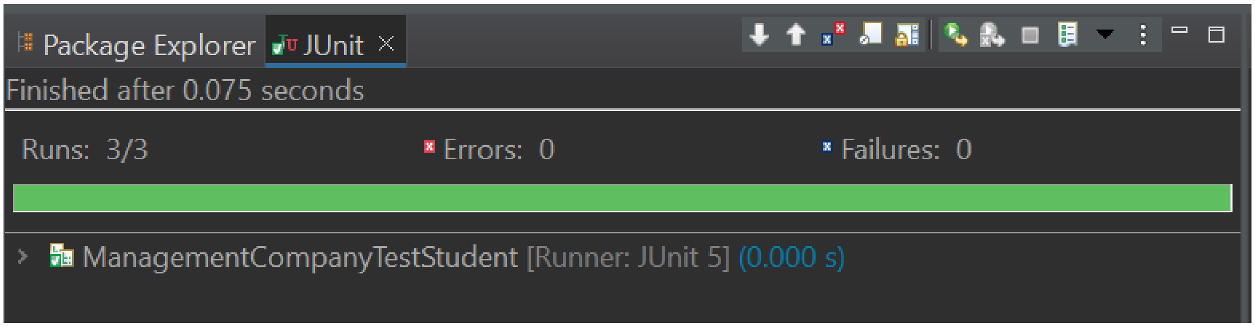
```
List of the properties for Even LLC, taxID: 3456
_______________________________________________
Property Name: FirstHouse
Located in: NYC
Belongs to: YOU
Rent Amount: 500.0

_______________________________________________
Property Name: ThirdHouse
Located in: NYC
Belongs to: YOU
Rent Amount: 10000.0

_______________________________________________
Property Name: ThirdHouse
Located in: NYC
Belongs to: YOU
Rent Amount: 10000.0

_______________________________________________
Property Name: FourthHouse
Located in: NYC
Belongs to: YOU
Rent Amount: 10000.0

_______________________________________________
Property Name: FourthHouse
Located in: NYC
Belongs to: YOU
Rent Amount: 10000.0

_______________________________________________

total management Fee: 5.0
```

Part 4: Screen snapshots of Junit test with extended all Junit Methods results.

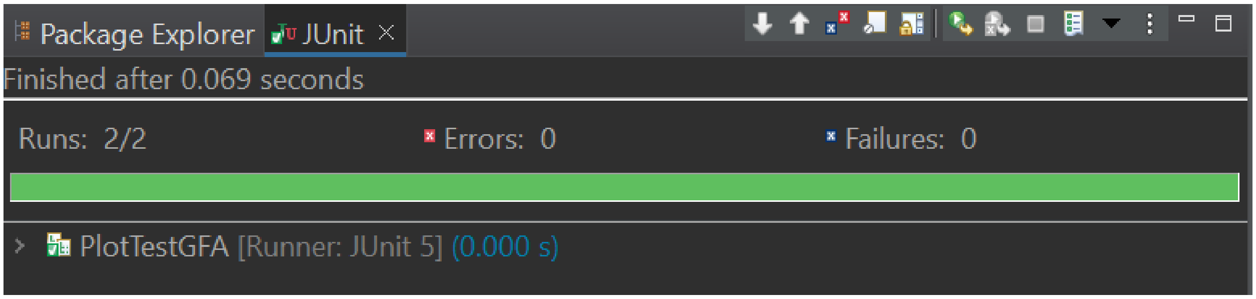
(all 6 junit tests in total , testing three classes. First is the gfa provided while the latter is the one student created)



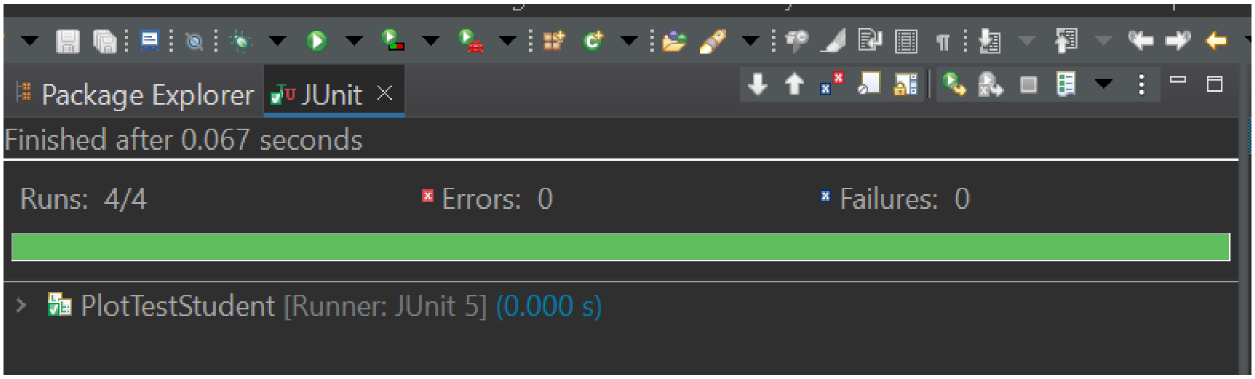
```
Finished after 0.085 seconds
Runs:  3/3          Errors:  0          Failures:  0
ManagementCompanyGFATest [Runner: JUnit 5] (0.002 s)
```



