

INVENTORY CONTROL AT LAFRESCO

USER'S MANUAL

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Table of Contents

1. GENERAL INFORMATION	3
1.1. SYSTEM OVERVIEW	3
1.2. ACRONYMS AND ABBREVIATIONS	3
2. SYSTEM SUMMARY	4
2.1. SYSTEM CONFIGURATION	4
2.2. USER ACCESS LEVELS	4
3. GETTING STARTED	5
3.1. SETTING UP SQL SERVER MANAGEMENT STUDIO 2017	5
4. USING THE CLIENT APPLICATION.....	10
4.1. ADMIN LOGIN	10
4.2. GENERATE NEW BILL	10
4.3. MANAGE CUSTOMERS.....	11
4.4. MANAGE PRODUCTS	12
4.5. MANAGE USERS	12
4.6. TRANSACTIONS (TRANSACTION HISTORY)	13
4.7. PROFIT CALCULATIONS	14
4.8. STOCK OUT	14

1. GENERAL INFORMATION

1.1. System Overview

A case study at “La-fresco” (on-site general store management) cited issues regarding a basic resources requirement list that has to be maintained manually by the staff. To keep track of their inventory levels they have to calculate a list of the groceries utilized during a course of time, calculate and analyze the requirements for the future, and place their next order to the vendors if needed. This process takes up a lot of time and human effort and is also prone to human error. This poses a problem of a situation that the staff at “La-fresco ” as well as many other stores faces. It takes up a lot of time to manually keep track of sales and place correct orders to vendors, wasting useful labor in trivial works. A product which would assist in tackling the above-mentioned problems would prove to be fruitful to clients such as “La-fresco” inventory manager and similar enterprises as this product would help convert the unproductive time to something more useful, by removing the unnecessary error prone complications and efforts.

1.2. Acronyms and Abbreviations

Manager: The manager implies the manager of the store who handles all the administrative works.

Item: This is the entity that the customer buys.

Vendor: This is the store that provides the items with the required items.

Order: Order is the list of items and the quantities that is or is to be requested from the vendor.

2. SYSTEM SUMMARY

2.1. System Configuration

Each user uses their own computer running Windows OS. On those computers is the client application that will connect to a central database running Microsoft SQL Server Management Studio. Drivers for barcode scanner should be installed on the system.

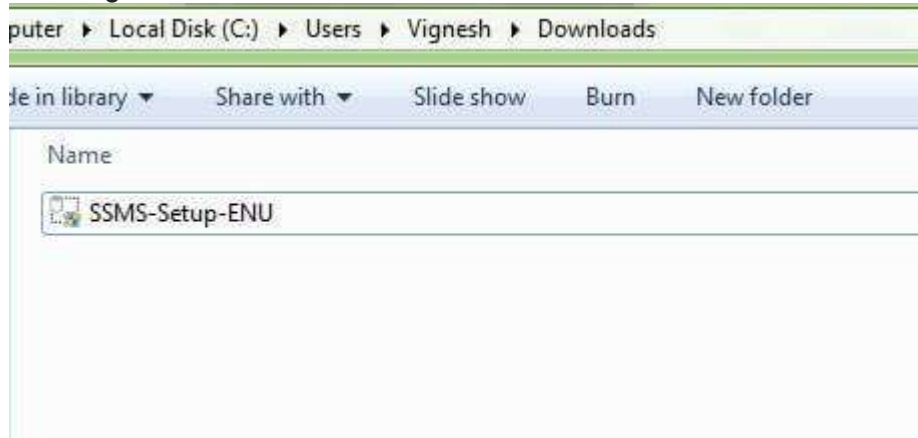
2.2. User Access Levels

There are two different types of users. Admin users have access to every functionality of the software and has authority to add, delete or modify any of the details related to customer as well as other users. All other users other than admin user have access only few functionalities. Every user other than admin is individual and can access functions only if corresponding function doesn't interfere with the other users.

