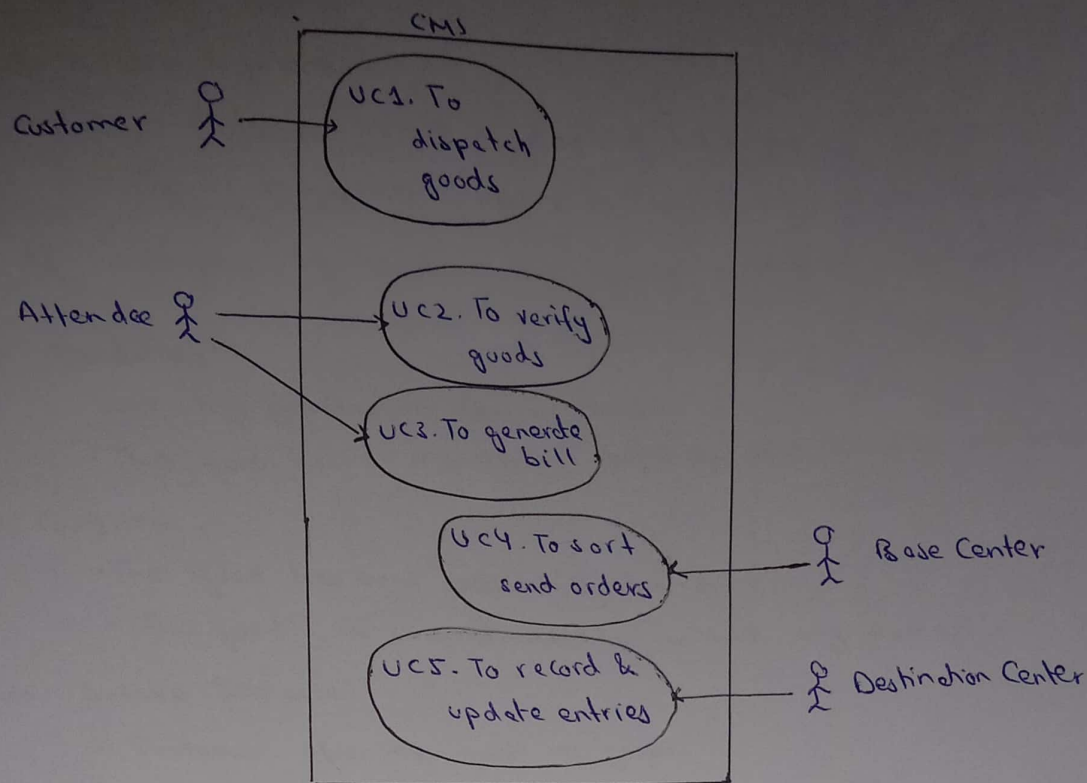


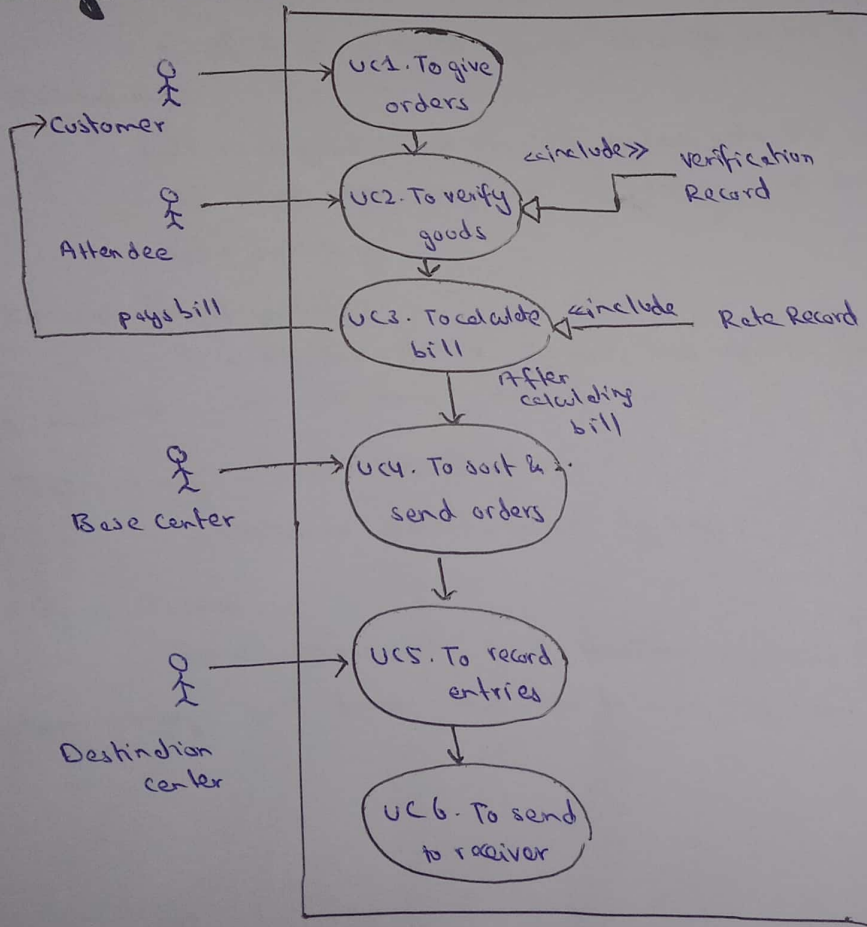
CASE STUDY 1:

