# OIL TRANSACTION SYSTEM

## A PROJECT REPORT

## SUBMITTED FOR THE FULFILLMENT OF

## CS/SE 6360 – TERM PROJECT: FALL 2014

Submitted by:

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# CONTENTS:

# 1. THE DESIGN OF THE SYSTEM :

The oil transaction system is easy-to-use software designed to enable oil traders and clients to buy/sell oil. The clients and traders are provided with web portals where they can login and perform the transactions. A manager can overview all the activities of the clients,traders and the system.

Each client will be provided with a client id and an account id through which he can manage his personal details and oil account details respectively. Traders can login with the trader username and password provided. Manager's credentials are provided by the system administrator in the database.

Clients can check their profile, account history, make a transaction of selling or buying oil with his/her reserves with the help of a trader. A trader can make transactions and payments on behalf of the client. He can also check any client's history and can cancel any transaction that has been processed.

Clients can perform activities through a client system which validates each user based on their username and password. Traders are also validated through a similar trader system and this system is also used for validating manager.

Cients are classified as gold / silver customers based on their transaction history. If they make at least 30 transactions in any single month, they are considered as gold customer permanently. Otherwise they are considered as silver by default.

Ech transaction is uniquely provided with a transaction id by using which we can access it any time and the commission for the transaction can be paid in oil or cash which can be specified during the transaction. If paid in the form of cash, the commission amount is deducted from their account and paid to the trader at the time of transaction. Clients can choose to pay money for the buy transaction as otp or in installments.
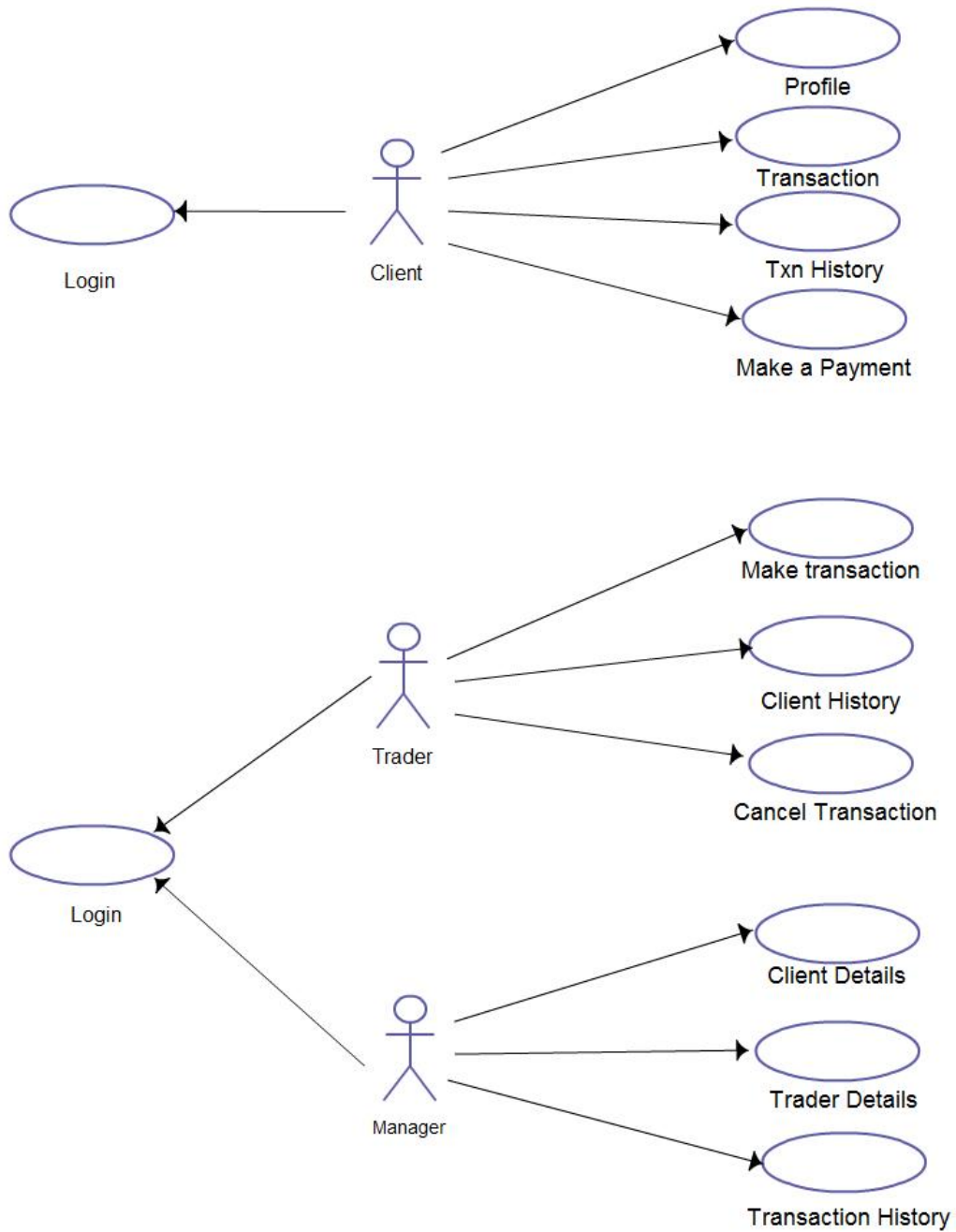
Clients can login to their portal and can make payments for the past transactions at any point of time.

