



Fuel Management System

(Computer Express, South Africa)

Industry: Oil and Gas

Platform: Windows PC/Laptop

Tech Stack:

- ASP.NET, WPF, Prism, C#, SQL

Project Overview:

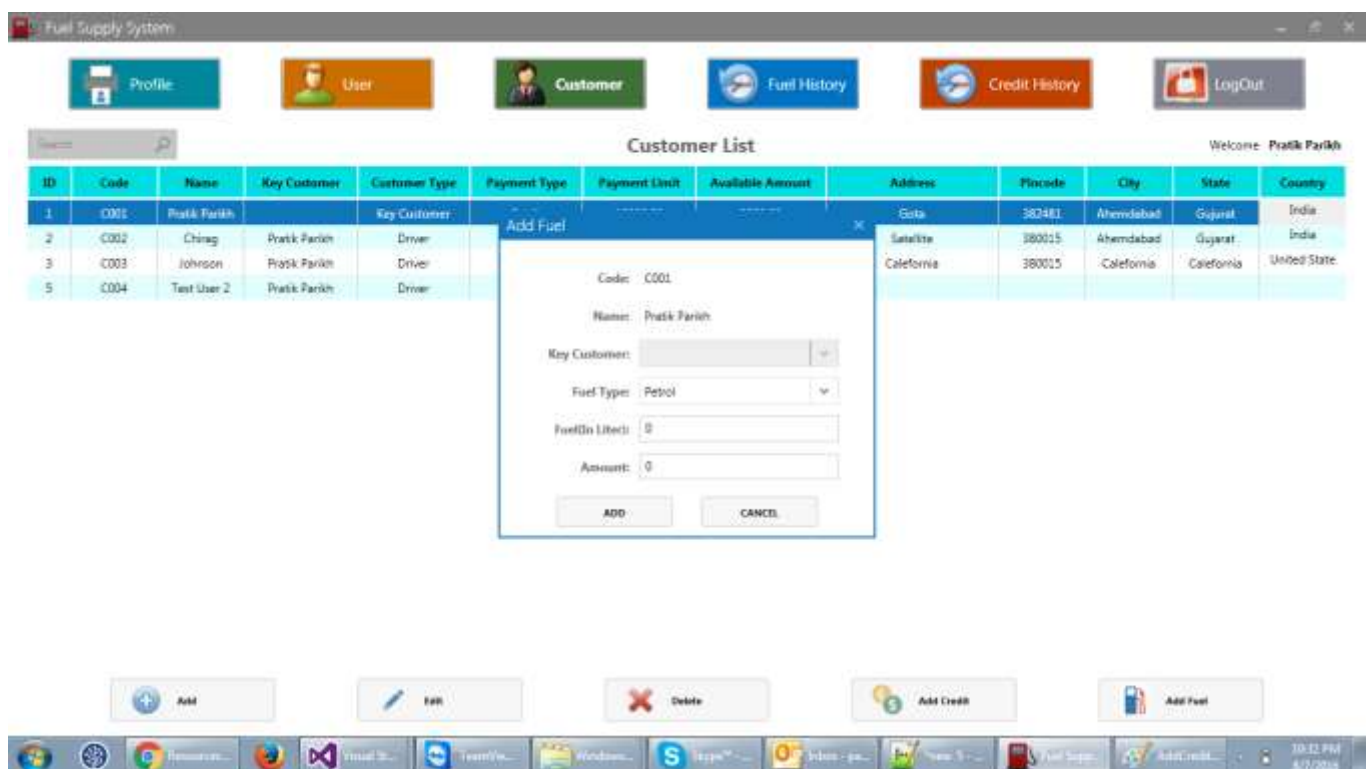
Fuel Management System is a biometric based solution empowering transparency between fuel pump owners and their business clients. South Africa based Fuel Distribution business owner approached us to build a system which mandates biometric verification for business clients to get the fuel. The project aimed at increasing the transparency between the Fuel stations owner and business clients.