Courier Management System

High Level Use Case Diagram:



Analysis Level:



Use Case Name:

Use Case Name:

To dispatch goods

2. Primary Actor:

Customer

3. Stake holders & interest:

Customer: Wants to dispatch his goods

Courier Management: wants to build a reliable business and have trust of customers by sending their goods at correct location within given time.

4. Pre - Conditions:

- User has provided an item or items.
- That good has a manageable weight so that it can be covered.

5. Post Condition:

- The good has been received by the receiver.
- The good is received safely without any damage.

6. Main Success Scenario:

1. Customer gives the good or goods.
2. Good is checked if it is according to condition
3. If it is a valid good then it is assigned to it.

7. Extensions:

- If that good is overweight, system asks the customer to provide valid good.
- If there are any kind of issues like strike etc, they are informed of late delivery.

8. Special Requirements:

This system should accept this courier for almost every place and provides the customer with tracking details.

9. Technology & Data Variation:

Customer Identification by CNIC.

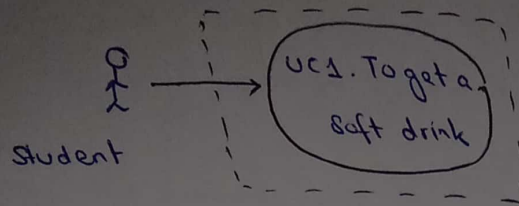
10. Open Issues:

Some issues like bad weather conditions or some strike may occur or system may fall down that can cause of late delivery.

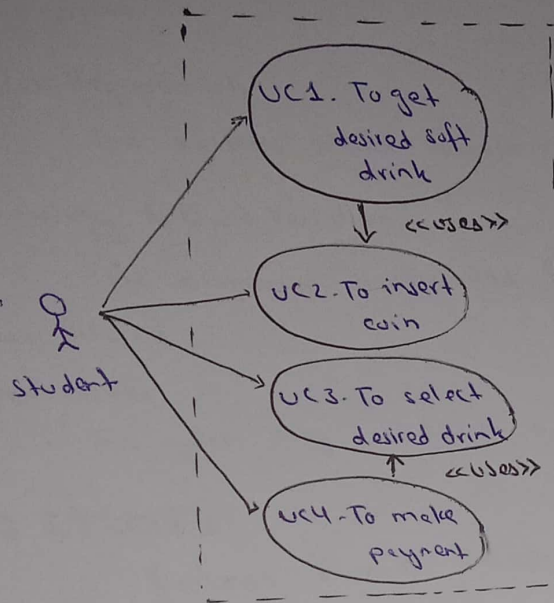
USE STUDY 2:

Soft-drink Dispenser Machine

High Level Use Case Diagram:



Analysis Level Use Case Diagram



Description:

1. Use Case Name:
To get desired soft drink
2. Primary Actor:
Student
3. Stake holders & interest:
Student: Wants to get a drink of their choice.
Management: wants to install a good soft-drink dispenser machine with different types of drink so that students can refresh themselves and focus on studies.
4. Pre Condition:
 - Students give valid currency.
 - Student selects the available drink.
5. Post Condition:
 - Students get the desired drink and now they are focused for their next lecture.

Balance is returned to student if y.

main Success Scenario:

1. Student enters currency.
2. Currency is verified (American coins not allowed).
3. Menu is displayed.
4. Student selects the drink which is available.
5. Drink is given to student & if any balance.

