Data Analysis Challenge:

We've attached a JSON dataset of client logins from an Uber city on the eastern seaboard of the United Statues. Using this, please do the following:

1. Using your analysis tool of choice, please generate a graph showing an hourly breakdown of client login behavior.

2. Fit a model that best describes this data. Provide reasoning as to why you choose this model vs others (basically we want to know the breadth of your knowledge and also if you know fundamental assumptions behind the model you choose).

3. Can the above model you used to predict/forecast the future? If yes, then do so for a short-time frame (say next 2 weeks). What is the accuracy of your predictions? What changes would you do if we asked you to predict over longer horizon (say 15 weeks)?

You may use your analysis tool of choice, but please include a short description of your method and source code [Internally, we use R and Python]. In the past, candidates have submitted the answers to above questions in form of papers (2-4 pages) or power point presentations. It's your choice! But source code is must.

4. **Extra Credit:** Repeat this analysis by graphing client logins by week and/or by hour of day. What do you notice about client behavior?