

Fuel Management System

1.INTRODUCTION

1.1 ABSTRACT

This project entitled "**HARSHISH FUELS MANAGEMENT**" is proposed the activities of Petrol pump foundation in Ittamozihi. This Project Fuel Management system use to maintain their sales detail, employee detail and density calculation. They used to keep the record of petrol and diesel sold, inventory, customer, etc. The management of the petrol pump is done by the manager manually which is a difficult process. The Project deals with the development of the computerized system for maintaining the regular records.

In this application software, activities in the petrol bunk are manipulated systematically. In the existing system all the activities and record maintenance of the petrol bunk are done manually by the manager. By this software admin can add the quantity of petrol which is imported in that particular month and sales details of the petrol based on daily, monthly and yearly wise and there is record maintenance about the wastage of the impurities during the refining process.

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2. SYSTEM REQUIREMENTS

2.1 HARDWARE SPECIFICATION

- ❖ Processor: AMD PRO A4
- ❖ RAM: 4.00GB
- ❖ Hard Disk: 100GB
- ❖ Network: Internet
- ❖ Platform: Windows 10 pro
- ❖ System type: 64-bit operating system

2.2 SOFTWARE SPECIFICATION

- ❖ Web based Technology: Html and Php
- ❖ Scripting Language: PHP
- ❖ Database (Back End): MySQL database

2.3 ABOUT THE SOFTWARE

HTML

- The Hyper Text Markup Language or HTML is the standard markup language for documents designed to be displayed in a web browser.
- HTML is a markup language that web browsers use to interpret and compose text, images, and other material into visual or audible web pages.
- It can be assisted by technologies such as Cascading Style Sheets (CSS) and scripting languages such as JavaScript.
- Web browsers receive HTML documents from a web server or from local storage and render the documents into multimedia web pages.
- HTML describes the structure of a web page semantically and originally included cues for the appearance of the document.
- HTML elements are the building blocks of HTML pages.
- With HTML constructs, images and other objects such as interactive forms may be embedded into the rendered page.
- HTML provides a means to create structured documents by denoting structural semantics for text such as headings, paragraphs, lists, links, quotes and other items.
- HTML elements are delineated by tags, written using angle brackets.
- Tags such as `` and `<input />` directly introduce content into the page.
- Other tags such as `<p>` surround and provide information about document text and may include other tags as sub-elements.
- Browsers do not display the HTML tags but use them to interpret the content of the page.
- HTML can embed programs written in a scripting language such as JavaScript, which affects the behavior and content of web pages.
- Inclusion of CSS defines the look and layout of content.
- The World Wide Web Consortium (W3C), former maintainer of the HTML and current maintainer of the CSS standards, has encouraged the use of CSS over explicit presentational HTML since 1997.
- A form of HTML, known as HTML5, is used to display video and audio, primarily using the `<canvas>` element, in collaboration with javascript.

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PHP

- The PHP is a general-purpose scripting language geared toward web development. It was originally created by Danish-Canadian programmer Rasmus Lerdorf in 1994.
- The PHP reference implementation is now produced by The PHP Group.
- PHP stands for the recursive initialism PHP: Hypertext Preprocessor. PHP code is usually processed on a web server by a PHP interpreter implemented as a module, a daemon or as a Common Gateway Interface (CGI) executable.
- On a web server, the result of the interpreted and executed PHP code which may be any type of data, such as generated HTML or binary image data would form the whole or part of an HTTP response.
- Various web template systems, web content management systems, and web frameworks exist which can be employed to orchestrate or facilitate the generation of that response.
- Additionally, PHP can be used for many programming tasks outside the web context, such as standalone graphical applications and robotic drone control. PHP code can also be directly executed from the command line.
- The standard PHP interpreter, powered by the Zend Engine, is free software released under the PHP License.
- PHP has been widely ported and can be deployed on most web servers on a variety of operating systems and platforms.

CSS

- Cascading Style Sheets (CSS) is a style sheet language used for describing the presentation of a document written in a markup language such as HTML or XML (including XML dialects such as SVG, MathML or XHTML).
- CSS is a cornerstone technology of the World Wide Web, alongside HTML and JavaScript.
- CSS is designed to enable the separation of presentation and content, including layout, colors, and fonts.
- This separation can improve content accessibility; provide more flexibility and control in the specification of presentation characteristics; enable multiple web pages to share formatting by specifying the relevant CSS in a separate .css file, which reduces complexity and repetition in the structural content.
- It enables the .css file to be cached to improve the page load speed between the pages that share the file and its formatting.

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JAVASCRIPT

- JavaScript often abbreviated as JS, is a programming language that is one of the core technologies of the World Wide Web, alongside HTML and CSS.
- JavaScript was first known as LiveScript, but Netscape changed its name to JavaScript, possibly because of the excitement being generated by Java.
- JavaScript made its first appearance in Netscape 2.0 in 1995 with the name LiveScript.
- The general-purpose core of the language has been embedded in Netscape, Internet Explorer, and other web browsers.
- The first web browser with a graphical user interface, Mosaic, was released in 1993. Accessible to non-technical people, it played a prominent role in the rapid growth of the nascent World Wide Web.
- As of 2022, 98% of websites use JavaScript on the client side for webpage behavior, often incorporating third-party libraries.
- All major web browsers have a dedicated JavaScript engine to execute the code on users' devices.
- JavaScript is a high-level, often just-in-time compiled language that conforms to the ECMAScript standard.
- It has dynamic typing, prototype-based object-orientation, and first-class functions. It is multi-paradigm, supporting event-driven, functional, and imperative programming styles.

MySQL

- MySQL is open-source relational database management system (RDBMS).
- A database is a separate application that stores a collection of data. Each database has one or more distinct APIs for creating, accessing, managing, searching and replicating the data it holds.
- Other kinds of data stores can also be used, such as files on the file system or large hash tables in memory but data fetching and writing would not be so fast and easy with those type of systems.
- Nowadays, we use relational database management systems (RDBMS) to store and manage huge volume of data. This is called relational database because all the data is stored into different tables and relations are established using primary keys or other keys known as Foreign Keys.

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3. SYSTEM ANALYSIS

3.1 EXISTING SYSTEM

Harshish Fuel currently use a manual system for the management and maintenance of critical information. Mentioned above most of details are maintained manually. Due to this the data retrieved is time consuming. Due to human calculation errors occur.

Drawbacks of the existing system can be concluded as follows

- ♣ The existing system is time consuming and not very user friendly.
- ♣ In existing system, there is record maintenance about the daily work allotment and work status details.

3.2 PROPOSED SYSTEM

The proposed system is computerized and has been developed using advance language therefore it gives more facilities than present system. It provides quick access to any data. In this system user have to enter the data only once and then it gets linked with all files. This reduces the workload of staff and it is also a time saving process. The system maintains all records easy.

Advantages of the proposed system

- ♣ Quick and efficient way of communication between the admin, staff and the users.
- ♣ All the information about sale, purchase, stock will be a maintain properly in this system.
- ♣ All manual calculation of sale or all the money management will be performed by the computer automatically. This system will provide timely report information.
- ♣ The computer can hold amount of data in its storage device.
- ♣ The operation and speed of the computer is very high.
- ♣ We can calculate result and print any report within the seconds.
- ♣ Any difficulties we can solve easily.
- ♣ A database application can be stored in computer effectively.
- ♣ Proposed system is easiest way using and user friendly.
- ♣ So, the computerized system is more suitable than the manual system.

