## **Bug Report**

Bug Name:	Error in trying to iterate over a null ArrayList.
Description:	The lease class does not initialize its arraylists in the constructor. So, if a method tries to iterate over one of the lease's uninitialized arraylists, it gives an error.
Test Case:	All LeaseTest tests  DataWriterTest: testWritingFiveLeases()
Location of error:	Lease class, constructor

Bug Name:	Error in trying to access variables in a null lease
Description:	There is a method in Property to get the ID of the lease, but if the lease happens to be null, it will throw an exception because it is trying to access the instance variables of something that is null.
Test Case:	PropertyTest: all tests  DataLoaderTest: testGetPropertySizeZero(), testGetPropertySize()  DataWriterTest: testWritingOneProperty()
Location of error:	Property class, getLeaseID() method

Bug Name:	Creating duplicate or empty property manager
Description:	In the first test, a duplicate property manager is created, which should not be able to happen. In the other test, an empty property manager (null values) is created, which should not happen either.

Test Case:	PropertyManagerTest: testCreateDuplicatePropertyManager(), testCreateEmptyPropertyManager()
Location of error:	PropertyManagerList class, add method

Bug Name:	Creating empty or null review
Description:	In the test, both an empty review and a null review were able to be created.
Test Case:	DataWriterTest: testWritingEmptyReview(), testWritingNullReview()
Location of error:	ReviewList class, add method

Bug Name:	Creating objects with an ID that already exists in the object's list
Description:	When testing, we are adding certain objects to lists with IDs that already exist in that list. So, the IDs are no longer corresponding with the object's location in that list. The add methods should automatically come up with an id instead of passing it through a constructor.
Test Case:	Non-specific
Location of error:	All List classes

## **Coverage Report**

Coverage <sup>≅</sup>					5 @ ▼   <b>X ½ ↑ % ▼</b>   @ <b>\$</b> \$
ement	Coverage	Covered Instructions	Missed Instructions	tal Instructions	
HousingSystemProject     HousingSyste	39.1 %	2,908	4,521	7,429	
y ≝src	39.1 %				
▼ ## (default package)	39.1 %	2,908		7,429	
> J HousingUI.java	0.0 %		1,649	1,649	
> J HousingApplication.jav					
> J Property.java	24.9 %			349	
> J DataWriter.java	68.4 %	496			
> J Account.java	34.7 %				
> J Lease.java	23.8 %				
> J DataLoader.java	73.1 %				
> J PropertyTest.java	34.6 %				
> J LeaseTest.java	23.6 %				
> J LeaseList.java	11.9 %				
→ J DataWriterTest.java	86.9 %			884	
> J PropertyList.java	17.9 %				
> J PropertyManagerList.ja	33.9 %				
> J StudentList.java	34.2 %				
> J ReviewList.java	52.8 %				
> J Review.java	42.9 %				
> J Student.java	55.1 %				
> J PropertyManager.java	52.6 %				
> J DataLoaderTest.java	73.4 %				
→ J SortByPrice.java	0.0 %				
> J SortByReviews.java	0.0 %				
> J PropertyManagerTest.j.	95.9 %				
> J ReviewTest.java	95.9 %				
> J AccountTest.java	0.0 %				
> J DataConstants.java	0.0 %				
> J AccountType.java	100.0 %				
> J ReviewType.java	100.0 %				
> J StudentTest.java	100.0 %				