ID	Code	Name	Key Customer	Customer Type	Payment Type	Payment Limit	Available Amount	Address	Pincode	City	State	Country
1	C001	Pratik Parikh	Pratik Parikh	Key Customer	Credit	10000.00	8000.00	Gsta	380481	Ahmedabad	Gujarat	India
2	C002	Ching	Pratik Parikh	Driver	Cash	5000.00	5000.00	Satellite	380015	Ahmedabad	Gujarat	India
3	C003	Johnson	Pratik Parikh	Driver	Credit	18000.00	14550.00	California	380015	California	California	United State
5	C004	Test User 2	Pratik Parikh	Driver	Cash	20000.00	12200.00					



Challenges / Problem Statement:

- Business clients had multiple vehicles and drivers which got fuel from the station. As the transaction was completely manual, it often resulted in discrepancies while matching end calculations with business clients.
- When worked in a credit mode, it was difficult for the drivers to know real time credit available.
- In the manual process it was difficult to verify if the driver asking for fuel is really from that business clients or not.



Solution:

- Fuel Management System allowed enrolment of business clients and their drivers in the system. Drivers will be enrolled and verified by scanning their finger prints. Fuel was given to only verified drivers, removing the ambiguity about whether the drivers is related to specific business client or not.
- Fuel was given only after verification of driver and confirmation of driver, making the transactions completely transparent. This made the process and business relations with the clients smooth.
- Fuel was given only after seeing the current available credit limit for the specific business client. This made sure that no transaction was going over and above the credit limit.



Types of Users

- Fuel Station Owner – Admin
- Fuel Station Employee - Operator

Key Features

Fuel Station Owner - Admin

- Manage (add / edit / delete) employees (operators)
- Manage (add / edit / delete) key customers
- Manage (add / edit / delete) drivers of key customers
- Search and sort functionality for employees (operators)
- Associate driver profiles with key customers
- Update credit / cash balance
- Reports based on key customers and drivers

Customer List

ID	Code	Name	Key Customer	Customer Type	Payment Type	Payment Limit	Available Amount	Address	Pincode	City	State	Country
1	C001	Pratik Parikh	Pratik Parikh	Key Customer	Credit	10000.00	8000.00	Gota	382481	Ahmedabad	Gujarat	India
2	C002	Chingap	Pratik Parikh	Driver	Cash	5000.00	5000.00	Satellite	380015	Ahmedabad	Gujarat	India
3	C003	Johnson	Pratik Parikh	Driver	Credit	18000.00	14550.00	California	380015	California	California	United State
5	C004	Test User 2	Pratik Parikh	Driver	Cash	20000.00	12200.00					

Case Study

Fuel Management System



Fuel Station Employee - Operator

- Login using pin code
- Verification of drivers using figure print
- View the available credit limit for the verified driver
- Add / edit fuel supplied detail (fuel type, fuel volume, fuel price)
- Verification of fuel purchase by driver using finger print or PIN code

The screenshot displays the 'Fuel Supply System' application window. At the top, there is a navigation bar with buttons for Profile, User, Customer, Fuel History, Credit History (which is highlighted), and LogOut. Below the navigation bar, the 'Credit History' section is active, showing a 'Welcome: Pratik Parikh' message. The interface includes filters for 'History By: Key Customer', 'Key Customers: ---All---', 'Start Date: 6/8/2016', and 'End Date: 8/7/2016', with an 'APPLY' button. A table displays the credit history data:

ID	User Name	Customer Name	Key Customer	Payment Type	CreditAmount	Date
1	Pratik Parikh	Test User 2	Pratik Parikh	Cash	2000.00	7/13/2016 9:44:13 PM
2	Pratik Parikh	Johnson	Pratik Parikh	Credit	1000.00	7/13/2016 9:48:27 PM
3	Pratik Parikh	Test User 2	Pratik Parikh	Cash	5000.00	7/13/2016 9:48:36 PM

Below the table, there are four buttons for exporting data: 'Export To Excel', 'Export To Word', 'Export To CSV', and 'Export To PDF'. The Windows taskbar at the bottom shows various open applications and the system clock indicating 10:25 PM on 8/7/2016.