3.3 MODULES IN THE PROJECT

The project contains the following modules

- ❖ Home page
- ❖ Fuel
- ❖ Admin Login
- ❖ Staff Details
- ❖ Salary Details
- ❖ Sales Report
- ❖ Density
- ❖ Staff Entry
- ❖ Staff Login
- ❖ Attendance
- ❖ Oils
- ❖ Customer
- ❖ Expenses
- ❖ Contact info
- ❖ About Us
- ❖ Feedback

Home Page

A home page is generally the main web page a visitor navigating to a website from an admin will see, and it may also serve as a landing page to attract visitors. The home page is used to facilitate navigation to other pages on the site by providing links to prioritized and recent articles and pages.

Staff Module

The staff module allows you to manage all information relating to staff members, customer. Enter daily fuel price and maintain oils stock and sales.

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Sales Module

Sales module is under the control of the sales person and manager in the petrol bunk. In every sale record about that sale is inserted into the database which is manipulated by the sales person in the petrol bunk and admin can view the overall records about the sales list.

Fuel Module

This module is used to automatically display the fuel price in users.

Admin Module

Admin is the super user of this product. He plays a vital role in this application software. Because admin only manipulate the overall activities of the system. Record maintenance in the petrol bank is managed manually in the previous system. By this new system all the processes are managed systematically.

Salary Module

The salary module admin can maintain and update the salary details.

Density Module

The density module used calculate the density of petrol and diesel. Dip and temperature value used calculate the fuel density.

Oils Module

The oils module is to maintain oils stock. Update, add the oils in the stock. Automatically minus the sales oils in the stock and store the ostock database table.

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4. SYSTEM DESIGN

4.1 DATABASE DESIGN

Database design is the organization of data according to a database model. The designer determines what data must be stored and how the data elements interrelate. With this information, they can begin to fit the data to the database model. A database management system manages the data accordingly.

Database design involves classifying data and identifying interrelationships. This theoretical representation of the data is called an ontology. The ontology is the theory behind the database's design.

The main objectives behind database designing are to produce physical and logical design models of the proposed database system. To elaborate this, the logical model is primarily concentrated on the requirements of data and the considerations must be made in terms of monolithic considerations and hence the stored physical data must be stored independent of the physical conditions. On the other hand, the physical database design model includes a translation of the logical design model of the database by keep control of physical media using hardware resources and software systems such as Database Management System (DBMS).

Access organizes your information into tables: lists of rows and columns reminiscent of an accountant's pad or a spreadsheet. In a simple database, you might have only one table. For most databases you will need more than one.

4.2 DATABASE STRUCTURE

TABLES

Table Name: alogin

Table Description: This table is used to add the new admins

Filed Name	Data Type	Length	key
Id	Int	11	-----
Name	Varchar	100Id	-----
Email	Varchar	1000	-----
Pass	Varchar	10000	-----

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Table Name: slogin

Table Description: This table is used to add the new staffs.

Filed Name	Data Type	Length	key
Id	Int	11	-----
Name	Varchar	100	-----
Email	Varchar	1000	-----
Pass	Varchar	10000	-----
Pass1	Varchar	200	-----

Table Name: att

Table Description: This table is used to enter staff attendance.

Filed Name	Data Type	Length	key
Id	Int	11	-----
Name	Varchar	50	-----
Day	Date	-----	-----
Intime	Time	-----	-----
outime	Time	-----	-----

Fuel Management System

Table Name: dencon

Table Description: This table is used to enter staff attendance.

Filed Name	Data Type	Length	key
Id	Int	11	-----
Day	Date	-----	-----
Msd	Double	-----	-----
Mst	Int	11	-----
Msc	Double	-----	-----
Invoice	Bright	-----	-----
Qual	Int	11	-----
Idens	Double	-----	-----
Item	Int	11	-----
Logdens	Double	-----	-----
Chdens	Double	-----	-----
Diff	Double	-----	-----
Msddecan	Double	-----	-----
Mstdecan	Int	11	-----
Mslogdecan	Double	-----	-----

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Table Name: density

Table Description: This table is used to enter staff attendance.

Filed Name	Data Type	Length	key
Id	Int	11	-----
Day	Varchar	200	-----
Dms	Decimal	11,0	-----
Dhs2	Int	11	-----
dems	Double	-----	-----
Dehs	Int	11	-----
Tms	Int	11	-----
Ths	Int	11	-----
Msp1	Int	11	-----
Msp2	Int	-----	-----
Totmsp	Double	20	-----
Hsp1	Int	11	-----
Hsp2	Int	11	-----

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Table Name: dipcon

Table Description: This table is used to enter staff attendance.

Filed Name	Data Type	Length	key
Id	Int	11	-----
Day	Varchar	200	-----
Msd	Double	-----	-----
Msc	Double	-----	-----
Receipt	Int	11	-----
Totstock	Bright	20	-----
Totpump	Bright	20	-----
Test	Double	-----	-----
Sales	Bright	20	-----
Petp	Double	-----	-----
Amount	Bright	20	-----

Table Name: fprice

Table Description: This table is used to enter daily petrol and diesel price.

Filed Name	Data Type	Length	key
Id	Int	11	-----
Day	Date	-----	-----

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Pet	Varchar	200	-----
Des	Varchar	200	-----

Table Name: salary

Table Description: This table is used to enter staff details and staff salary details.

Filed Name	Data Type	Length	key
Id	Int	11	-----
Eid	Int	11	-----
Image	Longblob	-----	-----
Name	Varchar	50	-----
Place	Varchar	50	-----
Mob	Bright	11	-----
Salary	Bright	20	-----
Pa	Bright	20	-----
Ba	Bright	20	-----

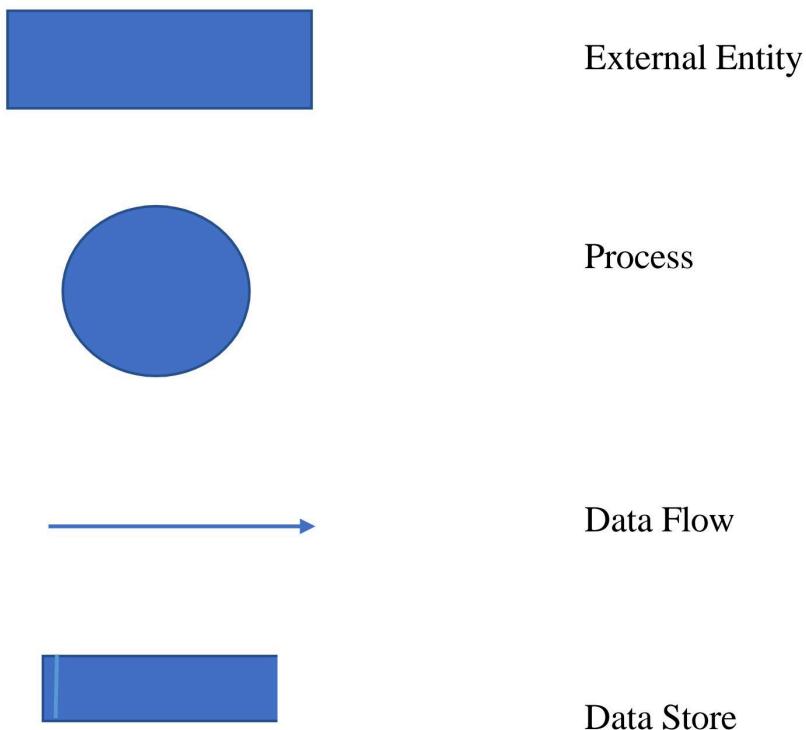
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4.3 Data Flow Diagram

A Data Flow Diagram (DFD) is a traditional visual representation of the information flows within a system. A neat and clear DFD can depict the right amount of the system requirement graphically. It can be manual, automated, or a combination of both. It shows how data enters and leaves the system, what changes the information, and where data is stored.

