OO Analysis and Design Lab   Week 1

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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).
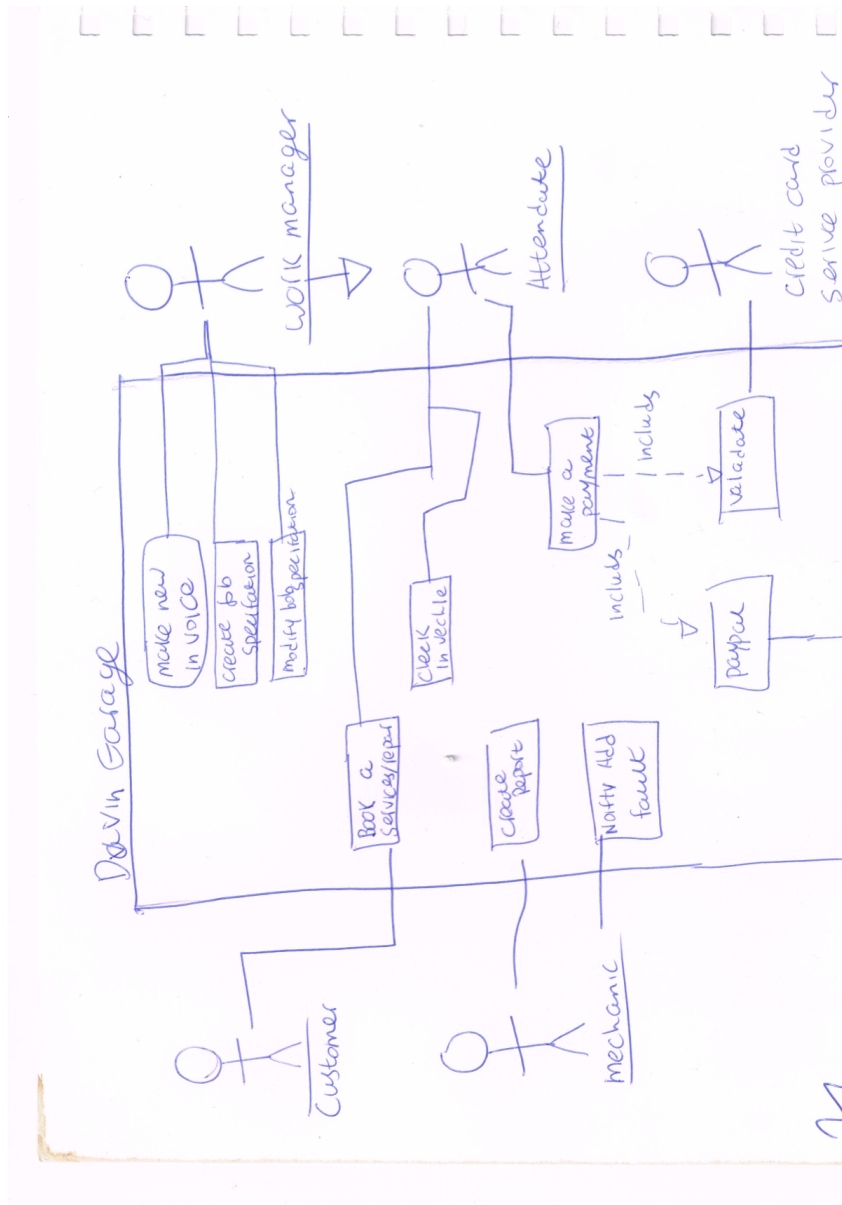
Paypal
Project development has to adopt rules delivered by that system (PayPal).

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.

- **View manufacturer specification :** View manufacturer specification

Sketch a use case diagram to model functional requirements.