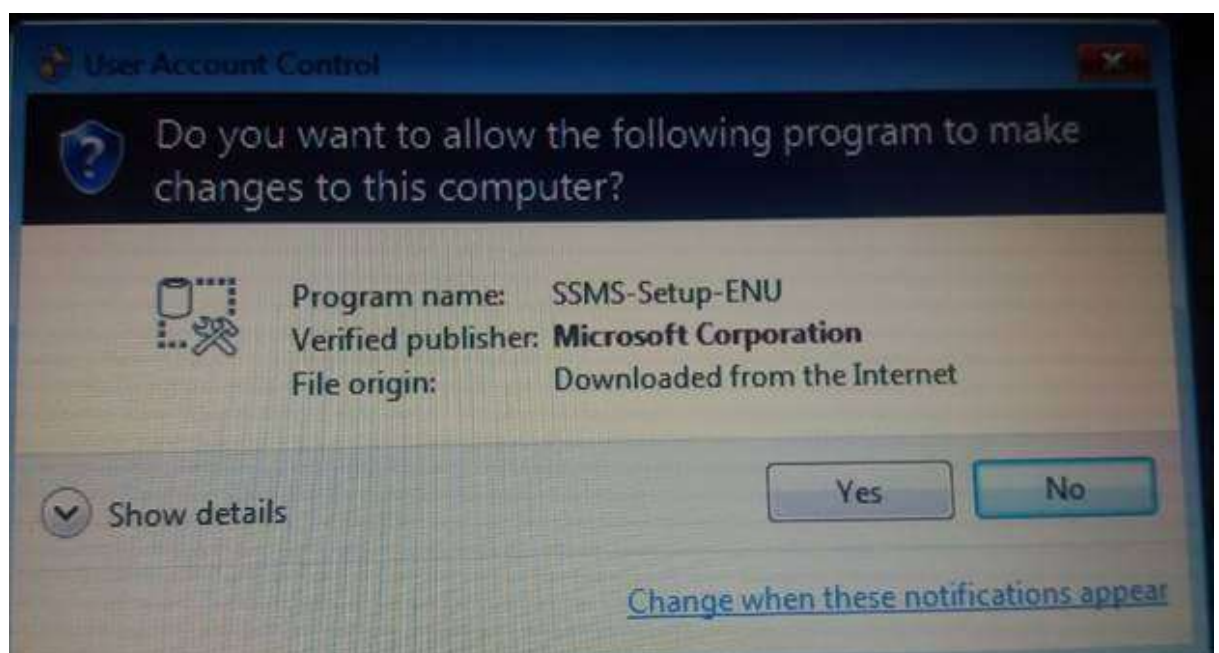
3. GETTING STARTED

3.1. Setting up SQL Server Management Studio 2017

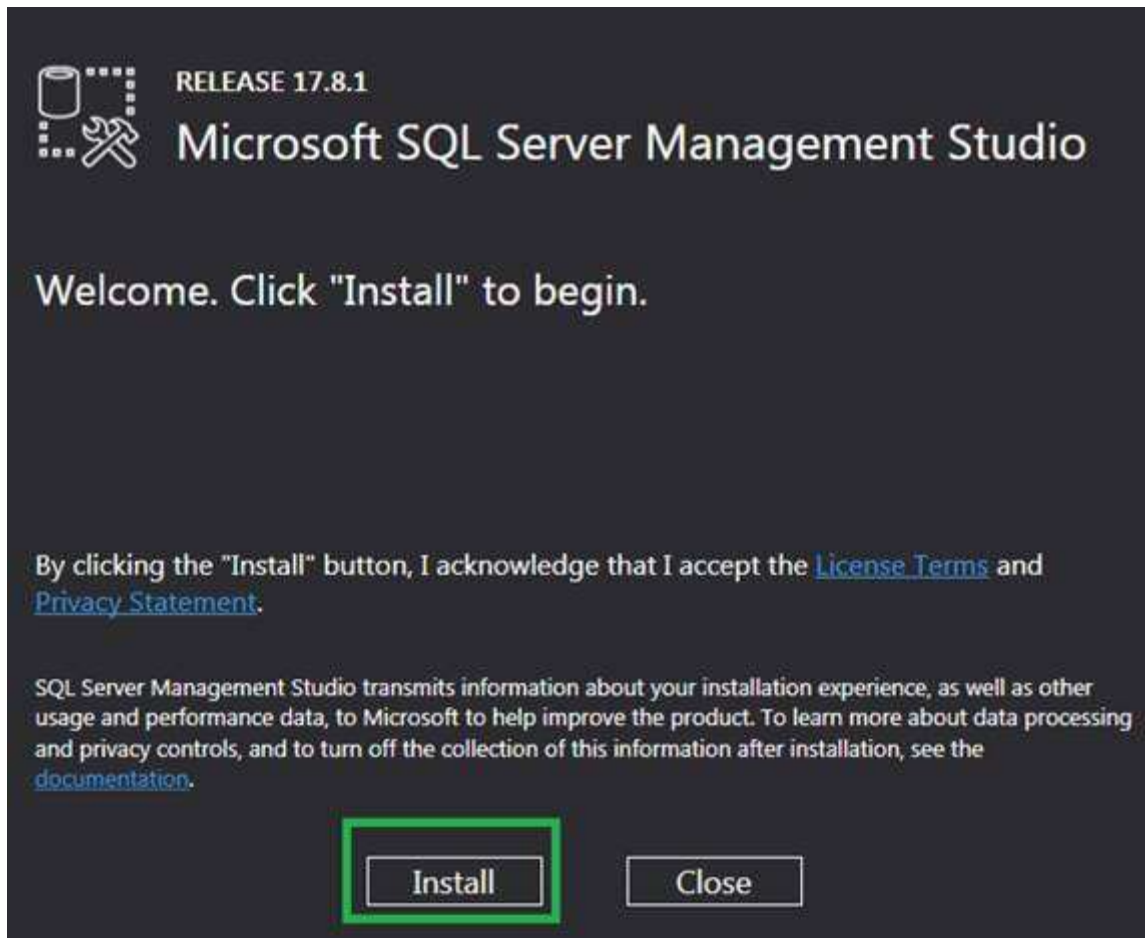
Go to your downloaded path and you will see the exe. Double click the exe for starting the installation.