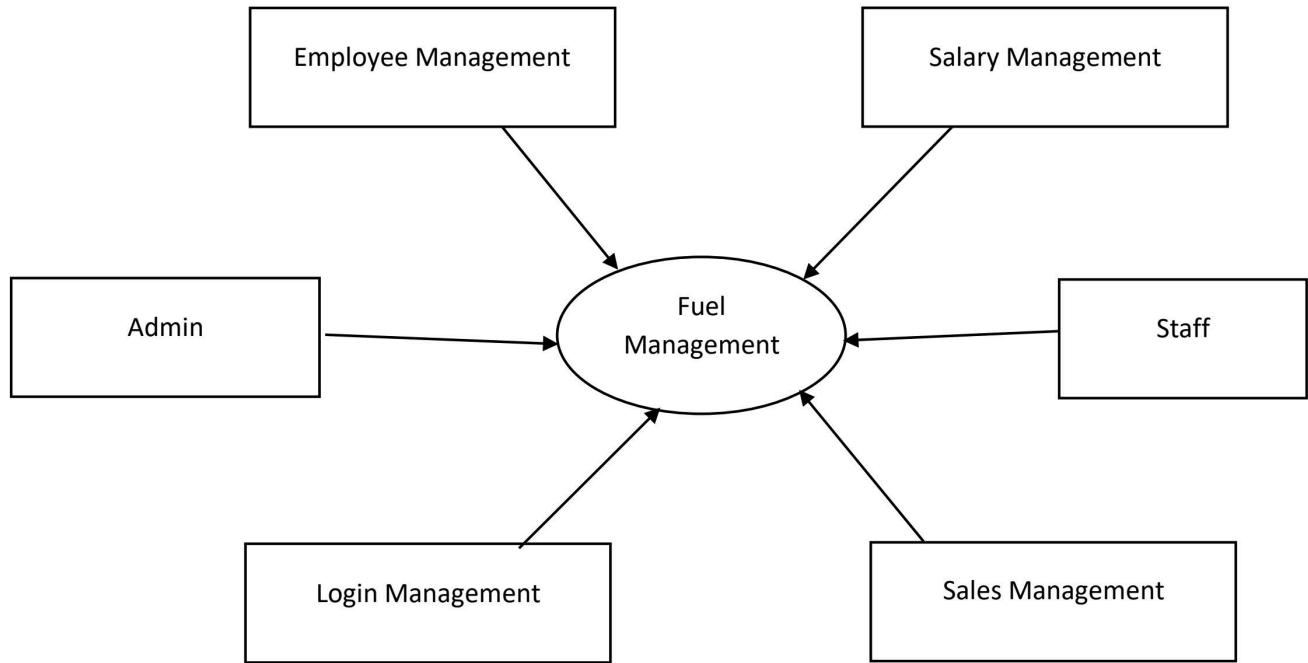
The objective of a DFD is to show the scope and boundaries of a system as a whole. It may be used as a communication tool between a system analyst and any person who plays a part in the order that acts as a starting point for redesigning a system. The DFD is also called as a data flow graph or bubble chart.