7. Extensions:

- If the student enters the wrong currency, the system asks to provide the valid currency.
- If the student selects unavailable drink, the system asks to provide the available drink.

8. Special Requirements:

The system should handle various types of currency & drinks gracefully.

9. Technology & Data Variation:

As dispenser is installed for students, so the student may be asked to scan his id.

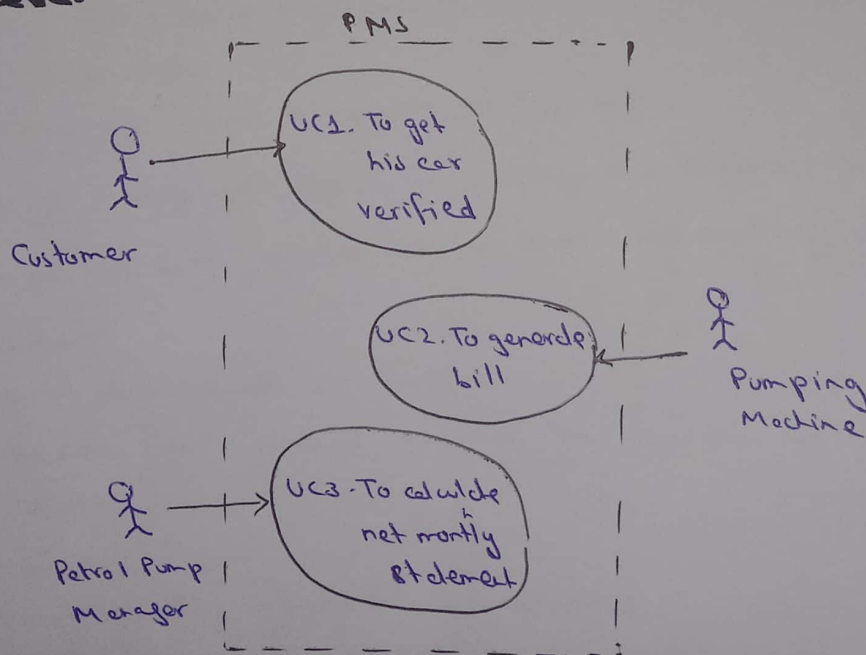
10. Open issues:

The system may fail due to over load.

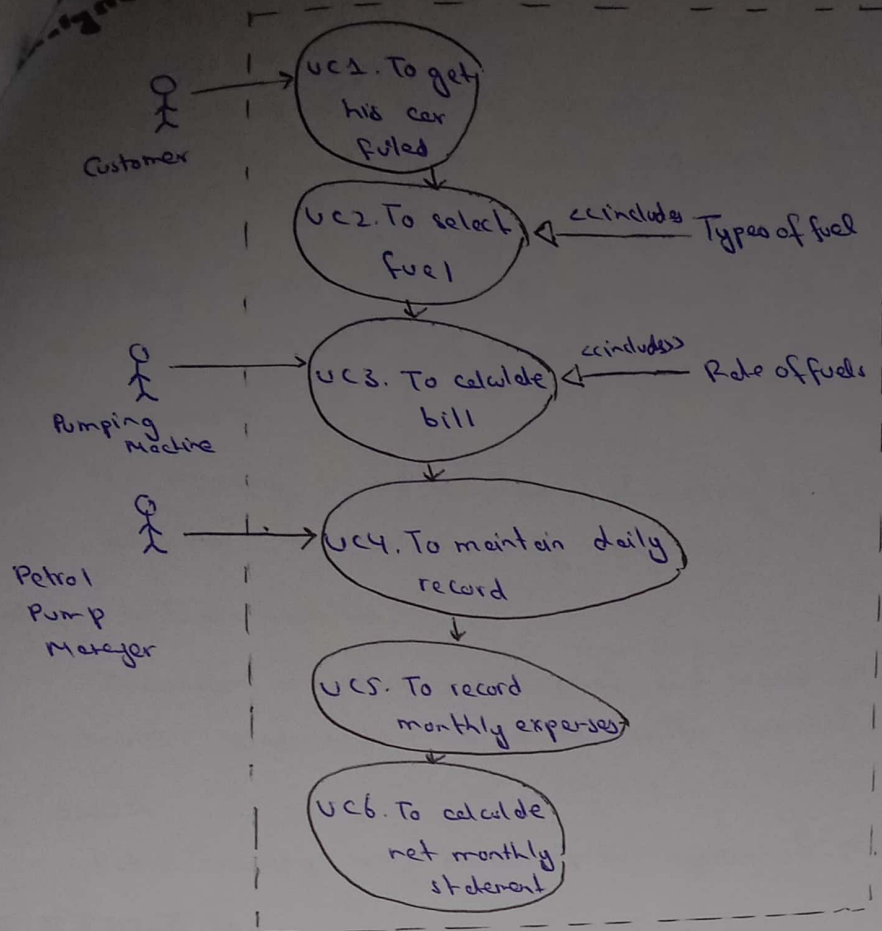
CASE STUDY 3:

