Enhance urban mobility by harnessing the power of IoT to make cities smarter and more livable. The system will utilize CNNs to classify traffic conditions and LSTMs for forecasting pickup trends.

Model 1: Deep Learning – Classify the traffic conditions (e.g., light, moderate, heavy) in different zones of NYC using CNNs.
Model 2: Time Series Prediction – Forecast the future demand for Uber pickups across NYC using LSTM.

1. What is the source of your dataset?
    i. NYC Taxi & Limousine Commission (TLC) - https://github.com/fivethirtyeight/uber-tlc-foil-response
2. How was the data collected?
    i. It was obtained by FiveThirtyEight through a Freedom of Information Law request on July 20, 2015.
3. How many observations are in the dataset?
    i. 4.5 million Uber pickups from April to September 2014, 14.3 million Uber pickups from January to June 2015, and trip-level data for 10 other for-hire vehicle companies.
4. What variables are in the dataset?
    i. For the 2014 data: Date/Time, Latitude, Longitude, and TLC base company code.
    ii. For the 2015 data: Dispatching base number, Pickup date, Affiliated base number, and Location ID.
5. What is your IoT application/system? Who will use it?
    i. An IoT solution designed to optimize urban transportation. It's aimed at traffic management authorities and ride-sharing companies. The system uses historical Uber pickup data to manage and predict urban mobility patterns.
6. What industry does your IoT application/system fit into? (smart home, healthcare, smart city, personal devices, industrial IoT)
    i. Smart city