Lecture – Software Development and Practice
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Topic – Enterprise fleet management system

Abstract - Enterprise Fleet Management System is a modular-based system that has been developed in conjunction with a group of industry representatives with the sole intention of making the task of managing a fleet of vehicles an easy one. Enterprise Fleet Management is a full cycle solution that offers functionality to manage a vehicle from the time it enters the business to the time it is disposed of. Assigning an enterprise vehicle is based on various factors. Factors such as an enterprise consist of various categories of employees, for example, some might be permanent while other might be external and there may be other criteria's also. In an enterprise, employees fall in different payment scale which will affect the allocating of a car to the employee. Once the vehicle is assigned to an employee, details such as assigning of the vehicle time, the name of the employee and personal id of the employee needs to be recorded. Once the vehicle is returned after its usage, the vehicle must be unassigned and made available for the next employee. Considering these conditions an enterprise fleet management system should be implemented.

Typical features of a fleet management system comprises,

Fleet Inventory Tracking – For organizing the fleet assets, you need to manage the information about your fleet (cars, trucks, buses, etc.). Also, various categories under which the fleet is organized needs to be structured. For example, individual (small-group) employee transport, large-group transport, or heavy material-transport.

Inspection Maintenance – Tracking the fleet for providing appropriate maintenance, for example, repair-date, mileage, kilometers, etc. Corresponding updates to be sent to the respective person via an email, sms or phone call should automatically provide maintenance reminders and appointments.

Repair Maintenance – Keep a track of repairs done on the fleet assets to analyses the efficiency of the vehicle. Certain conditions need to be defined for accepting the usage of the fleet asset. A small list of accepted conditions needs to be defined for each category and stored in your system. This is important for cross-checking the viability of asset.

History Recording – A detailed categorized history of each fleet asset, i.e. Usage, repairs, expenditures on a specific asset needs to be recorded and reports have to be made available when required.

Fuel Tracking – The fuel tracking for each vehicle is important to determine fuel expenses and potential issues with wear and abuse of the vehicle. After each usage of the vehicle the fuel should be logged, typically in current systems this is done by scanning-device. However, even though you are not working with scanning devices, the functionality needs to be exposed through he correct Class (methods (API).

Proposed System (Minimum Requirement) – From the above-mentioned features, the responsible team has to be implementing the modules listed below; it is necessary to include the entire programming practice concepts taught during the lecture.

- Fleet – The fleet module must handle all the vehicles registered for the enterprise, creating, updating, retrieving and deleting a vehicle is handled by this module

- Fleet Status – The fleet status module will be responsible for assigning, revoking a vehicle to and from an employee. This module should also handle current location of the vehicle

- Employee – The employee module will handle the details of the employees, for example, creating, updating, retrieving and deleting an employee. Note – consider only simple and minimal information for the employee record because the project focuses on Fleet management and not employee management.

- Overview – The overview module will list the status of the vehicles and list all the available vehicles; this module is linked with the reporting section and thus use Dynamic Jasper (It is mandatory for your to develop and present the report functionality using Dynamic Jasper).

Group Members –

Matriculation #	First Name	Last Name