Petrol Pump Management System

High Level Use Case Diagram:



UML Level Use Case Diagram:



Description:

1. Use Case Name:
To Calculate net monthly statement
2. Primary Actor:
Petrol Pump Manager.
3. Stakeholder & Interest:
 - Manager: Wants to calculate monthly card.
 - Petrol Management: Wants to satisfy their customers by providing them the different types of fuel and to calculate their net monthly profit.
4. Pre-Condition:
 - All other records are maintain
 - Records are verified so that the calculated net monthly statement is correct.
5. Post-Condition:
 - Net monthly statement is calculated.
 - You can now use to calculate your profit & loss and with that you can estimate which area needs improvement.

Business Story:

1. To record sale and purchase
2. To maintain daily records.
3. To record monthly expenses
4. To generate net monthly statement.

7. Extensions:

If the record of sale & purchase is not managed due to some system failure, the manager should compensate it in total monthly expenses.

8. Special Requirements:

The manager should calculate each & every single expense & manage each record to calculate the net monthly statement.

9. Technology & Data Variation:

Manager maintain each expense and record in different database and manager should login with his id to verify himself.

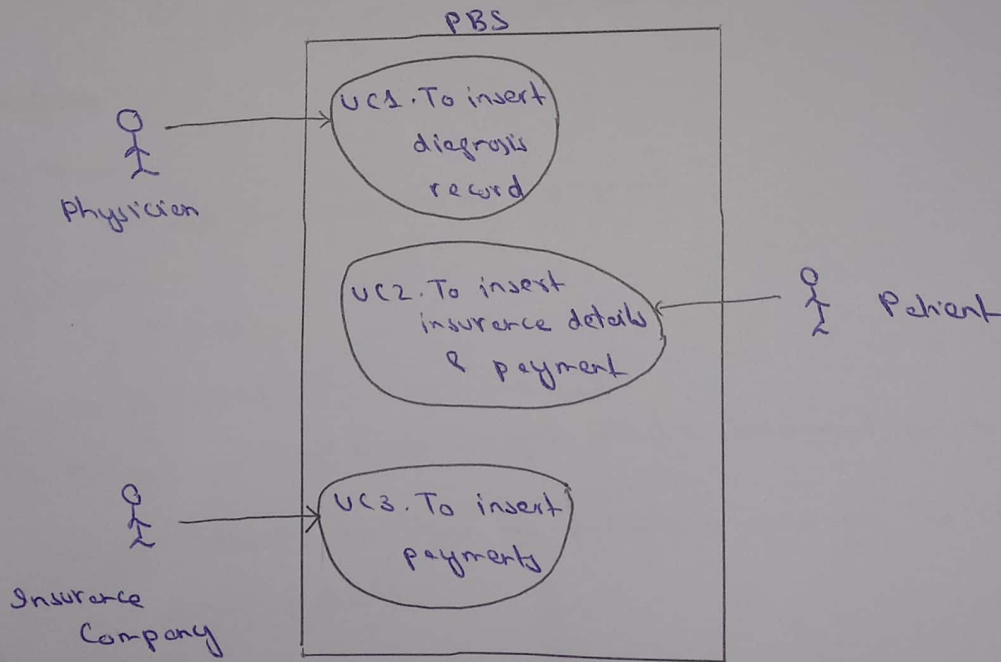
10. Open Issues:

Petrol security may occur as the system of petrol pump may fail.

