Turn in your answers to these questions as well as your code.

1. Throughout this project, we acted as investigators to uphold the system of accountability created by the San Francisco lawmakers: listers must register with the city's planning office and put the business license's number on Airbnb's website, Airbnb must display some effort in validating these policy numbers, and third parties can register a complaint of illegal short-term rentals with the city planning office. We used web-scraping to do the latter using several hours of our personal time.

   Imagine you're a software developer at either the San Francisco Planning Office (SFPO) or Airbnb.com. Describe a different system that verifies that the business license is valid for short term rentals in San Francisco and list at least two arguments you might hear at your organization (either SFPO or Airbnb.com) against adopting your system.

   A different system to employ that verifies the validity of business licenses would be drawing JSON data from an Airbnb api to parse and find valuable data on short term rentals in relation to validity. This would be suitable because it is compatible with string and dictionary parsing. Two arguments against this suggestion would be (1) No, JSON data is hard to visually comprehend within the coding workspace, and (2) There are laws that protect Airbnb from outside parties extracting data from there site, this system could be a potential lawsuit! To which I would respond, we could always use an online JSON viewer that makes the data far easier to visually parse. To the second argument, I'd admit in that way the plan is very flawed. We could follow suite exploring their historical data and parsing this site instead to find invalid listings and report such data.

2. The database we've created through web-scraping is a great data source of information for data scientists in order to answer and explore research questions. Skim through the Housing Insecurity in the US Wikipedia page and describe at least one research question that you could answer or explore using this data if you were a data scientist working with a housing activist organization to fight against housing insecurity.

   I think the data on housing insecurity by state in comparison to the health data could be interesting. A research question could be finding links between observed health problems/crisis in relation to the housing insecurity percentage at that state. Then, I would explore further to see if the state has been neglecting environmental protocols in insecure housed areas as well. We see under shared stories comparable to this in the Flint, Michigan and Jackson, Mississippi water crisis.

3. As discussed in the introduction, the legality of web scraping is still uncertain in the US. Skim through the Legal Issues section of Web Scraping in the US on Wikipedia and this article about the legal issues with the Computer Fraud and Abuse Act , and describe at least one factor you believe is important to consider when discussing the legality of web scraping and why.

   One factor I think is important to consider is the positional power of their web breacher and the intent behind the wrongful web scrape. For example, if someone wanted to complete the aim of this same project for the greater good, but instead found a brilliant way to crack into Airbnb's Api database, if they were to be sued by Airbnb are they truly the wrongful party? The second article says itself that the CFAA makes it a crime to "access a computer without authorization", but doesn't make it clear exactly what that phrase means. Meanwhile, certain powerful names and companies could be leveraging these same methods under protection of loop holes and big name agendas while extracting data from users personalized decisions. It's a subjective crime and I just worry that the guilty parties often go unknown.

4. Scraping public data does not always lead to positive results for society. While web scraping is important for accountability and open access of information, we must also consider issues of privacy as well. Many argue that using someone's personal data without their consent (even if publicly provided) is unethical. Web scraping requires thoughtful intervention, what are two or more guidelines that must we consider when deciding to use or not to use public data?

In another class that I am taking this semester, we often refer to this ethical framework to construct a moral opinion on a product or systems effect on both the individual user and the larger sphered societal lens. I think these guidelines emphasizes a harmonical balance that identifies inanimate stems being leveraged in malicious ways. Throughout recent popular privacy scandals within big companies like Facebook or Amazon, if you compare the cases to the principles behind the of the Justice Lens, Utilitarian Lens, or Common Good Lens, the irresponsible actions taken by programmers become more evident.