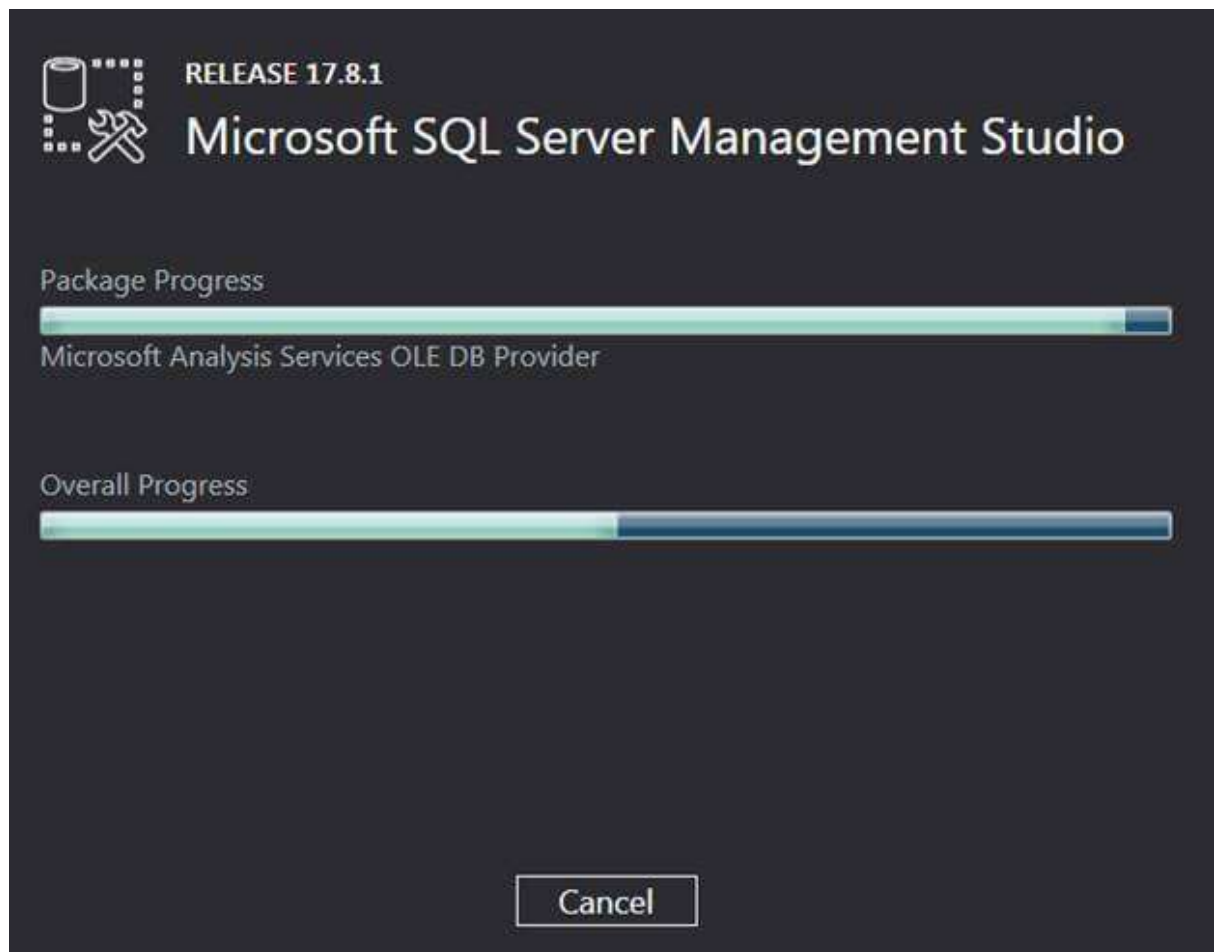
After double clicking, the system will ask the permission: “Do you want to allow the following to make a change this computer?”. Click yes to continue installing the SQL Server Management Studio 2017.



