

Some extra information regarding the python code:

- A station has a maximum (soft) capacity, it can be exceeded but a penalty cost.
- The vehicle has a hard maximum capacity, it cannot be exceeded.
- The travel time of the vehicle is equal to the mean travel time of bikers between stations, and if there was no realization we assumed it travels 20km/h. Transforming coordinates (longitude, latitude) to travel time is already done for you.
- The current environment assumes travel times are normally distributed with a minimum of 60 seconds.

- There are two main classes. The BikerTrainer and the BikerEnv. The first one is making decision and the second is the environment in which the bike-sharing is done. In other words, the BikerEnv class is a simulation that performs the actions of the bikertrainer.
- The logic of any SSDP is then simple (this can be found at the complete bottom of the code).
 - o As long as the Environment says to continue:
 - The environment returns a state description of the reality
 - The trainer takes this state description and determines a decision.
 - The decision is feed back to the environment, and a step towards the future is made incurring some reward (or cost)
 - The trainer takes the reward + state + decision taken and updates internally how 'well' the decision for that particular state was.
- The environment works with a list of Event objects. Each event denotes a time and a particular 'event' that happens
 - o A vehicle that picks up bikes
 - o A vehicle that drops bikes
 - o A customer picking a bike
 - o A customer dropping her bike
- The current action that the trainer returns is NOT intelligent NOR smart NOR good, but it helps a bit:
 - o Every time a vehicle dropped bikes, it searches for the station with the most bikes and the fewest bikes. It then goes to the station with the most bikes, takes the number of bikes that balances both station, and delivers those bikes to the station with the fewest number of bikes.
 - o Nothing more.
- The rewards that are currently incurred are:
 - o A cost of 1 for not being able to serve a customer
 - o A cost of 10 if a vehicle drops more bikes than possible at a station