Problem: Booking Taxi

Things:

Rider

    State: Name, Address

    Behavior: loginToTravelApp, bookRide, searchRide, cancelRide, rate

Taxi

    State: Number, brand, model, capacity, Collection of Types (Prime, mini, micro)

TravelApp

    Behavior: authorize, assignsTaxi, searchRide, notifyDriver

Trip

    State: WaitTime, FromLocation, ToLocation, status

    Behavior: getCurrentLocation, startTrip, endTrip

Driver

    State: Name, rating

    Behavior: cancelRide

CreditCard

    State: Number, ExpiryDate,Name, Company, SecurityCode

CreditCardProvider

    Behavior: accessProvider

Type

    State: Mini,Micro,Prime

TripConfirmation

    State: rideBooked, rideCancelled, rideStarted, rideEnded

Rider divya

Taxi taxi

TravelApp uber

Trip trip

Driver driver

CreditCard card

CreditCardProvider visa

Type prime

TripConfirmation tripConfirmation

PaymentConfirmation paymentConfirmation

CancelConfirmation cancelConfirmation

divya.loginToTravelApp -> uber : authorize

If(authorize.true)

   If uber is available

        divya.searchRide -> uber,fromLocation, toLocation **:** Collection of Type

        divya.findDesirableType **->** Collection of Type: type   // **Type indicates the models of cars

        provided by uber (Eg: Mini,Prime,Sedan)**//

        prime=type;

        divya.bookRide-> uber, prime, creditcard, fromLocation, toLocation : trip

        uber.processPayment -> card, visa, amount : paymentConfirmation

        if paymentConfirmation !=NULL

                uber.assigntrip -> trip,driver,taxi,rider : tripConfirmation

        else

                uber.cancelbooking

        end

     else

       divya.cantRideinUber

```
        end

else

        divya.cantBookRide

end


Cancel Ride:

If (trip.status != started)

        divya.cancelRide -> uber,trip : CancelConfirmation

        cancelConfirmation=CancelConfirmation

        uber.notifydriver -> driver,trip

        uber.refunduser -> visa,card,amount : paymentConfirmation

else

        trip.cannotCancel

end


StartTrip:

If (driver.currentLocation == divya.fromLocation)

driver.startTrip -> uber,trip : tripConfirmation

end
```