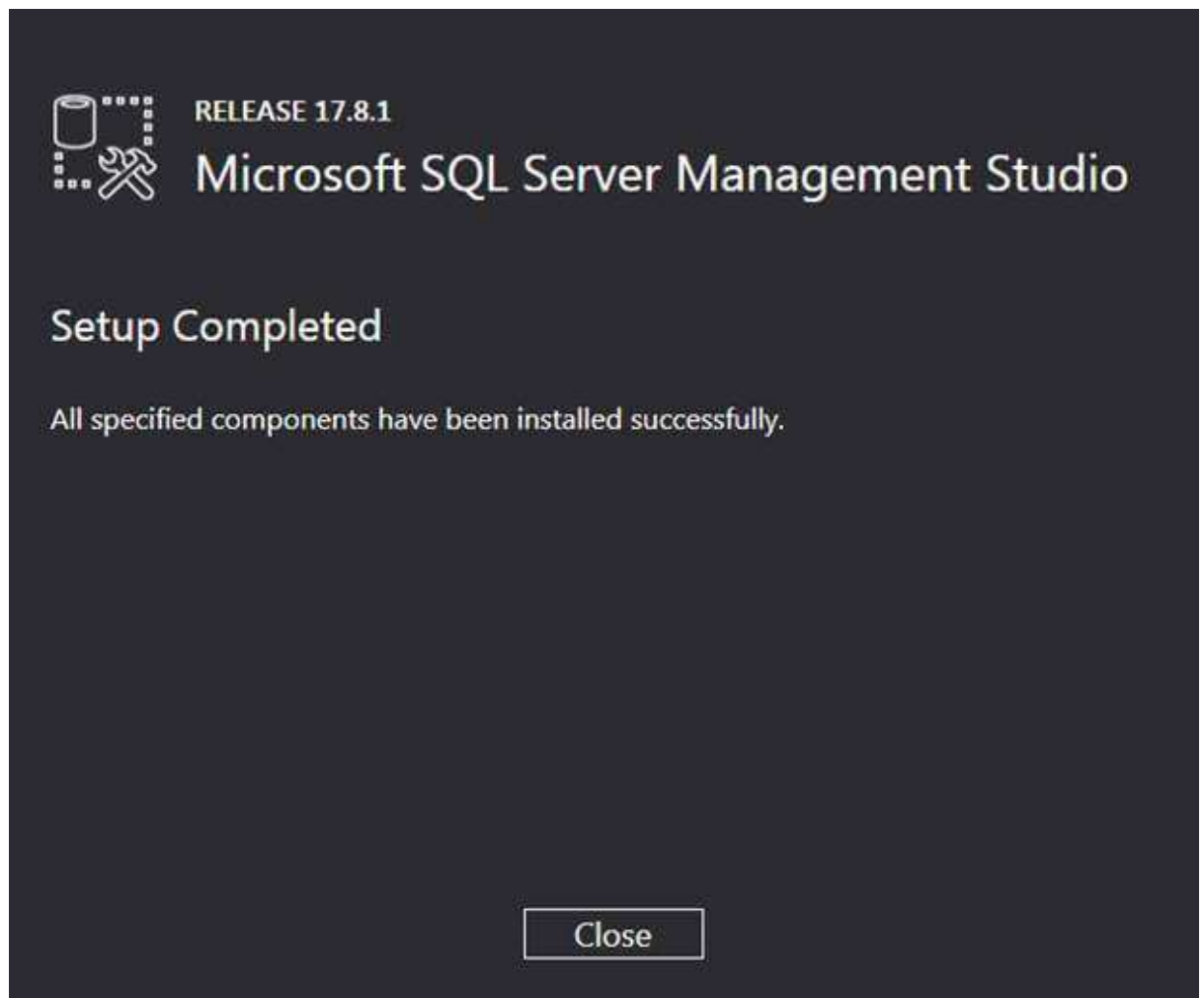
Installation window will be open after giving permission to install. Click the Install button, the install will start. After clicking, the install button will show as “Loading Packages Please Wait”



After loading packages progress bar will be shown. One is Package Progress and Overall Progress. We can see that it looks like the below screenshot.



Installation completed. After completing the installation, we can see it looks like the below screenshot. Now click the close button and restart your computer.