# 2.SOFTWARE ARCHITECHTURE :

**Scope**

   this software architecture provides an architectural overview of the oil transaction system. The oil transaction system is being developed to support online oil transactions by oil traders.

**Use case**

**Profile:**

Users can register as a client through the registration page provided, which asks for personal details like name (first, last), e-mail, phone number, cell number and address, completion of which a client id is generated for each client uniquely. Once registered, client can go through login page using username and password which directs to the home page i.e., profile where he can get all the personal details provided and he can also get his account details which are oil reserves and cash reserves, trading history based on which he is classified as gold/silver customer. They can navigate to new transaction, previous transactions and make a payment page from the profile.

**New transaction:**

In this page, client can make a transaction which can be buy/sell transaction. In each case, client will be asked for the amount of oil he want to trade and the commission mode for the trader which will be mandatory for the transaction to be done. Here, if the trader has no reserves to pay the commission if chosen to pay in cash, then the transaction is not processed. Client can sell an amount of oil to the company or buy any amount of oil from the company as it is assumed that the company has unlimited resources of oil and cash. Whenever a transaction is processed, it is provided with a transaction id using which we can access it later to make any payment for that transaction or to get the details of the transaction for the trader to cancel it if he wants.

**Transaction history:**

This page is provided to make it easier for the client to check all the transactions they made in a period of time which he can specify. It shows the payment done and the payment left in the case of buy transaction and the quantity of oil in the case of sell transaction.

**Make a payment:**

Client can make a payment for the buying transaction he has done and for which the payment due is there. When a client enters this page, he is provided with all the transaction ids for which payment balance is there and then he can choose a trader to process the transaction after which he can provide the amount he want to pay and thus a payment is done for that transaction. A client can make any number of payments for a transaction.

**Make transaction:**

Traders can login through the login portal provided for them and will be redirected to the home page from where they can access the other pages. In the make transaction page, trader can make a transaction for a particular client on behalf of client. The trader who is doing the transaction is paid the commission for the transaction. The trader can choose all the information required to perform the transaction such as the type of transaction (buy/sell), quantity,

commission type and the payment. If any payment is done at the time of transaction, it is assumed that client pays to the trader directly.

**Client history:**

Any trader will be able to check a client's transaction history. In this page, trader is asked for the client id by using which trader can access all the information of the transactions of that particular client.

**Cancel transaction:**

The cancel transaction option is available for the traders only, through which trader can check for all the transactions he has done for the clients. He can choose one of those transactions he has done and can cancel any one of them. Cancellation of a transaction results in cancellation of all the payments done for the transaction and those will be returned to the client's account.

