**Safeguarding the drunk New York City**

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1. **Introduction**
   1. **Background**

Being among the top 15 largest cities of the world and having around 9 million population, New York city is one of the major cities of United States of America. According to reports that came out back in February 2018, around 91% of the New Yorkers drink alcohol. But, the more shocking fact is 78% of the New Yorkers does barhopping, takes drugs and stayed up until sunrise or had a hangover even during weeknights. The percentage of crimes because of the usage of alcohol or drugs is not just significant but alarmingly dangerous. As such, NYPD must be very vigilant during their evenings throughout the night to next morning to avoid/reduce crimes that may arise in this regard.

* 1. **Problem**

To safeguard New York, NYPD can do continuous patrolling as well as setting up temporary, mobile outposts where NYPD mobile police units/cars can be deployed at nights. There are about 600 pubs, bars and nightclubs spread across the different boroughs of New York. So, these police outposts must be placed in such a way that, they cover the entire pubs, bars and nightclubs. This project aims at finding the location of these outposts. The idea behind the project is that the entire pubs, bars and nightclubs would be bucketed into different groups, and for each group, a location, which is equidistant from all the pubs/bars/nightclubs of that group is chosen as the location for outpost for that location. Based on the opening of new bars, pubs, nightclubs or closing of an existing one, the location of these outposts must be adjusted.

* 1. **Interest**

The project, obviously can help the NYPD to better place their mobile units to safeguard the city. This scope of the project can be extended on to various levels, like if combined with crime-location data, we will be able to find locations for outposts which will be more productive, or can be used to find the location to place docking stations for on-demand mobile app-based bicycle rentals, or can be used for mobile app-based cab services like Uber etc.