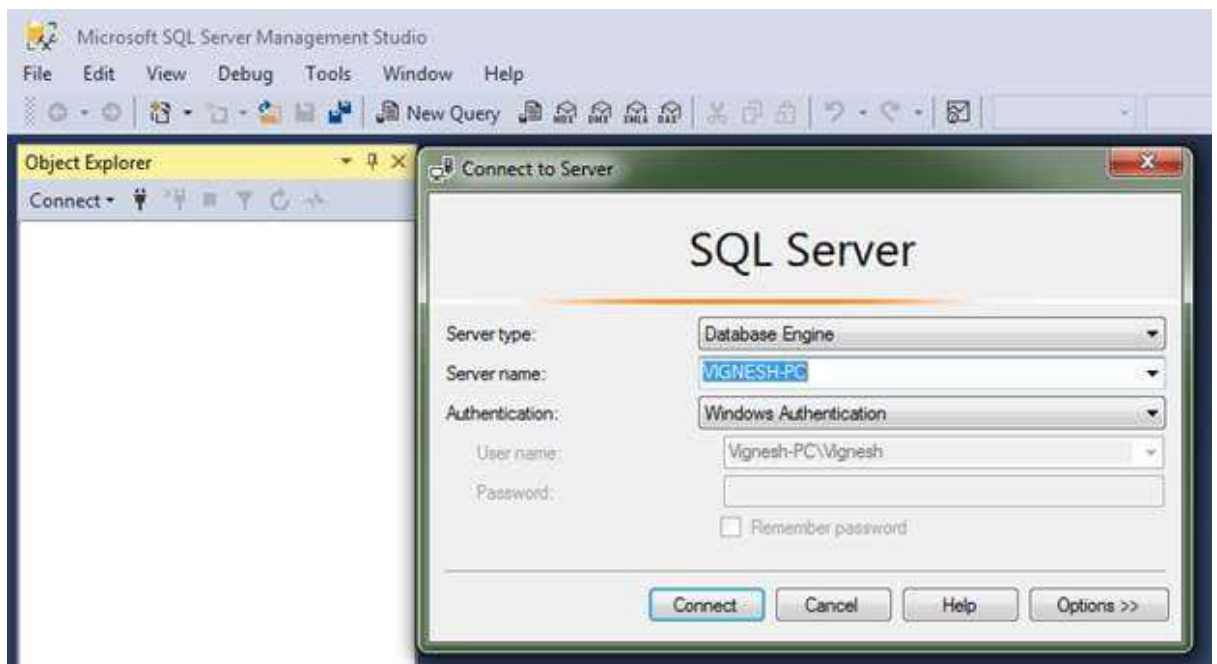
Go to all programs in your systems, we can see two folders one is Microsoft SQL Server 2017 and another one is Microsoft SQL Server Tool 2017. Under Microsoft SQL Server Tools 17 can see the Microsoft SQL Server Management Studio 17.



Double-click SQL Server Management Studio 17 and it will open looks like below screenshot. The opening the first time it will take a few minutes.



After opening SQL Server Management Studio 2017, we can see it looks like the below screenshot.



Now we can connect to the server and use the SQL Server Management Studio 2017.

4. USING THE CLIENT APPLICATION

4.1. Admin Login

This form asks for login credentials. Use below given credentials for the first-time login, after that those credentials can be edited according to admin's choice.

Username: masteradmin

Password: groupb

Clicking on submit button will log the admin in and opens the homepage of the software.

4.2. Generate new Bill

This section generates new bill for both Registered and unregistered customers.

It will look like the below given image:

The screenshot shows the 'GenerateBill' window of the 'La Fresco IIT Indore' application. The window has a menu bar with options: New Bill, Customer, Admin, Stock, Transactions, Stock out, Profit Calculation, and Help. The main content area is divided into several sections:

- Customer Type:** Two radio buttons are present: 'Unregistered Customer' (which is selected) and 'Registered Customer'.
- Customer Details:** Includes a 'Search:' text box and a large, empty rectangular area for a search result or image.
- Bill Details:** Shows 'Bill ID: 11' and 'Date and Time: 04 April 2019'.
- Product Details:** Contains a table for selecting products. The table has columns for 'id', 'name', and 'company name'. Two items are listed: '1' (Maggi, Nestle) and '2' (Pencil, Nataraj). Below the table are 'Quantity' input fields and buttons for 'Add to cart >>' and '<< Remove Selected Item'. A 'Clear' button is also present.
- Bill Summary:** Shows 'Total Amount: 0' and 'Discount: 0'.
- Payable Amount:** Shows '₹ 0'.
- Other Elements:** A 'Thumb Impression' section with a fingerprint icon, a 'Wallet Balance' section showing '₹ 00.00', and a 'Confirm' button.

A. Selecting Customer:

If customer is unregistered, then customer's name can be entered in the name field else the name of the customer can be searched. Clicking the row header besides the name of the found customer will fill up the fields like name, ID, contact and wallet balance.

B. Product Details:

Here, products can be searched by name and/or company name. To add a product, users need to select that product by clicking on the row header and clicking on the "Add to cart" button will add that product to the cart. User can also change the quantity of selected item before adding to cart. Other products will also be added in the same way. The selected items(cart) will be shown in the rightmost table. Added products can also be removed from the

cart by selecting row header of that item and clicking on “Remove from cart” button. Clicking on “clear” button clears the whole cart.

C. Bill Summary:

This section deals with the total amount, discount and net payable amount.

- i) **Total amount:** The total price of all the selected items (items in the rightmost table). This can be modified by user if he wants.
- ii) **Discount:** Discount will be entered by the user in percent. Depending on whether the selected customer is “Member” or “Non-member” (which will be specified just above the cart by a label), the user can set discounts manually.
- iii) **Payable amount:** Net payable amount after considering the discount will be showed here. Any changes in the total amount and discount will be reflected here immediately.