**Client details:**

The manager for the oil transaction system is provided with a username and password. Manager can login through the same portal as of traders but will be provided different access. Manager can check all the clients details and also their transaction details. To do this, he just have to know the client id of the client. He can check the personal details like name, address, phone number, e-mail and account details like oil reserves and cash reserves left in each client's account, payment dues and the total number of oil trades they have done.

**Trader details:**

The manager once logged in can access all the trader's details through trader details page. He will be provided with all the trader ids in a dropdown list through which manager has to choose a trader. This gives the trader's personal details like name, phone number, email id and account details like transactions processed, commissions received in oil and cash.

**Transaction history:**

In this transaction history page, manager can get all the transactions and payment details that have been processed till date. He can also choose to view the transaction between particular periods of time. For each transaction, transaction id, oil quantity, price, amount paid, amount left, trader id, client id commission type will be given. This helps the manager to get an overview of the company's business.

## 3. OVERVIEW OF THE CODE:

The software starts with home.html which provides the client and trader login along with client registration links. The client registration is done with help of registration.html, register.js and register.php. Client login is done with the help of test.php which takes the login credentials, validation is done at login.php, after which is redirected to profile.php page which has links to all other activities.

The profile is provided through test2.php page. Client can make a transaction by selecting the transaction.php which redirects to transact1.php where the quantity of oil he wants to trade, payment mode and amount is taken, a trader for the transaction is chosen from the available traders and validated with client's account reserves. The commission type and the oil reserves for oil commission is validated in transact2.php. If everything is processed successfully, the transaction is completed.

The client's history is available at history.php page. If a client want to make a payment for the transaction, he can go to payment.php, where he can choose a transaction to make payment and a trader to make the transaction. From there he will be redirected to payment1.php where he is shown the amount left in his account, and the amount he wants to pay is taken. Then the transaction is processed in payment2.php where a transaction id is provided for the transaction and he can logout through logout.php.

The trader can login at the trader.php and validated at tlogin.php and will be redirected to tprofile.php. He can go to trans_t.php to make a transaction, where he can choose buy/sell transaction for the client and will be redirected to trans_t1.php, where he can choose the amount of oil, type of commission. They can also check the history of clients with chistory.php and cancel a transaction with cancel.php.

