

## Round 1 : Thinking, Design and Analytical Assessment Test (Low Level Design problem)

### Design an Automated Toll Booth System

**Duration:** 12 pm - 2 pm IST (June 5th).

#### **Requirement:**

Assume you will receive a request from the automated system to charge the vehicle owner wallet.

Design a system in such a way that it will deduct the amount from the user wallet for x rupees based on the vehicle type ( car/truck/semi-trailer/bus etc). Each vehicle type will have its own pre defined charge.

#### **Things to consider**

1. Give x % discount for a user who is making a return trip before 24 hours
2. If the wallet is running low on balance it should fail.
3. Avoid double charge at the same toll.
4. Allow certain vehicles to freely pass without any charge.
5. Add API endpoint to get total amount collected and total vehicle passed that day.

**Your output should be a [GIT Repo](#) on Github.**

#### **Prep Material:**

Here's a popular and well known sample of what you will be expected to do [GIT REPO](#)  
<https://github.com/anomaly2104/lld-cab-booking-ola-uber-grab-lyft>

Please follow: SOLID principles : <https://en.wikipedia.org/wiki/SOLID>

Once done please send the link to <[aartee.agrawal@wisestep-inc.com](mailto:aartee.agrawal@wisestep-inc.com),  
[naureen.khan@wisestep-inc.com](mailto:naureen.khan@wisestep-inc.com) and CC [balakrishna.v@wisestep-inc.com](mailto:balakrishna.v@wisestep-inc.com)>.

You should be able to submit the assignment by **2 pm IST on June 5th**.

Goodluck super excited to move you to the next round :D