Project Report for Software Engineering I

Texas Tech University

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**Parking System**

Team Members:

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**Link to the Project**

<https://github.com/dipenpratap/Software-Engineering-I>

**Goal of the Project**

The goal of this project is to design a parking lot system that keeps track of vehicles parked and exited. It also provides the user with an interface where he/she can select from three main options: (1) Park, (2) Exit, and (3) Extend. Furthermore, the user will be provided other options after selecting one of the above-mentioned use cases.

**Potential Users**

As we all know that transportation moves the world. Almost every adult in United States own at least one if not several vehicles. We commute to work, home, school, parks, malls and we see the parking lots covers more area than the facility itself. Hence, it is obvious that the parking system is one of the major components of any business. This program can be useful to manage the parking system and make the whole process simpler, quicker and efficient. The potential users for this software would include the following groups:

1. Parking Garage Owners

2. Valet Parking Systems

3. Business Enterprises

4. School & Campuses

5. Users of the Parking Garage or Parking lots

**Contribution of each teammate**

Dipen Yadav - Exit.java

Vision Poudel – Parking.java

Pritish Ayer – extend.java

**Uses Cases**

**Park**

1. Membership

> Member;

> Guest

2. Select type of vehicle:

> Two-Wheeler;

> Car;

> Bus;

3. Estimated Time

> Hour;

> Day;

> Week;

4. Finalize

> Are you sure? Press OK to proceed...

5. Display Thank you message!

**Exit**

1. Check time interval;

> (Current time - Time while parking)

2. Perform Calculations

> Different prices for Members & Guests;

> Show total amount on Screen

3. Pay

> Provide user options of payments (Debit, Credit, Cash, Apple Pay);

> After Payment is completed, TWO Options (RECEIPT or NO RECIPT);

> Print Receipt for second option

4. Display Thank you message!

**Extend**

1. Select Vehicle Type:

1. Two- Wheeler

1.a. Hours

> Provide hours options (30 mins, 1 hour, OR Enter Manually);

> Show rates for respective extensions

1.b Day

> Provide day options (1 day, 2 day, OR Enter Manually);

> Show rates for respective extensions

1.c Week

> Provide day options (1 week, 2 weeks, OR Enter Manually);

> Show rates for respective extensions

2. Car

2.a. Hours

> Provide hours options (30 mins, 1 hour, OR Enter Manually);

> Show rates for respective extensions

2.b Day

> Provide day options (1 day, 2 day, OR Enter Manually);

> Show rates for respective extensions

2.c Week

> Provide day options (1 week, 2 weeks, OR Enter Manually);

> Show rates for respective extensions

3. Bus or Commercial Vehicle

3.a. Hours

> Provide hours options (30 mins, 1 hour, OR Enter Manually);

> Show rates for respective extensions

3.b Day

> Provide day options (1 day, 2 day, OR Enter Manually);

> Show rates for respective extensions

3.c Week

> Provide day options (1 week, 2 weeks, OR Enter Manually);

> Show rates for respective extensions

4. Confirm Extension

> Display Thank you message!