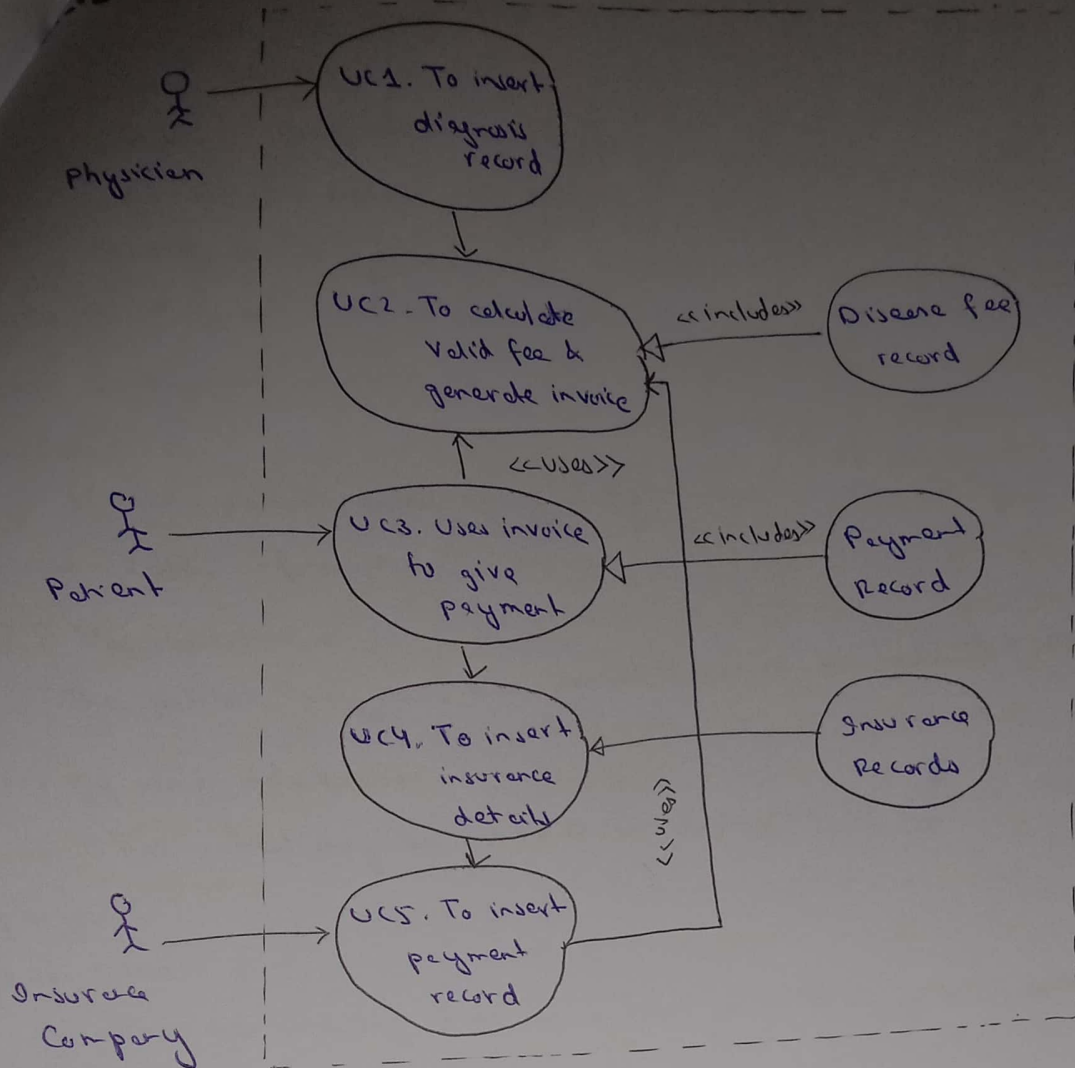
CASE STUDY 4:

Physician Billing System

High Level Use Case Diagram:



High Level Use Case Diagram:



Description:

1. Use Case Name:
Insert Insurance details & payment
2. Primary Actor:
Patient
3. Stake holder & Interest:
 Patient: Patient wants to get possible treatment with insurance he claim.
 System: Wants to treat his patients & manage the billing with insurance details of patients.
4. Pre Conditions:
 - The diagnosis record of the patient are entered.
 - The patient is associated with some insurance company.

Conditions:

- An invoice is given to patient.
- Patient has paid his bill.

Main Success Scenario:

1. Patient inserts insurance details.
2. Insurance details are verified.
3. Invoice is generated.
4. Payment is made by patient.
5. Payments are verified.

7. Extensions:

If the patient enters wrong details about insurance, they may be asked to enter the valid information.

8. Special Requirement:

The patient may have two insurance plans, so it should be dealt carefully.

9. Technology and data variation:

The patient may be asked to also enter the id allotted by insurance company.

10. Open Issue:

Insurance company may be a fraud or it may go towards bankruptcy.