The following program takes in the following input:

"Dave","Smith","123 main st.","seattle","wa","43"
"Alice","Smith","123 Main St.","Seattle","WA","45"
"Bob","Williams","234 2nd Ave.","Tacoma","WA","26"
"Carol","Johnson","234 2nd Ave","Seattle","WA","67"
"Eve","Smith","234 2nd Ave.","Tacoma","WA","25"
"Frank","Jones","234 2nd Ave.","Tacoma","FL","23"
"George","Brown","345 3rd Blvd., Apt. 200","Seattle","WA","18"
"Helen","Brown","345 3rd Blvd. Apt. 200","Seattle","WA","18"
"Ian","Smith","123 main st ","Seattle","Wa","18"
"Jane","Smith","123 Main St.","Seattle","WA","13"

When putting this information into the console you may need to use ctrl D so that the scanner knows that the input is finished.

Description on Approach

When going about this exercise the first thing I did was think about how to break it up into smaller parts. Based on the input I knew I had different people with specific information connected to them. With this in mind I created a Person class with the single purpose of storing a person's data.

The desired output for this program states it wants household and occupant numbers. This led me to then decide I needed a Household class that would store an ArrayList of Person’s who share the same address. It is also in this class where I would sort the occupants in the desired way of the output and track the number of people living there.

With these two things decided what was left was reading the wanted input. I used a simple scanner object to read through each line given. As it reads through the line I had it replace any punctuation that I decided was unneeded over all, in this case a period. Following that it separated the line into an array using “,” as its split. This is how I got the necessary information of first name, last name, street, city, state, and age with each line in order to create the Person object. To wrap this process up I then had it clean up the street address by removing any further punctuation, specifically the comma and cleaning up the white space to make sure it's presentable.

With the Person objects now created and stored into an ArrayList of people I then went through each object creating its home address and with the use of a dictionary I stored the address as a key and the array index it would be at in the houses array as its value. With this information I

could cleaningly go through each person and properly add them to the correct household or create any missing households.

Once the households were fully created and each person in their proper place I then made sure to sort each Household's array to meet the requirements.

The output

The given output this program gives:
123 MAIN ST SEATTLE WA Number of Occupants: 4
"Alice Smith 123 Main St Seattle WA 45"
"Dave Smith 123 main st seattle wa 43"
"Ian Smith 123 main st Seattle Wa 18"
234 2ND AVE TACOMA WA Number of Occupants: 2
"Eve Smith 234 2nd Ave Tacoma WA 25"
"Bob Williams 234 2nd Ave Tacoma WA 26"
234 2ND AVE SEATTLE WA Number of Occupants: 1
"Carol Johnson 234 2nd Ave Seattle WA 67"
234 2ND AVE TACOMA FL Number of Occupants: 1
"Frank Jones 234 2nd Ave Tacoma FL 23"
345 3RD BLVD APT 200 SEATTLE WA Number of Occupants: 2
"George Brown 345 3rd Blvd Apt 200 Seattle WA 18"
"Helen Brown 345 3rd Blvd Apt 200 Seattle WA 18"

This output takes into account the number of people in each household while also only listing people at the age of 18 or over.