Automobile Sharing

Topic

An Automobile Sharing Platform that allow car owners to share(rent) their car when they do not need it. Drivers and Commuters can get benefits from car sharing.

Involved Entities (Roles)

Car owners; Drivers; Commuters.
The Basic Model would be: a Driver D, driving a car rented from owner O, provides service to Commuter(s) C.
Roles can be overlapping. For example, some commuters wants to drive on their own (like car rental); some car renters can also be drivers in their free time (like taxi or uber).

Business Description

In this Car-sharing business model, Car owners may first submit their car description, dates of availability and other information to the Car Sharing Platform. Drivers can submit their driver's license, choose the car they wants to rent. Commuters may choose the place the would like to go to and the time of departure, pair up with drivers/cars and take a ride.

Potential Problems

- Car keys - if the car needs a materialized key to start, which is most of the case in today's world, car owners must give the key to those who rent the car. The problem can be solved if digital keys are used.
- Pairing algorithm - with three roles involved, a complicated algorithm might be needed in order to finding the optimal paring between cars, drivers and commuters.
- Pricing - Price should depend on time and distance. The platform should offer competitive price to car owners and clients, while the drivers wants to make more money.
- Send back - The car owners may wants the car back to its original parking place when the sharing period ends. A special trip might be needed to ask a driver to send the car back.

Blockchain Solution

Using as a public ledger, a blockchain could contain cars info, drivers info and records of every car-sharing process.
(to be developed..)

Resources

Origin Protocol - a protocol for creating sharing economy marketplaces using the Ethereum blockchain and IPFS
https://www.originprotocol.com/en
https://github.com/OriginProtocol/demo-dapp

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https://www.autoblog.com/2017/08/30/blockchain-technology-car-sharing-mobility-services/
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