



## **Shared Taxi Business on Blockchain**

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## Is it possible to propose a model without the need of a manager?

We can make this model work without the manager but we need some changes.

First of all, anyone can call the **proposeDriver** function and I think we don't need the **setDriver** function because when someone votes using the appropriate function (ApproveDriver) for Driver, we can check whether the majority of the participants voted for that driver in the **ApproveDriver** function and we can set the driver automatically.

In the same manner we don't need **setCarDealer** function because anyone can propose a car dealer and majority can vote for the dealer, when the majority of the participants approved we can set the dealer automatically for that purpose we need two other functions: **proposeCarDealer** and **approveCarDealer**.

We also don't need the **purchaseCar** function when someone votes for the car using appropriate function(**approvePurchaseCar**), we can check whether the majority of the participants voted for that car in **approvePurchaseCar** function and we set the car automatically.

We can implement the **FireDriver** function in such a way that if someone wants to fire the driver, can call the **proposeFireDriver** function and if the majority approve it with the appropriate function (approveFireDriver) we can fire the driver. We will check whether the majority approve for firing the driver in **proposeFireDriver** function and in that way when the majority approved we can fire the driver automatically.

We can change the **payCarExpenses** function in a way that only dealer can call it and we have to make sure that driver is not calling this function more than once in the last six months. There is a slight change in dealer's profit due to required ether to call the function but we ignore it.

We can change the **releaseSalary** function in a way that only the driver can call it and we have to make sure that the dealer cannot call this function more than once in the last six months. There is a slight change in driver's profit due to required ether to call the function but we ignore it.

We can change the **PayDividend** function so that any participant can call this function, and we must ensure that this function is not called more than once in the last 6 months. If a participant calls this function, the total profit will be calculated after costs and driver's salary subtracted. We ignore the small change in the profit of the person calling this function due to required ether to call the function.

**Note: I ignore the initial deployment fee of the contract and ignore the ether(small value) required to call a function.**