Once all products and selected and discount is entered, user will need to click on “Confirm” button. Clicking the button will ask you for final confirmation. Clicking “Yes” on the dialog will initiate the transaction.

On successful completion of transaction (transaction will fail if the wallet balance is insufficient, showing a message for the same), the Wallet balance, Stock etc. will be updated and a pdf file of that bill would be created and displayed on the screen, giving the user an option to print that bill.

4.3. Manage Customers

This form is used for adding customers, modifying customer details that were added and to delete the customer details.

The form will look like the image below:

id	name	email	contact	rollno	balance	type	thumb_imp
1	Ravi	ravi@gmail.com	8318577800	170001039	4906.399902343	Non-Member	
2	Vinayak	vin@gmail.com	9415687999	170004040	9702.400390625	Member	
3	Prudhvi	pr@gmail.com	1234567890	170001032	6940	Non-Member	
4	Deepakdep@gn...	dep@gmail.com	9876543210	170001018	12000	Non-Member	
5	Najma	najma@gmail.com	8329620181	170005020	978.4000244140	Member	

The user can also view the customer info by searching his name in the search box and then clicking the row header. Clicking on the row header will fill up

these details. After that he also can change the details of the customer. The add button adds the customer into the database by which he become a registered customer. The update button is used to update the details. Similarly, the customer can be deleted.

4.4. Manage Products

This form is for adding product details, updating the product details that were added, deleting a product.

The form will look like the image below:

The screenshot shows a web application window titled 'La Fresco IT Indore' with a menu bar containing 'New Bill', 'Customer', 'Admin', 'Stock', 'Transactions', 'Stock out', 'Profit Calculation', and 'Help'. The main content area displays a 'ManageProducts' form. The form has input fields for 'Id', 'Full Name', 'Company', 'Amount', 'Quantity', 'Cost Price', 'M.R.P.', 'Barcode', 'MFG Date' (set to 29 March 2019), and 'Expiry Date' (set to 04 April 2019). To the right of these fields is a table with columns: 'id', 'name', 'companyname', 'package', 'quantity_available', and 'cost_price'. The table contains two rows: Row 1 (id: 1, name: Maggie, companyname: Nestle, package: 100gm, quantity_available: 37, cost_price: 8) and Row 2 (id: 2, name: Pencil, companyname: Natara, package: 10 units, quantity_available: 19, cost_price: 10). Below the table are three buttons: 'ADD' (green), 'MODIFY' (blue), and 'DELETE' (red).

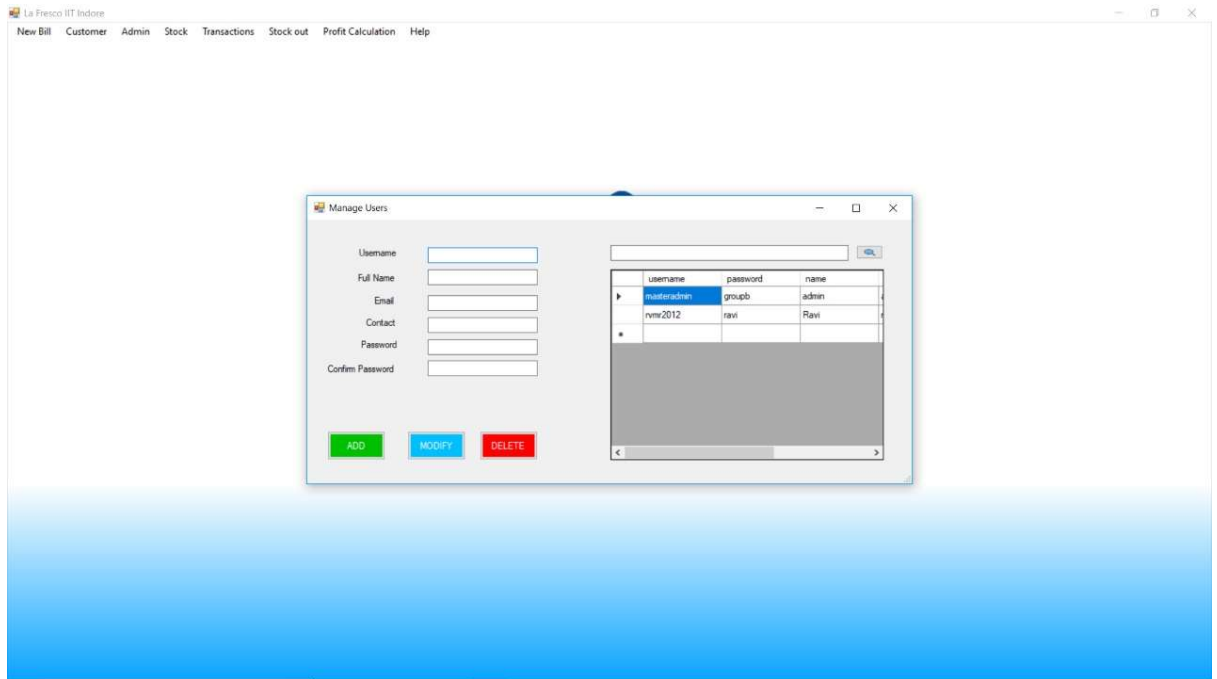
id	name	companyname	package	quantity_available	cost_price
1	Maggie	Nestle	100gm	37	8
2	Pencil	Natara	10 units	19	10

