Discussion Question Answer

I believe it is possible to have a model without a manager that all participants can trust. We will go over the functions only the manager can run and explain how they can be converted to functions other roles can execute without affecting the reliability of the application.

Firstly, "approvePurchaseCar" and "approveDriver" functions will check the "approvalState" counter after a participant votes. That way no one will need to call "setDriver" and "purchaseCar" functions separately because voting functions will call them if the counter is bigger than the half of the total participants. Meanwhile any participant will be able to call "proposeDriver" function to propose a driver it doesn't pose a reliability issue.

Similarly, "setCarDealer" function will have corresponding "proposeCarDealer" and "approveCarDealer" functions. Also, "fireDriver" function will have a corresponding "approveFireDriver" function which does the same things explained "approve" functions do in the previous paragraph.

These are the functions participants can handle by building automatic vote counter into the system. Now we will go through the payment functions.

Once a participant call "getDividend" it will call the "payDividend" function. If dividends are not paid in the last six months, it will be paid automatically. Additionally, "payDividend" function will call "payCarExpenses" function and if expenses are not paid in the last six months it will pay automatically. It is not required for anyone to call "payDividend" and "payCarExpenses" functions separately.

After these adjustments we don't need a manager in our system.