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

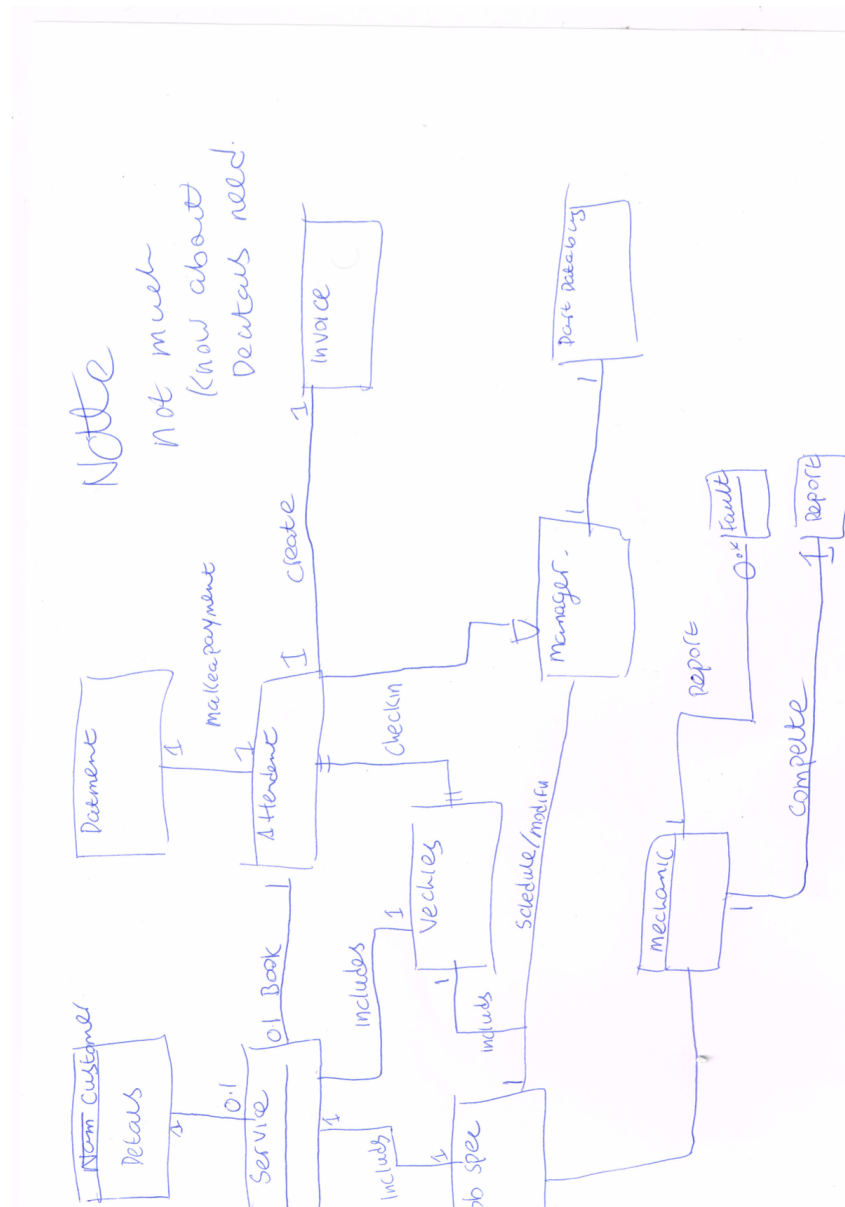| Check in Vehicle	Customr check in there car after payment	Customer Mechanic

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.

- Vehicle has to be a car or light commercial

- tyre fitting is free if tyre is purchased

- tyre fitting is free if tyre is purchase

- only one mechanic will work on a vehicle at any time

- vehicle has to be checked in on arrive

- vehicle can be released only on payment of invoice

- customer must authorize additional work before it is carried out

Identify important concepts.

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

Name	Actor / Use case
Work manager	Actor
Service	UseCase
Vehcle	UseCase
Customer	Actor
Paypal	Actor
Invoice	UseCase
Schedule	UseCase
Job Specification	UseCase
Report	UseCase
Payment	UseCase

Sketch a class diagram to illustrate concepts and their relationships.

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