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Assumptions

* The file being read in is going to always be named input.txt
* The file being read in will be in the same directory as the script and jar file
* Addresses need to be normalized to some extents so changing them and displaying them with normalized addresses is ok.
* Houses should still be displayed with occupancy numbers even if no occupant will be listed after it. (All occupants are 18 or under)

How did I test?

Testing was mainly done through manual testing and verification since results are to be output in a file or on the console in a specific format. This means I would run the program look at the output and compare it to expected results. For example, in the input.txt I know Dave, Alice, Ian, and Jane should be living together and that only Dave and Alice should display under the household since Ian and Jane are 18. I did manual testing and verification then changed software until it displayed houses and their occupants properly.

I also did some unit testing using junit just to verify that some of the important intermediate functions properly process data and information regarding the people from input.txt. These tests would simply verify the state of the information, against the expected state of the information and they would be considered a pass if they matched.

If I had more Time?

If I had more time, there are a couple of things I might do. The first is I would use Mockito and do more extensive testing of the classes used in the script to manage the data since this would help me to test units of code in true isolation and allow for more control over the tests. It would allow me to observe classes much better in tests to better verify behavior.

Also, if I had more time, I would probably automate the process of manually verifying that the output looks correct. This is because manual verification can be more error prone than just automated verification.

Finally, I might have wanted to implement some way to do different queries for the script even though this was out of scope for this exercise. It may be useful to extend this script since we are already have the logic for reading in the people, organizing them into houses, and finally normalizing addresses.