Symbols of DFD

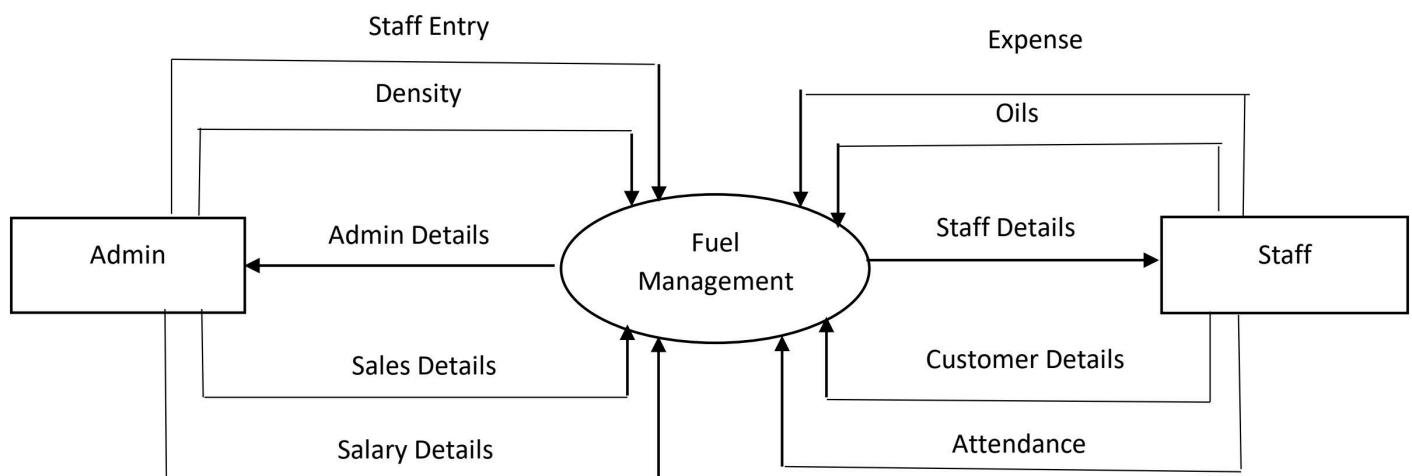


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Level 0

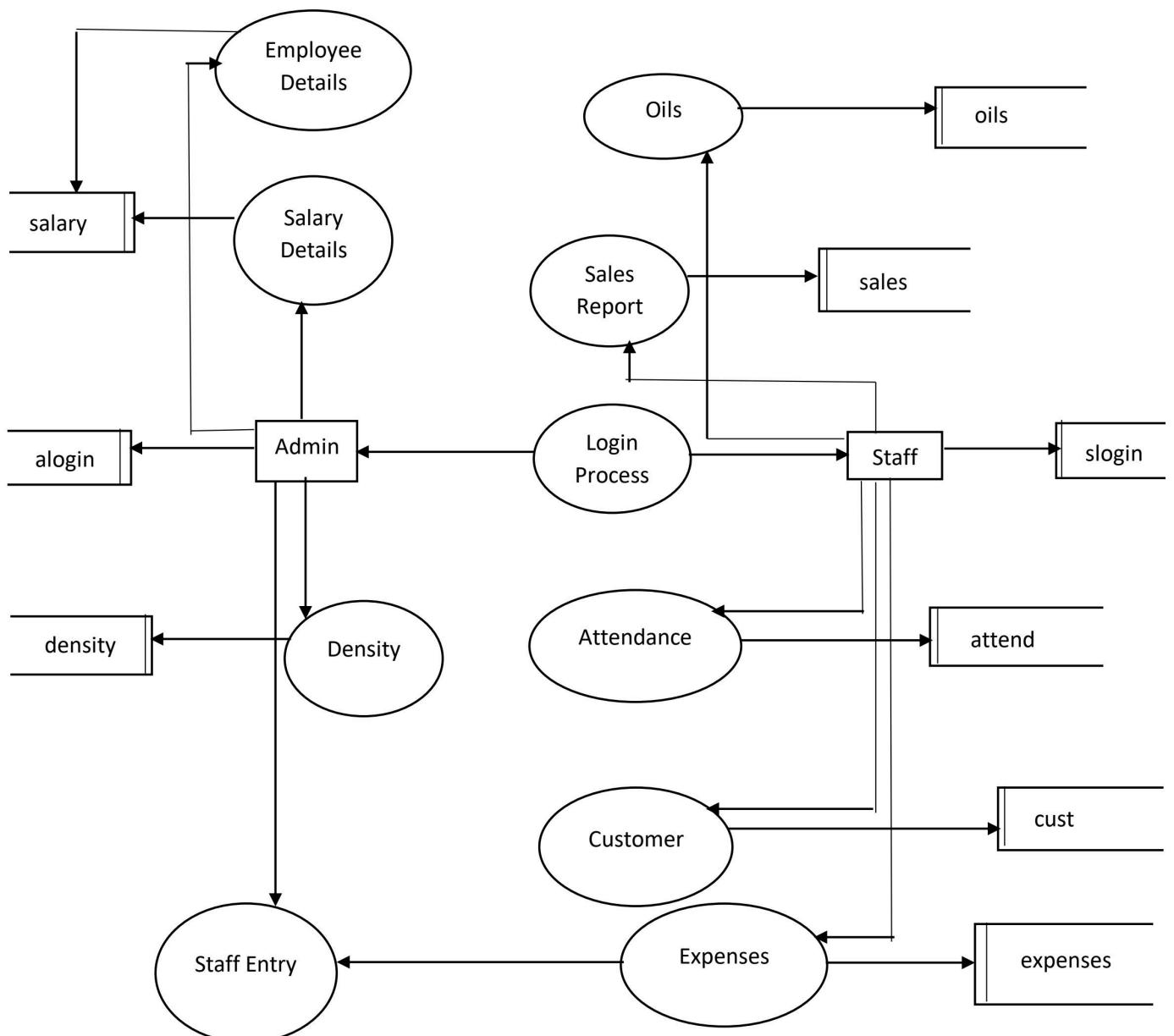


Level 1



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Level 2

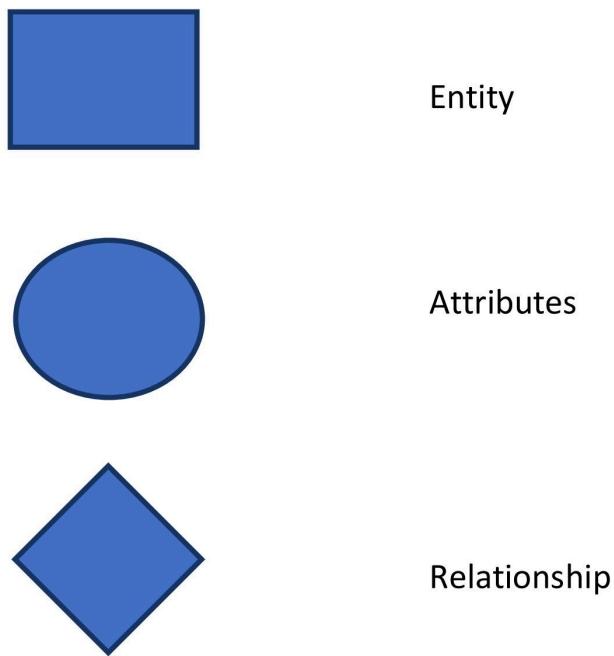


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4.4:ER Diagram

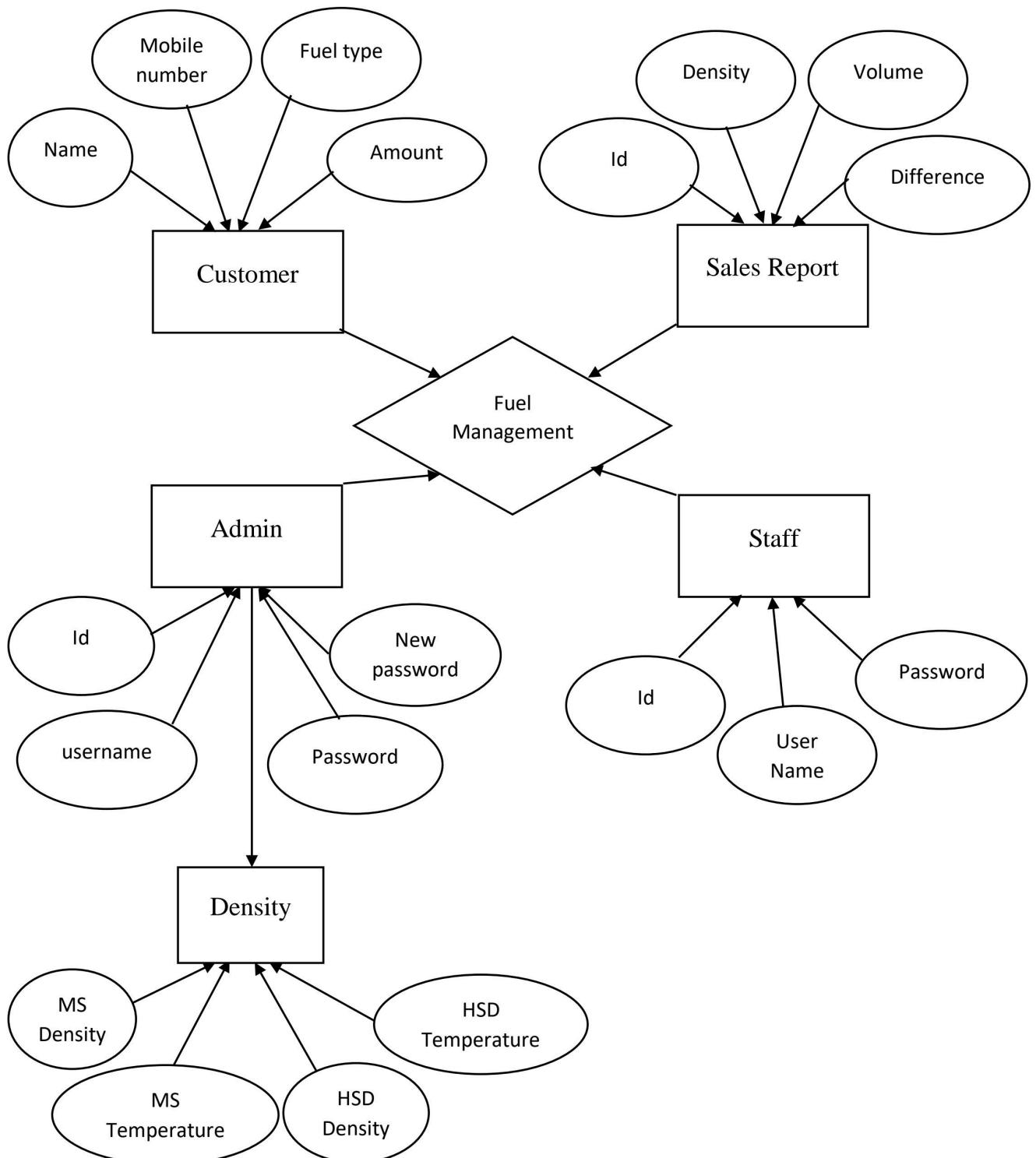
ER model stands for an Entity-Relationship model. It is a high-level data model. This model is used to define the data elements and relationship for a specified system. It develops a conceptual design for the database. It also develops a very simple and easy to design view of data. It develops a conceptual design for the database. It also develops a very simple and easy to design view of data.