# 4. APPENDIX

## I. ER Diagram:
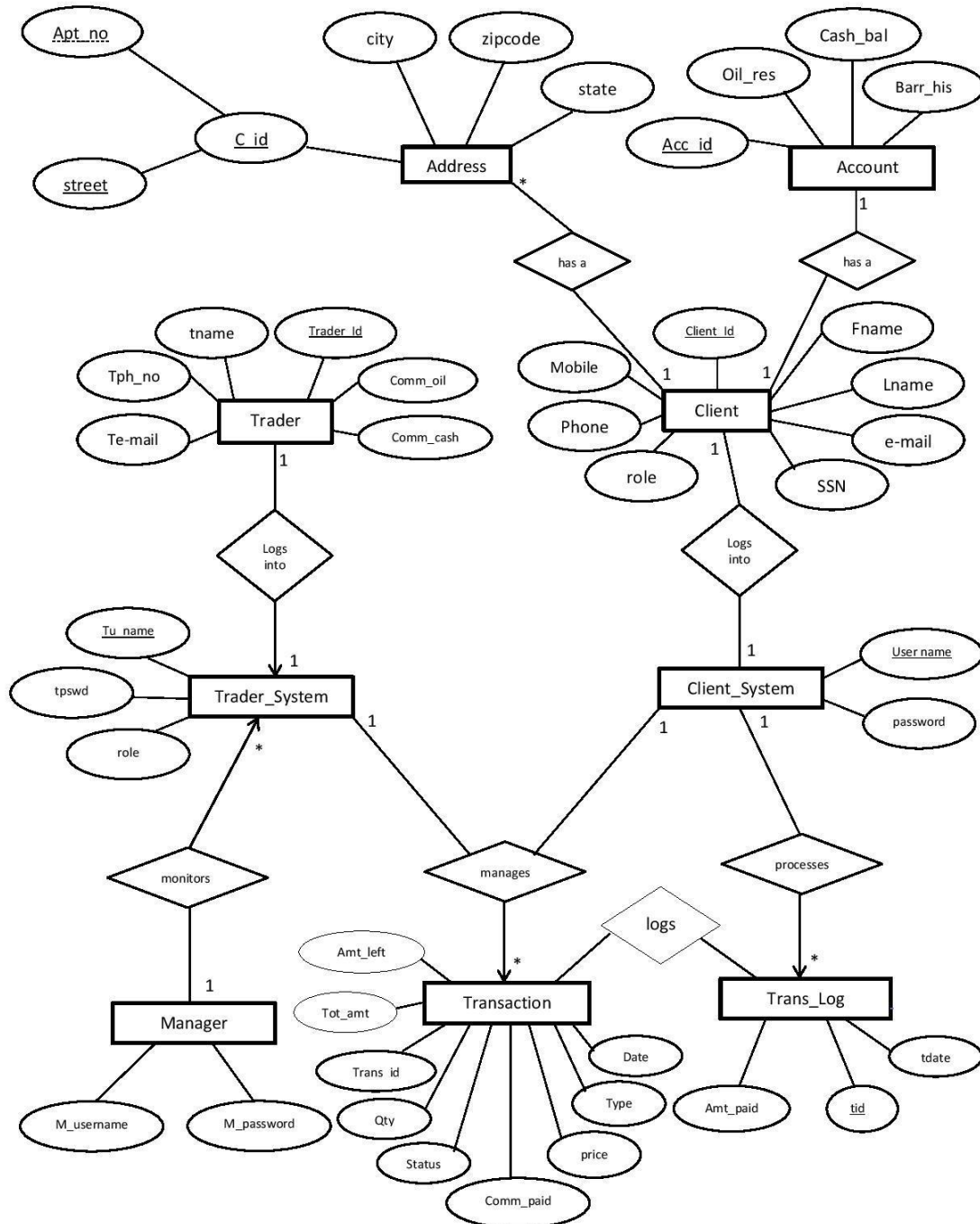
## II. Assumptions:

Assumptions for our project:

1) Traders can make transactions and payments on behalf of client.

2) Company has unlimited reserves.

3) When a client signs up, his oil reserves are assumed to be 75 barrels and his cash reserves to be 5000$.

4) Commission amout is 5% for Silver clients and 3.5% for gold clients.

5) Client must pay commission amount during the time of transaction but he can pay the transaction cost in installments.

6) If a client makes a transaction of 30 barrels or more in a single month, he is permanently classified as a gold user.

7) When client sells, we assume that he gets fully paid. And therefore we need not maintain any transaction log for those transactions.