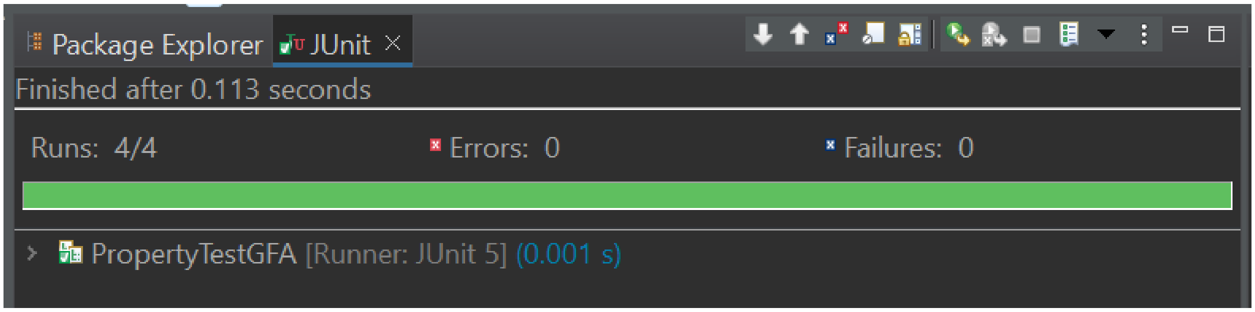
```
Finished after 0.075 seconds
Runs:  3/3          Errors:  0          Failures:  0
ManagementCompanyTestStudent [Runner: JUnit 5] (0.000 s)
```



```
Finished after 0.069 seconds
Runs:  2/2          Errors:  0          Failures:  0
PlotTestGFA [Runner: JUnit 5] (0.000 s)
```



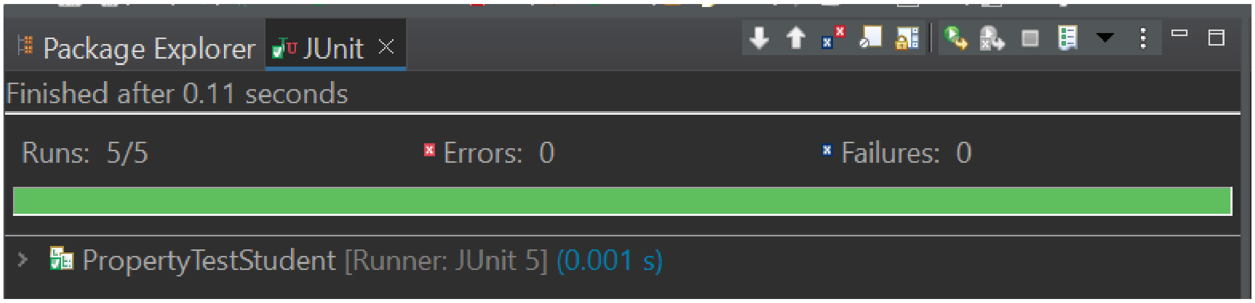
```
Finished after 0.067 seconds
Runs:  4/4          Errors:  0          Failures:  0
PlotTestStudent [Runner: JUnit 5] (0.000 s)
```



Finished after 0.113 seconds

Runs: 4/4 Errors: 0 Failures: 0

PropertyTestGFA [Runner: JUnit 5] (0.001 s)



Finished after 0.11 seconds

Runs: 5/5 Errors: 0 Failures: 0

PropertyTestStudent [Runner: JUnit 5] (0.001 s)

Part 5: Screen snapshots of src folder files under folder Assignment 4 in your GitHub repository.

Part 6: Lessons Learned. Provide answers to the questions listed above**:**

Write about your Learning Experience, highlighting your lessons learned and learning experience from working on this project.

What have you learned?
Aggregation - the whole concept that two or more classes can have relationship, where an instance of one class could be a field in another class.

What did you struggle with?
The whole concept of encompassing and overlapping was very confusing to code, and took much time to code this concept.

What would you do differently on your next project?
Probably not rush it, and do it slowly time by time to avoid burnout and exhaustion

What parts of this assignment were you successful with, and what parts (if any) were you not successful with?
Coding was easy, design was also surprisingly easy as no pseudocode and flowcharts, I enjoy UML more because it is more direct, and less confusing. It is difficult to code the concepts and logics but that is the whole point of challenges, I enjoyed it.

Provide any additional resources/links/videos you used to while working on this assignment/project.