Symbols of ERD



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ER Diagram for current project

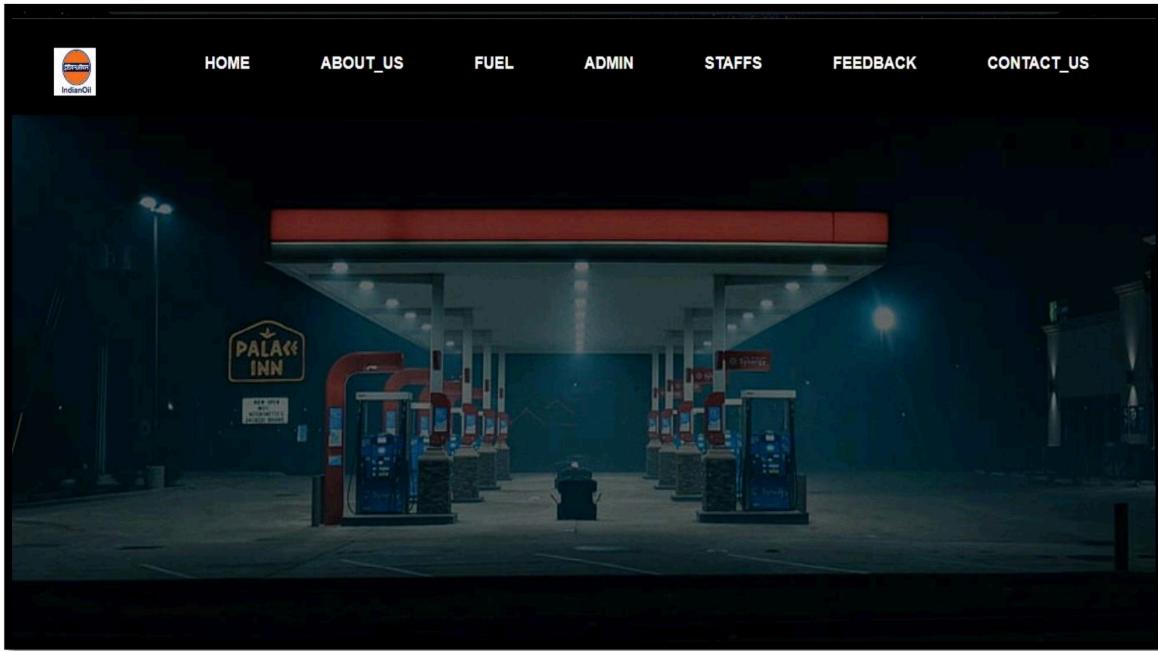


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9.APPENDIX:

9.1:Screen Layout

Home Page:



About Us:

A screenshot of a web application interface. At the top, there is a navigation bar with a logo for "IndianOil" on the left and links for "HOME", "ABOUT_US", "FUEL", "ADMIN", "STAFFS", "FEEDBACK", and "CONTACT_US". Below the navigation bar is a section titled "ABOUT US" in red capital letters. This section contains two images: one showing a gas station at night with illuminated pumps, and another showing a gas station during the day with people around. At the bottom of this section, the text "HARSHISH FUELS IN ITAMOZHI,TIRUNELVELI" is displayed in white against a pink background.

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Fuel Page:

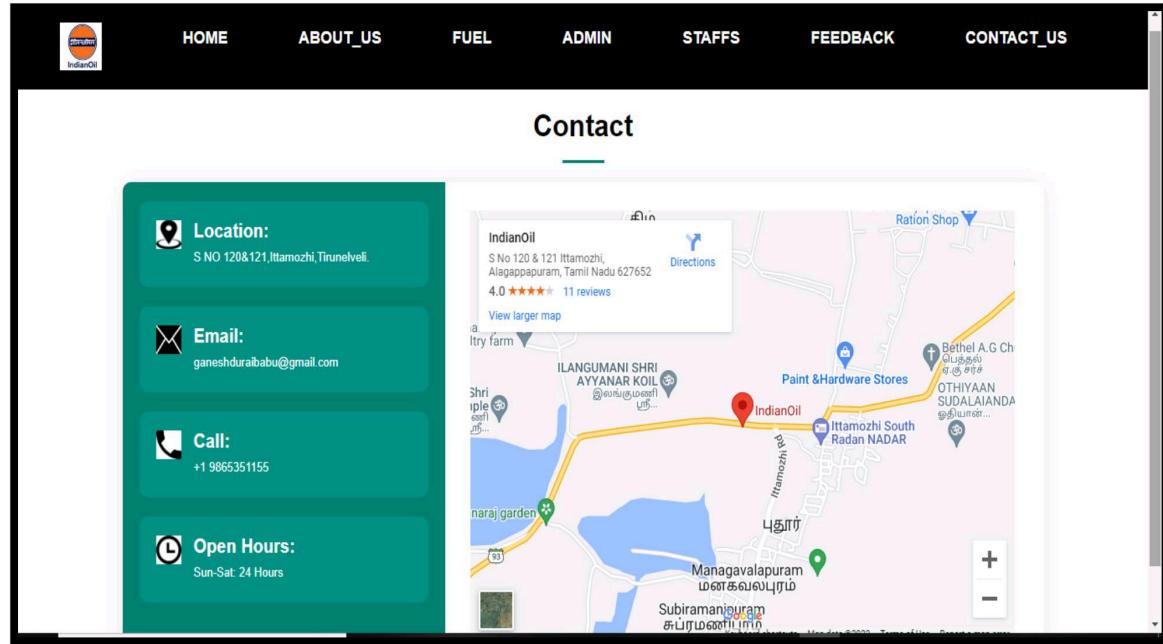
The screenshot shows the Fuel Management System's Fuel page. At the top, there is a red header bar with the text "PetrolPriceToday.Com". Below the header is a black navigation bar with links: HOME, ABOUT_US, FUEL, ADMIN, STAFFS, FEEDBACK, and CONTACT_US. On the left side of the main content area, there is a logo for "IndianOil" with the text "strides IndianOil". The main content area displays fuel price information for "harshish fuels". It includes three boxes: "Petrol Price" showing 103.43₹/Litre, "Diesel Price" showing 95.08₹/Litre, and "X-Premium Petrol Price" showing "Not Available". The date "14 APR" is displayed in each box.