8) Traders are added to our system by our company, they cannot register on their own.
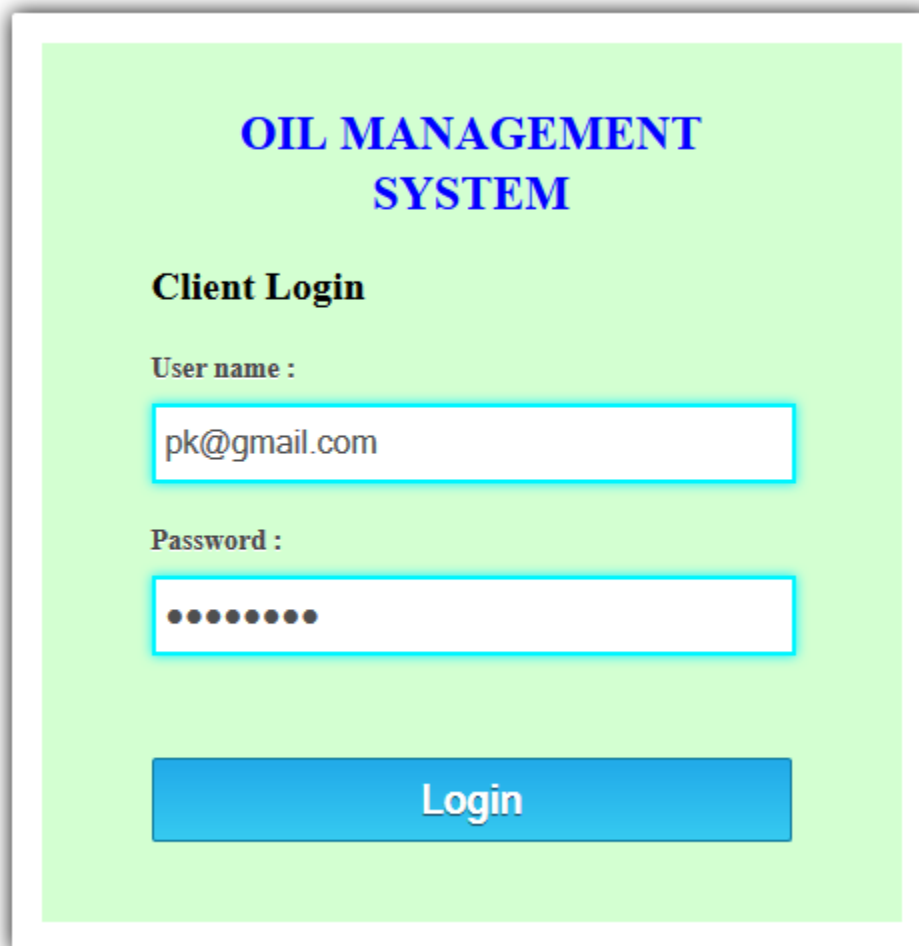
## III. Screenshots:

**Oil Management System**

Trader Login

Client Login

Click here to Register

**OIL MANAGEMENT SYSTEM**

### Client Login

User name :

pk@gmail.com

Password :

••••••••

Login

**Welcome :** 5162

| | | | | |
|---|---|---|---|---|
| Profile | Transaction | Txn History | Make a Payment | Logout |

# PROFILE

| | |
|---|---|
| **Client id:** | 5162 |
| **First Name:** | prasanna |
| **Last Name:** | Kotpalliwar |
| **Email:** | pk@gmail.com |
| **Phone Number:** | 4693531267 |
| **Cell Number:** | 4693531267 |
| **Current Status:** | Silver |
| **City:** | Dallas |
| **State:** | texas |
| **Account ID:** | 48807 |
| **Cash Reserves:** | 5948 |
| **Oil Reserves:** | 74.9 |
| **Barrel History:** | 0 |

Home          Logout

Please specify the type of transaction you want to make:

◉ Buy
◯ Sell

Enter the Quantity of Oil in Barrels:

Please choose the Trader to make a Transaction:

Yogesh ∨

Continue

## Transaction history:

| Transact_id | Trader_id | Oil_Qty | Total Amount | Status | Comm_type | Comm_paid | Transaction Date | Amount Paid | Amount Left | Transaction Type |
|---|---|---|---|---|---|---|---|---|---|---|
| 50062 | 1 | 2 | 160 | PROCESSED | CASH | 8 | 2014-11-29 | 70 | 90 | BUY |
| 50110 | 2 | 2 | 160 | PROCESSED | OIL | 0.1 | 2014-11-29 | NA | NA | SELL |
| 51008 | 1 | 5 | 400 | PROCESSED | CASH | 20 | 2014-11-29 | NA | NA | SELL |
| 66564 | 1 | 5 | 400 | PROCESSED | CASH | 20 | 2014-11-29 | 350 | 50 | BUY |
| 69688 | 2 | 10 | 800 | PROCESSED | CASH | 40 | 2014-11-29 | NA | NA | SELL |
| 70795 | 1 | 1 | 80 | PROCESSED | CASH | 4 | 2014-11-29 | NA | NA | SELL |
| 79244 | 1 | 5 | 400 | PROCESSED | CASH | 20 | 2014-11-29 | 0 | 400 | BUY |

## Make a Payment

Please Choose The Transaction id to make a Payment

50062 ⌄

Please Choose The Trader to Make a Transaction

Yogesh ⌄

**Continue**

*Thank You*