OO Analysis and Design Lab Week 1

# Identify Actors

## Work manager

The actor who watches over and takes care of the shop.

So the goals are:

* Provide that the customer are happy .
* Increase the amount of transactions in store.
* Increase the amount of returning customers
  + Inspects it and creates a job specification

## Customer

The person intended to buy the product. In the case of the garage it’s anyone who wants to deal and purchase or repair there car. The customer is ultimately responsible for deciding whether to whatever to deal with the mechanic .

## Mechanic / Attendant

Is the specialist who repairs and deals with the customers care.

To earn money at a profit and to create a service that will improve the business of the client and to reach the goal of the customer. While in the same sense to reach the goal of the client in performing the actions needed to make the customer’s goal happen.

So the goals are:

* Provide services to the customer.
* Increase the amount of transactions in store.
* Increase the amount of returning customers
* Increase profit.

Automated payment system: Project development has to adopt rules delivered by that system (PayPal).

# Identify Use Cases

* **Create Job Specification**: If a vehicle needs to be booked in for repairs a work manager inspects it and creates a job specification.
* **Modify Job Specification:** If customer agrees to changes, the job specification is modified by the workshop manager before carrying out the work.
* **Create Report**: When the job is finished the mechanic completes a report detailing the time spent, work done and materials used.
* **Create Invoice:** An invoice for the customer when they come to collect their car.
* **Update Invoice :** Update invoice , when the car has been rechecked by the Mechanic
* **Make a Payment:** The vehicle will only be released on payment of invoice. Payment can be made using any of the usual payment methods
* **Book a service /repair :** Customer wants to book service repair online
* **Validate credit card Details:** Credit Card provider validates credit details.
* **Validate PayPal Details:** PayPal validates PayPal/credit information.

# Sketch a use case diagram to model functional requirements.

(Come back too).

# Create a summary description for each use case in table format.

|  |  |  |
| --- | --- | --- |
| **Use-Case Name** | **Use-Case Description** | **Participating**  **Actors  and Roles** |
| Create Job Specification | If a vehicle needs to be booked in for repairs a work manager inspects it and creates a job specification. | Work manager |
| Modify Job Specification | If customer agrees to changes, the job specification is modified by the workshop manager before carrying out the work. | Work manager  Mechanic / Attendant. |
| Create Report | When the job is finished the mechanic completes a report detailing the time spent, work done and materials used. | Mechanic / Attendant. |
| Make a Payment: | The vehicle will only be released on payment of invoice. Payment can be made using any of the usual payment methods | Customer. |
| Book a service /repair : | Customer wants to book service repair online | Customer |
| Validate credit card Details: | Credit Card provider validates credit details. | Automated payment system |
| Validate PayPal Details | PayPal validates PayPal/credit information. | Automated payment system  PayPal |
| Update Invoice | Update invoice , when the car has been rechecked by the Mechanic. | Mechanic  Work manager |

# Business Rules

* + List of accepted credit cards: Visa, MasterCard, American Express, Discover.
  + Services must be done within the booked time.
  + Online payment method must be PayPal or credit card.
  + Be able to take all normal forms of payment.

# Identify important concepts.

Define: where the basic concepts are actors and use cases.

|  |  |
| --- | --- |
| Name | Actor / Use case |
| Work manager | Actor |
| Customer | Actor |
| Mechanic / Attendant | Actor |
| Automated payment system | Actor |
| PayPal | Actor |
| Create Job Specification. | Use Case |
| Modify Job Specification. | Use Case |
| Create Report. | Use Case |
| Create Invoice. | Use Case |
| Make a Payment. | Use Case |
| Book a service/repair. | Use Case |
| Validate credit card Details. | Use Case |
| Validate PayPal Details. | Use Case |

# Sketch a class diagram to illustrate concepts and their relationships.

# Use Visual Paradigm to create final version of use case and class diagrams.