Executive Summary [Findings and recommendations]:

From the data in the dataset and the visualization based on this data [Figure 1] we can say that the crime prone areas in LA are Area 3 i.e. Southwest LA and Area 12 i.e. 77th Street of LA. This can be indicated by interpreting the number of crimes till date in each of the areas. This leads us to further questions like is there any time during which crime events takes place within these areas, if yes, what kind of the crime is the area more prone to, is there any particular gender being targeted in these areas?

As the time have multiple unique values, but also follows some sequence, so it makes sense to bin the data with the time variable. We have binned data in time variable within 4 bins, i.e. Morning, Afternoon, Evening and Night. Based on this, we can see [Figure 2] that the most prominent time for crime events to take place is Evening. Hence, our analyses is that there are more crime events in evening, hence we recommend to use more security measures within these time duration as compared to other time durations.

Digging deep in the analyses, we can see also see the victim gender within these areas. Based on the analyses, male gender has been the gender that has been targeted the most overall, however, there not a very significant difference between the number of cases between males and females. Also, the most dominant crime within Evening time in the more prone areas of crime is 624 i.e. Simple Assault, 440 i.e. Theft Plan and 310 i.e. Burglary [Figure 4]. Collectively, these 3 crimes have been more female centric, but as said earlier, the group to we recommend focusing on should be both, males and females out of all [Figure 3].

The weapons that are more widely used on the target victims on the dominant crimes are also something worth considering, as these could be used to understand and modify the regulations on purchase and distributions of the weapons. It can be observed that most crimes are committed by using the physical strength by the criminals or by verbal threat. (Weapon codes 400 & 511). Further, the most used weapon is the knife with blade 6 inches or less (Weapon code 200). An important finding is that Area codes 1 to 6 has the highest use of hand gun/pistol or revolver. We recommend using some stringent regulations behind usage of such weapons and have a more detailed and stricter distributions on such weapons in these areas.

Based on the various models generated using Classification technique, it can be observed that Adult age group is the most targeted age group for crimes in LA, followed by teen and kid. We observe the Best Pruned Trees and state that age is a primary factor for categorizing the types of crime committed, types of crime are associated with involvement of different weapons in crime. It can also be seen that it is most likely that teens are attacked in Area 3 which is one of the highest crime prone location with weapon code 400 i.e with the physical strength. It can also be seen that teen and adult females are most likely to be attacked in Area Id 1 i.e. Central LA with strong arm(fists, etc) followed by knives, bottles, pepper sprays, metal pipes, strong arms, chain and stick. Based on this, we recommend that measures can be taken by government agencies to make people aware of potential chances and types of assaults.