The name of my project is called YellowJacketLA. The overall objective of this project is to empower Los Angeles communities through predictive crime analytics for enhanced safety

Problems I tried to solve:

Safety and security are paramount to fostering thriving communities. In Los Angeles, with its vast urban expanse and diverse neighborhoods, understanding and predicting crime patterns can be transformative. Equipping citizens with real-time and predictive insights into crime trends can foster community vigilance, empowering them to take proactive safety measures. At the same time, such insights can guide the police department in optimizing their resource allocation, ensuring that every neighborhood gets the protection it deserves.

The goal is to develop Predictive Machine Learning models that can be integrated into web/mobile application that:

1. Informs Residents:
2. Offer real-time updates on recent crimes in specific areas.
3. Provide historical crime data to help residents understand trends in their neighborhoods.
4. Predictive Crime Analytics: Utilize machine learning models to forecast potential crime hotspots, alerting residents and businesses of areas that might need increased vigilance.
Identify patterns in crime occurrence based on various factors such as time of day, events, and socio-economic indicators.
Engagement Platform:
5. Allow residents to anonymously report suspicious activities, creating a community-driven safety network.
6. Offer safety tips and guidelines based on current crime predictions and trends.
7. Resource Allocation for Police Department:
Provide actionable insights to the police department on emerging crime hotspots, enabling timely interventions. Offer data-driven recommendations on patrol routes, staffing, and community engagement initiatives.
8. Social Impact:
By fostering a collaborative ecosystem where citizens are not just consumers of safety insights but also contributors, we create a resilient community that's alert, informed, and prepared. Enhanced with predictive analytics, this application seeks to bridge the gap between residents and the police department, ensuring a collective approach to safety, reducing crime rates, and promoting trust and collaboration for the greater good of Los Angeles.

Data Collection:

Scraped data from the university of Southern California DPS website where they regularly post crime alerts or timely warnings.
Also get the historical crime data in LA area from LAPD official website

Analysis and Visualization:

The Analysis we will be doing, I will examine the correlation between each variables(e.g. Victim info, Suspect info, Location, Timestamp) and its associated type of Crime. The visualization I will be doing include a heat map geo distribution of the crimes happening in the LA area. Counts for each type of crime, victim, suspect summary based on the given data as well as the crime counts changing over time.