Feedback Page:

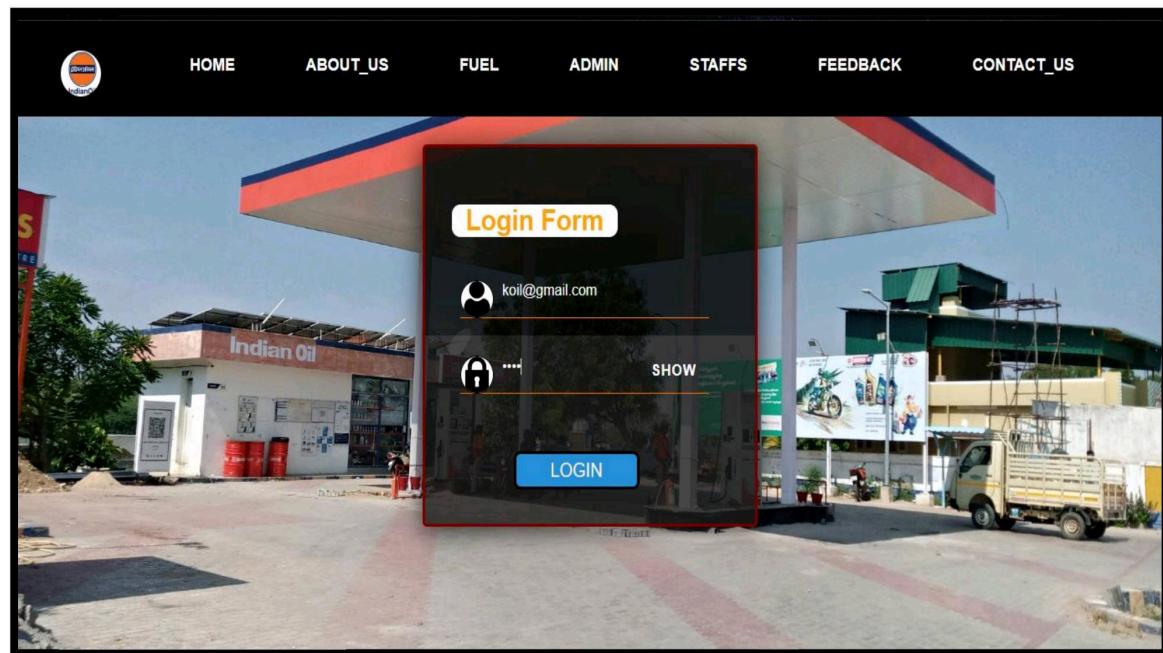
The screenshot shows the Fuel Management System's Feedback page. At the top, there is a black navigation bar with links: HOME, ABOUT_US, FUEL, ADMIN, STAFFS, FEEDBACK (which is highlighted in orange), and CONTACT_US. The main content area features a large image of an Indian Oil fuel station. Overlaid on the image is a dark feedback form with the word "FEEDBACK" in orange at the top. The form contains four input fields: "Your name *", "Your mobile no *", "Subject *", and "Write a comment *". A pink "SUBMIT" button is located at the bottom of the form. The URL "localhost/major/feed.php" is visible at the bottom left of the page.

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Contact Us:

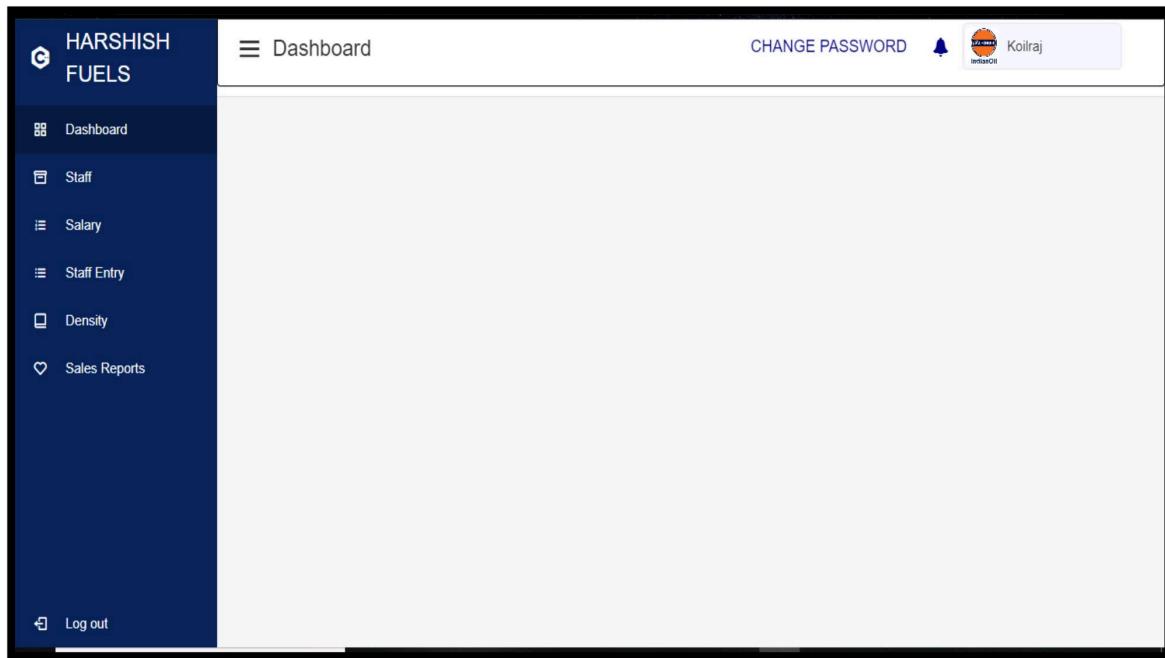


Login Page:



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Admin Dashboard:

