**Project Uber (PU ) shall produce a multiplier number in a range from 1.0 to 10.0 with resolution in hundredths.**

There are various events in New York City(NYC) that require transportation by vehicle. This project will only consider For Hire Vehicles (FHV). FHV will consists of taxi cabs, Lyft, and Uber.

An event is described as a public assembly for the purpose of work, celebration, sports, concerts social meeting, etc. Events can be classified on the basis of their size, type and context. Events have a start time and a duration.

Data:

String) Name: The name of the Event

(String) Category: [Sports, Concerts, Work, Plays, Movies, Other]

(String) Subcategory: The name of the subcategory, example baseball is a subcategory of sports

Date: M-D-Y

(Time) Start-Time: Start time of event

(Float) Duration: The duration in 1/2 increments

(Integer) Attendance: Estimate of the number of attendees of event

The team assumption:

The Multiplier will have a non-linear relation to the different types (Category) of events.

The use of a supervised neural net with the features listed above and the label will be the sum of all pick-ups FHV for that time period (we still need to define time period as a group).

The network will be trained with all FHV data for December 2017 only.

Once the network is trained, any user entering a future date/time and the system has knowledge of scheduled events, the system will produce a multiplier.