The user can add the product through add button after entering the product details. If in case new stock comes, he can update the quantity of the product through update button. Like this he can update any other detail. If the product seemed useless, he can delete the product. This is done by delete button. Similar to customer details the user can search a product by name and view the details of it. The can update or delete a product by clicking the row header and following the appropriate steps. Clicking on the row header will fill up these details.

4.5. Manage Users

This form is used for adding customers, modifying customer details that were added and to delete the customer details.

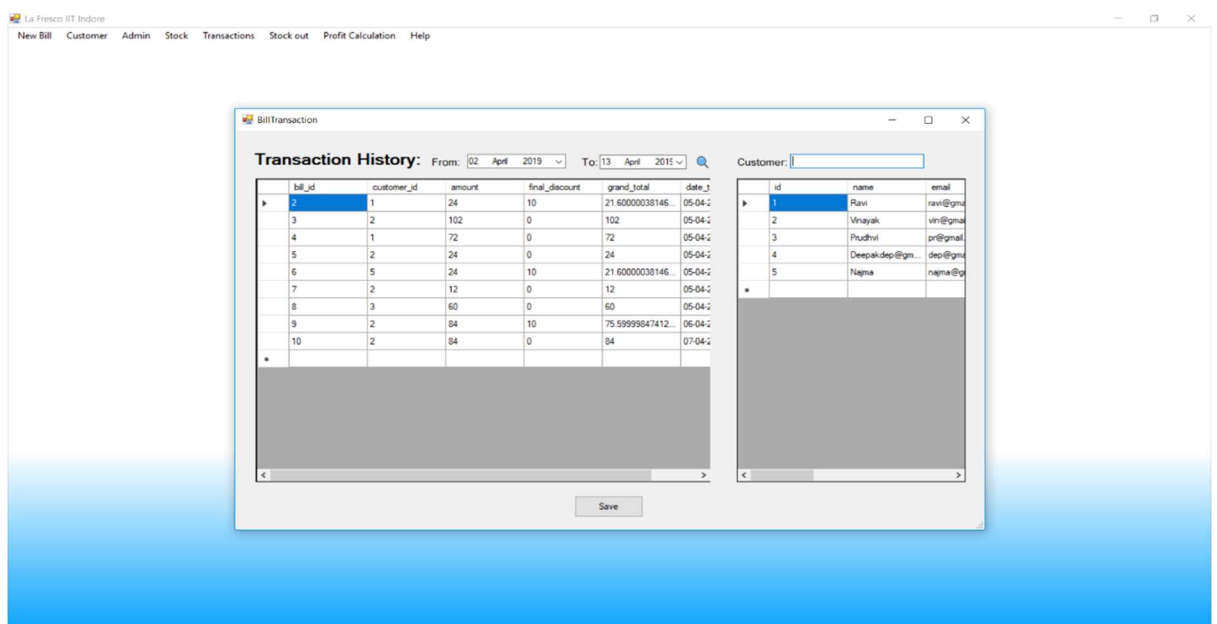
The form will look like the image below:



The user can also view the customer info by searching his name in the search box and then clicking the row header. Clicking on the row header will fill up these details. After that he also can change the details of the customer. The add button adds the customer into the database by which he become a registered customer. The update button is used to update the details. Similarly, the customer can be deleted.

4.6. Transactions (Transaction History)

This section deals with the records/history of all transactions done till that moment. Below is an image of how it looks:



- a) Finding all bills between given dates: A calendar will popup when the dropdown button just right to the “From” and “To” labels, facilitating the user to select the desired dates. Clicking on search image will show the list of all the transactions. Clicking on the “Save” button will save a pdf and jpg copy files with details of that bill, giving user an option to print that bill.
- b) Finding all bills of a particular customer: After selecting the “From” and “To” dates and clicking on the “Search” button, search for the name of the desired customer. Clicking on the row header of one of the found user, will filter out all transactions of that particular user. The user can again “Save” and print a particular bill is the same way.

4.7. Profit Calculation

In this section the user can calculate the profit he gets from one date to another date. The user first chooses his starting date and ending date, then the corresponding profit he gained will be showed on the profit box provided.