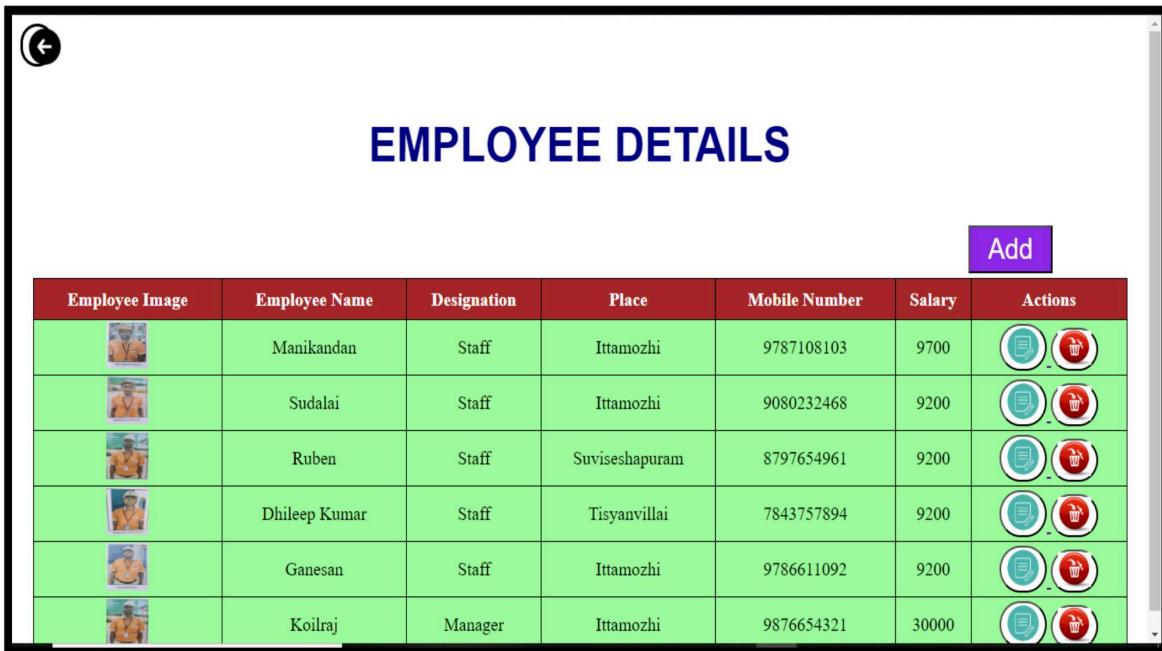


Change Password:

A screenshot of the 'CHANGE PASSWORD' page. It features a pink header with the title 'CHANGE PASSWORD'. Below the header are four input fields: 'USERNAME' with the value 'koil@gmailcom', 'OLD PASSWORD' with three redacted dots, 'NEW PASSWORD' with three redacted dots, and 'CONFIRM NEW PASSWORD' with three redacted dots. At the bottom right is a blue 'CHANGE' button.

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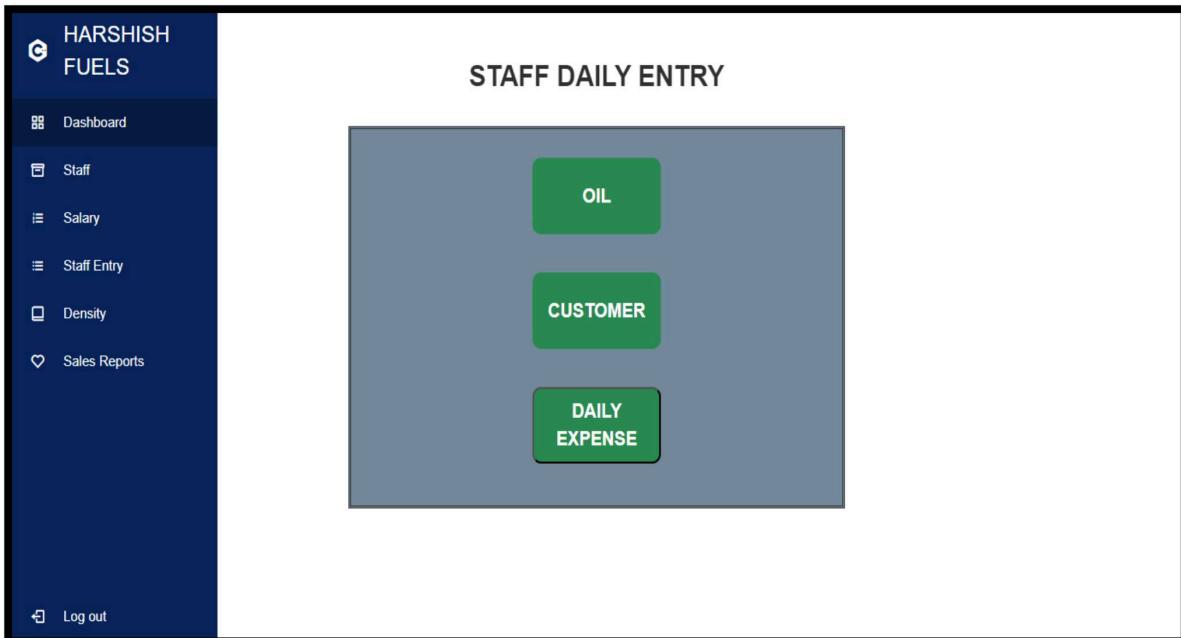
Employee Details:



A screenshot of a web-based application titled "EMPLOYEE DETAILS". At the top right is a purple "Add" button. Below it is a table with columns: Employee Image, Employee Name, Designation, Place, Mobile Number, Salary, and Actions. The table contains six rows of data, each with a small profile picture of a staff member and their details. The "Actions" column for each row contains two icons: a blue one with a pencil and a red one with a trash can.

Employee Image	Employee Name	Designation	Place	Mobile Number	Salary	Actions
	Manikandan	Staff	Ittamozihi	9787108103	9700	 
	Sudalai	Staff	Ittamozihi	9080232468	9200	 
	Ruben	Staff	Suvisheshapuram	8797654961	9200	 
	Dhileep Kumar	Staff	Tisyanvillai	7843757894	9200	 
	Ganesan	Staff	Ittamozihi	9786611092	9200	 
	Koilraj	Manager	Ittamozihi	9876654321	30000	 

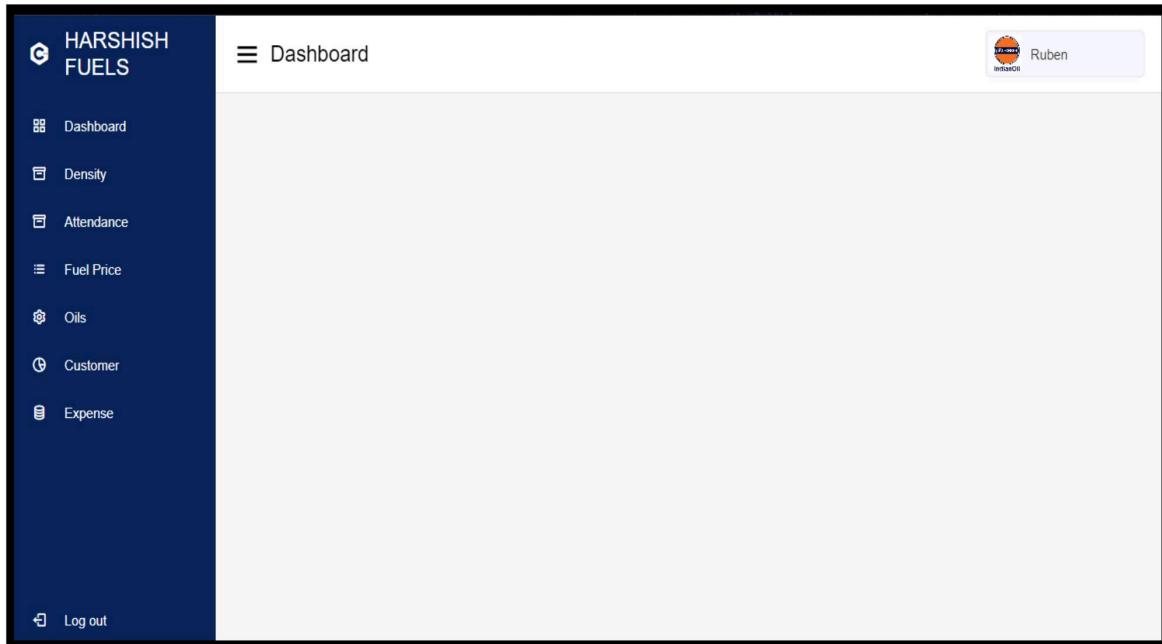
Staff Daily Entry:



