1 Progress Made

- (I have been working on scraping all known plug share stations, bear this in mind when I describe results)
- Updated code so it can run in parallel, however this resulted in a 3-day ban (which has now been lifted and I am able to continue running my code) from plugshare on one of my machines and function no longer seems to work, proceed with caution when using
  - Also, changed code so it saves information to individual csv after each iteration and then merge with the following code in Linux (while in code directory):

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```
printf '%s\0' *.csv | awk -v RS='\0' 'NR==FNR{ARGV[ARGC++]=$0; next} !c++ || FNR>1' RS='\0' - RS='\n' >
/home/void/Desktop/sample.csv
```

- Scraped the following information for 17,102 stations:
  - Latitude
  - Longitude
  - Number of Checkins
  - Address (attached to google maps link)
  - Station Information (availability at time of scrape, type of charger, name of network (i.e., ChargePoint), number of stations - this is in one single string, would need to be parsed)
  - Location ID (already known)
- Scraped 75,064 reviews for 2,248 stations, with the following information parsed
  - Url
  - Problem with charger – (i.e., broken hardware, could not activate, blocked by vehicle)
  - kilowatts used when charging
  - connector
  - usernames
  - user's vehicle
  - date when charging
  - comment made by user
- Labeled all location URLs at time of scrape (473,693), but as of 5/12/2025, looks like there are now 474,097 stations
  - Now, you can filter by state, for example consider the following location name:
    - "Barberino Nissan Parts | Wallingford, CT | EV Station"
    - Name states that this is in Connecticut, so you could write a code that filters for CT with ", CT |"

- You can get the full reviews from the embeddable map from Plugshare, but they are anonymized and the map is cumbersome to operate. Link is here for further investigation.
- Next things to do:
  - Running in parallel without IP address getting banned, and moving to Yale's HPC - have tested on HPC but need the libnss library in order for google chrome to run headless
  - Parsing out availability information using tidyverse and adding date of scrape,
  - "J-1772 4 Plugs 6.48 kW 2 Stationscheck_circle3 Availableaccount_circle1 In Useremove_circle0 UnavailableChargePoint Non-networked"
  - filtering out international charging stations completely and creating a comprehensive list for each state