The form will look like the image below:

The screenshot shows the 'Profit Calculation' window. At the top, there are date pickers for 'From' (02 April 2019) and 'To' (06 April 2019). Below these is a search icon. The main area contains a table with the following data:

bill_id	customer_id	amount	final_discount	grand_total	date_time	bill_id1	product_id
2	1	24	10	21.60000038146...	05-04-2019 03:40	2	1
3	2	102	0	102	05-04-2019 03:51	3	1
3	2	102	0	102	05-04-2019 03:51	3	2
4	1	72	0	72	05-04-2019 21:50	4	1
4	1	72	0	72	05-04-2019 21:50	4	2
5	2	24	0	24	05-04-2019 21:52	5	1
6	5	24	10	21.60000038146...	05-04-2019 22:01	6	1
7	2	12	0	12	05-04-2019 22:05	7	1
8	3	60	0	60	05-04-2019 22:06	8	2
9	2	84	10	75.59999847412...	06-04-2019 01:48	9	1
9	2	84	10	75.59999847412...	06-04-2019 01:48	9	2
10	2	84	0	84	07-04-2019 01:02	10	1
10	2	84	0	84	07-04-2019 01:02	10	2

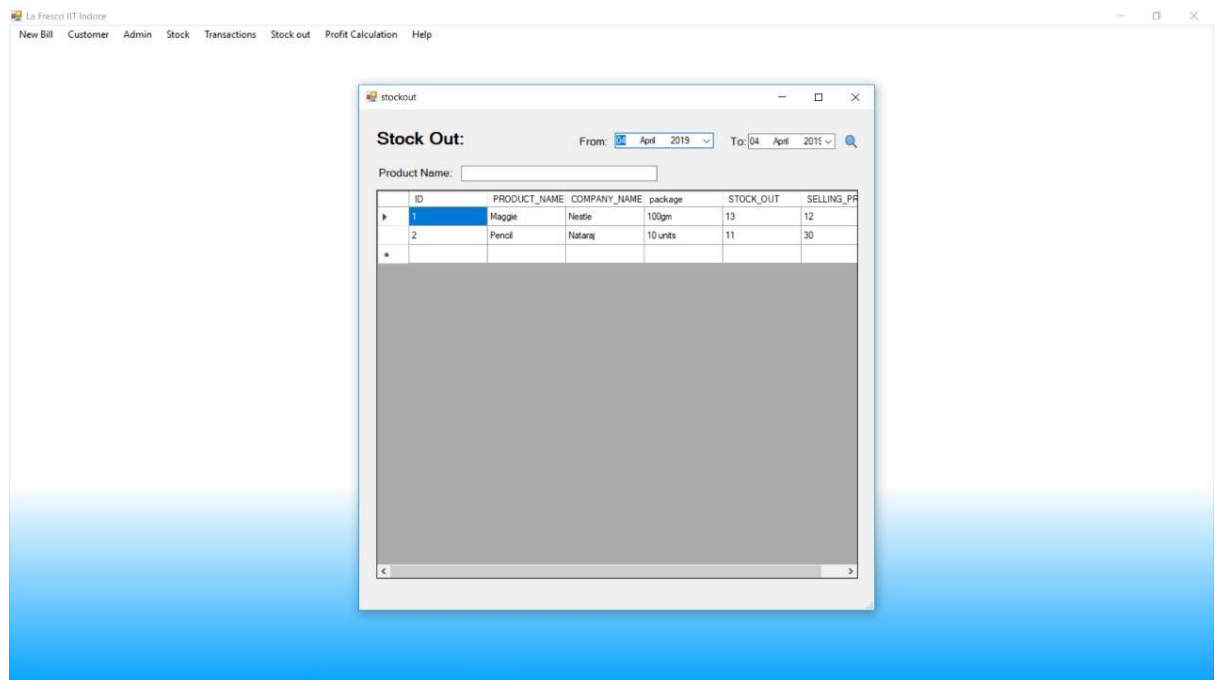
At the bottom, there are input fields for 'Net Purchase Cost' (₹214) and 'Net Selling Cost' (₹472.8). To the right, the 'Profit' is shown as ₹258.8, which is 120%.

The profit percentage also will be provided. Also, other than these he can check which product is sold between these two dates which will be showed in the data grid.

4.8. Stock Out

This section deals with the all the products that were sold during the provided input dates.

The form will look like the image below:



- a) Finding all products between given dates: A calendar will popup when the dropdown button just right to the “From” and “To” labels. Facilitating the user to select the desired dates. Clicking on search image will show the list of all product that were sold during these dates.
- b) Finding the transactions of a particular product: After selecting the “From” and “To” dates and clicking on the “Search” button, search for the name of the desired product. Clicking on the one of the desired products will show the transactions of the products that were sold.