Projects

Traffic
The traffic simulation is responsible for moving cars around the city, while obeying traffic lights, stop signs, and other rules of traffic.

Zoning/Logistics
The zoning simulation will is responsible for placing businesses, residences, and other important landmarks on the map. The logistics simulation creates demands on airports and harbors for trucks and cars, and includes handling parking structures in the more crowded areas of the city.

Uber
The Uber service is a dispatching simulation, creating demands for source and destination. Uber will constantly generate travelers, in the form of a source and destination location, and create Uber cars that are driven by the traffic simulator randomly, until a ride request comes along.

Emergency Services
The emergency service simulations will simulate police and firefighters responding to randomly created events in the cities. The traffic simulation drives the emergency vehicles around. The emergency services can also modify traffic lights to speed up the time they take to arrive.

Scheduler
The scheduler simulation creates citizen’s schedules, such as leaving home, going to work, going out to dinner, etc. The scheduler follows a traditional real-world citizen schedule times, like working from 8AM-6PM.

Amazon Prime Now
The simulators will model a service by Amazon called Prime Now, where customers can order items and have them delivered within a window of 2 hours. Extra: Amazon Prime Now has stocking of products based on trucks received from the Zoning/Logistics simulation truck deliveries. For simplicity, assume there are only 3 different types of products.