# Parking Ticket Simulator

Each member of your team is to implement and unit test one of the specified classes. Then, propose and use a ***system integration strategy*** for integrating the classes. **Note**: The class diagram given is an analysis model, your implementation model should include abstractions that will allow for mocking.

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| **ParkedCar**   * Simulates a parked car * Knows the car’s make, model, color, license number, number of minutes parked |
| **ParkingMeter**   * Simulates a parking meter * Knows the number of minutes purchased |
| **ParkingTicket**   * Simulates a parking ticket * Reports the make, model, color, and license number of the illegally parked car * Reports the amount of the fine   + $25 for the first hour or part of an hour that the car is illegally parked   + plus $10 for every additional hour or part of an hour that the car is illegally parked * Reports the name and badge number of the police officer issuing the ticket |
| **PoliceOfficer**   * Simulates a police officer inspecting parked cars * Knows the police officer’s name and badge number * Examines a ParkedCar and a ParkingMeter, and determines whether the car’s time has expired   + Issues a parking ticket if the car’s time has expired |

# Analysis Model

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