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**New System Requirements - Deliverable 2**

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**SYST28951 Systems Development Methodologies - 1235\_32241**

Joe De Franco

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**1. CLIENT OVERVIEW**

**1.1. Client**

Customers that need car washes and detailing for personal or commercial vehicles and would like to save time and gas money.

**1.2. Business**

The Suds To Go system is a mobile car detailing and wash that travels to the customers home and/or work site. The current system is completely manual.

**1.3. Services**

* Book appointment for more than one vehicle in one scheduled time (maximum of 12)
  + Car must be seated 8 or less (no oversize vehicles)
  + Appointments are done via social media by leaving a message which will be respond in 24 hours
* Provide car cleaning and detailing for:
  + Exterior only (30min)
  + Exterior and Interior (1hour)
* Stain and/or odor removal (1.5hours - 50% surcharge and must be noted at time of booking)
* Can be paid with debit or cash on premises (no credit card)
* Customer can leave reviews on social media

**1.4. Stakeholders and System interest**

**1.4.1. *CUSTOMER***

In the current system the customer can book an appointment(s) by messaging Suds To Go through social media in which they would receive a confirmation response within 24 hours. The limitation with this is that if they need to cancel, assuming there is cancellation as the case study didn’t specify, they would require to contact them via social media.  As for payment the customer must pay in person with debit or cash.

What customers want from the system is a fast and easy way to book, cancel and change appointments in addition to a convenient way of paying for the services and tips.

**1.4.2. *EMPLOYEE***

In the current system the employees are contacted regarding bookings by their employer via a group chat to ask who is available that day. If additional employees are needed it would be messaged on the same group chat in which the first part-time employee(s) to respond will get  the spot. The limitation with this is that its employees would be required to look at the group chat when they are next scheduled (which can get disorganized easily as they are messaging each other on the same chat). In addition there is no real organization for part-time employees availability and instead runs on a first-come-first serve basis.

What employees want from the system is the ability to view and keep track of available appointments and possibly be given an optimal route to get from appointment-to-appointment.

**1.4.3. *OWNER***

In the current system, when messaged regarding a booking, the owner would need to message back confirming that there are no stains or odors and that the vehicle isn't oversized (since this is a manually run system). In addition when employees receive tips from the customers the owner would keep the cash tip and divide it evenly at the monthly team meetings amongst all employees. The limitation in this is that it limits customers to pay tips only in cash. Moreover this method of manually dividing it amongst employees in monthly team meetings makes it hard to track who didn’t get their portion as they missed the team meeting or were on vacation. The owner also only keeps a paper list of client names and addresses which makes it hard to contact them for repeat booking.

What the owner wants from the system is to have it be more automatic via online then the current system which is manual and on paper. They want to have a website where customers can pay and make their bookings by filling the required information. If customers need to change/cancel their appointments that can also be done via the website. Both the owner and employees can view available appointments and receive optimal routes to take from appointments. When the owner receives the tips they just need to enter it into the system which would automatically divide it and make notes on the employee files. The owner also desires the system to give them the ability to schedule employees in addition to having the system generate monthly reports.

**2. SYSTEM VISION**

**2.1. System Problems**

The main issue with the current system is that it’s all manually done:

* Payment is done on the premises with only debit and cash as options
* The inability of keeping track on who received tips if all employees aren’t present
* Clientele names and addresses are only available to the owner on paper
* The inability contacting customers for repeat bookings and reviews
* Difficulty in reporting revenue and predict income since data is all on paper

**2.2. New System**

For the new system to succeed they should digitize it:

* Customers should be able to:
  + Book via website where they must provide:
    - name and contact information
    - a deposit
    - vehicle make and model for each vehicle
    - service type for each vehicle
    - specific if there are any additional deep cleans needed
  + Cancel and/or change appointments up to 24 hours on the website
* After the service the customer should receive a thank you email and a request to review their experience
* Employees should be able to:
  + view available appointments
  + volunteer to work shifts
  + see optimal driving routes to take between appointments
  + see their expected tip payout
* Owner should be able to see everything the Employees do in addition to:
  + approve bookings
  + enter tips (which would automatically be divided and noted on employees’ files)
  + schedule employees and vacations
  + view monthly reports generated by the system such as:
    - monthly revenues
    - monthly tip payout to each employee
    - monthly reservations (bookings and cancellations by commercial and personal)
    - summary of positive vs negative reviews
    - most frequently serviced vehicles

**2.3. Business benefits**

The benefits of the new system would allow tracking and contacting previous customers to have them come back easier. Reporting the systems revenue and predicting the income will be easier to obtain as it would all be digital and automatically generated monthly. Booking, changing, and cancellations have become easier for customers as it can be done via their website instead of messaging through social media. The owner would be able to keep track of tip payouts as it would be automatically divided and noted in employees’ files lowering the percentage of missed out tips.

**3. CONTEXT DIAGRAM**

**Figure 3.1. *Website System***

A diagram of a website

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**4. USE CASE DIAGRAM**

**Figure 4.1. *Suds To Go Website***

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**5. USE CASE NARRATIVES/SCENARIOS**

**5.1 Use Case Scenario by YB**

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**5.2 Use Case Scenario by: RA**A white background with blue text

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**5.3 Use Case Scenario by SMF**

Use Case: Employee Shift Management

Normal Flow:

1.Employees log into the Suds To Go system using their credentials.

2.The system displays available appointments and shifts.

3.Employees volunteer for shifts by selecting the desired time slots.

4.The system confirms the employee's shift selection and updates the schedule.

Alternative Flows:

* If an employee selects a shift that has already been filled by another employee, the system notifies them and prompts them to choose an available shift.
* If an employee cancels a shift they were previously scheduled for, the system updates the schedule and redistributes the shift among other available employees.
* If an employee encounters technical difficulties while accessing the system, the system provides an alternative method for shift selection, such as contacting the owner directly.

Reason for Choosing this Use Case:

Employee shift management is a critical aspect of Suds To Go's operations. This use case allows employees to view available shifts. It streamlines the process of scheduling and ensures efficient coverage for the bookings. The alternative flows address scenarios where conflicts or technical issues may arise during shift selection.

**5.4 Use Case Scenario by UZ**

The use case scenario is as follows:

1. Customer make account on system website/media
2. Customer logs into their account
3. Customer searches for available appointment
4. System detects the customer’s activity
5. System provides customer with the information about available dates
6. Customer confirm/cancel
7. Customer pays

Alternative flows:

* If customer cancels the appointments before the appointed date, the system updates the information and refunds the customer’s payment

* If the system is not able to provide the customer due to some circumstances (e.g on appointment date). The employee contacts the customer and offers an alternative or refunds the customer.

**6. DOMAIN CLASS DIAGRAM**

**Figure 6.1. *Suds To Go Website***

A diagram of a customer service

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