**Final Project report**

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Course: Object oriented Software design

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Title: myUber: a car-ride sharing system

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# Introduction

The project is an attempt to design and create an Java framework for myUber so that it can be used by numerous customers and drivers as well as the system manager himself(herself). The main difficulty with the creation of such a framework is the fact that the communication between different part of the system, and how to make our framework be extendable. The need for such a system is justified as the use of car-sharing application is a common part of everyday life for most people in urban city. It is likely that the usage of Uber will increase in the future.

For the developer of a more concrete and more realistic myUber application, this framework gives a great amount of hints for the methods that will be needed for user or driver as well as the simulation for the whole car sharing progress. This project also

explores the possibility that new types of cars can be added to the system without great change in code, flexibility to set up the simulation zone and simulation time. In addition, we develop this system not entirely depend on the project requirement but taking into account the real-life facts.

## Overview of the Project Progress

1. Define core class and design pattern
2. Handwrite the UML
3. Define attribute
4. Use junit test to implement methods
5. Simulation
6. CLML – not done yet
7. Evaluation and write the report.

## Overview of this report

This report fully describes the project undertaken which is split into five main sections:

1. Introduction and background This introduces the project, its aims, an overview of the work undertaken in the project and an overview of this report.
2. Analysis of the design pattern and UML structure. Further, possible extensions to the basic design requirements are proposed.
3. Implementation - Discussion of the implementation choices taken and the software that was developed. Detailed advantages and drawbacks are given for the implementation.
4. Testing and result - Results of the success of the implementation for two main use cases tests.
5. Conclusions - Analysis of the successes and failures of the project, and discussion of the advances made.

In addition to these main sections there is a number of appendices. These

appendices contain:

Appendix A – maybe some usage for certain functions

# Background

As stated in the project description in this course, Uber is a ride-sharing system which allows inhabitants of a metropolitan area to get a ride on a car driven by a professional driver. The Uber system consists of several parts including: the cars (which circulate on the metropolitan area), the drivers, the customers (the persons registered to the system and that can book a car ride). Based on the systems requirements and what is like in practice we develop a Java framework, called myUber for representing and managing the Uber ride-sharing system. What’s more, myUber system actually takes the shape of mobile application and since java is compatible with Android operation system, thus our framework can have great value for mobile application developer.

Precisely, what distinguishes our project is the fact that we personalize our using area whose center is Paris, with a radius of

Project 介绍，java安卓

MyUber system 适用范围（特征）： 在以巴黎为中心的半径为xx的范围内使用我们的系统

Developer 参考

# Analysis and design

UML

MyUber

Customer

Driver

Ride

Car (factory pattern)

# Implementation

Function of methods, to notify : change field

To realise communication

To accomplish certain functions

Simulation:

Customer: createanewride

Myuber:driverallocation

Customer: aboard

MyUber: ridefinished

Composition:

# Testing

# Results

# Conclusion

# Appendices

Red character : needs to be completed

We should emphasize