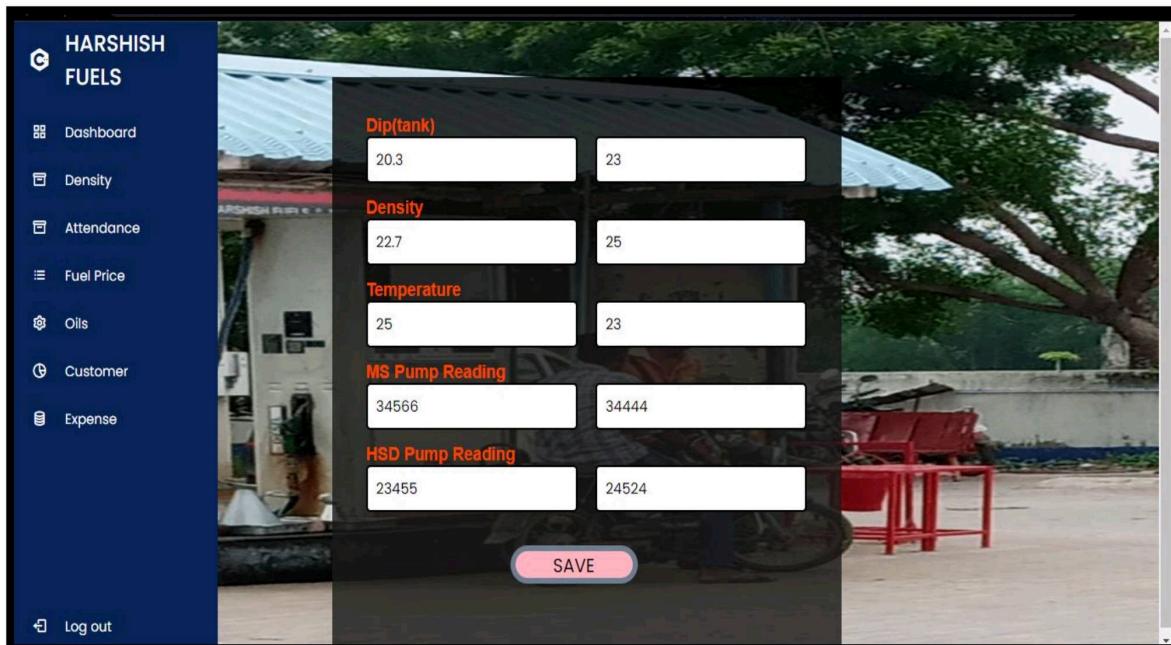
A screenshot of a web-based application titled "STAFF DAILY ENTRY". On the left is a sidebar menu with the following items: HARSHISH FUELS, Dashboard, Staff, Salary, Staff Entry, Density, Sales Reports, and Log out. The main area has a large grey box containing three green buttons labeled "OIL", "CUSTOMER", and "DAILY EXPENSE".

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Staff Dashboard:



Density form:



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Attendance Page:

The Attendance Details page features a sidebar on the left with the company logo and a list of navigation options: Dashboard, Density, Attendance, Fuel Price, Oils, Customer, Expense, and Log out. The main area is titled "Attendance Details" and contains two green rectangular buttons labeled "Entry" and "Exit".

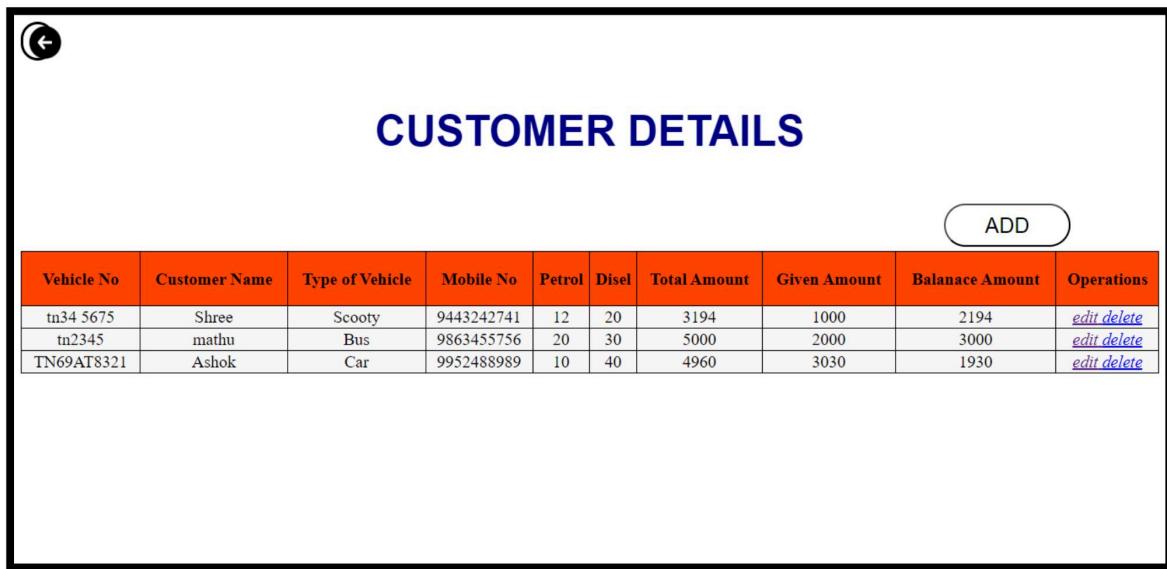
Oil List:

The Oils List page displays a grid of oil products with their descriptions and quantity selection boxes. The products are numbered 1 through 19. A "SAVE" button is located at the bottom right.

Product	Quantity Options
1)2T Oil	<input type="checkbox"/> 1 Litre <input type="text"/>
2)20w40	<input type="checkbox"/> 1/2 Litre <input type="text"/> <input type="checkbox"/> 1 Litre <input type="text"/> <input type="checkbox"/> 3 Litre <input type="text"/> <input type="checkbox"/> 5 Litre <input type="text"/>
3)15w40	<input type="checkbox"/> 1 Litre <input type="text"/> <input type="checkbox"/> 5 Litre <input type="text"/>
4)4T Oil	<input type="checkbox"/> 1 Litre <input type="text"/>
5)Break Oil	<input type="checkbox"/> 1/2 Litre <input type="text"/> <input type="checkbox"/> 1 Litre <input type="text"/>
6)Yellow Cloth	<input type="checkbox"/> 1 Packet <input type="text"/>
7)Blue Cloth	<input type="checkbox"/> 1 Packet <input type="text"/>
8)Acid	<input type="checkbox"/> 1/2 Litre <input type="text"/>
9)Grease	<input type="checkbox"/> 200 g <input type="text"/> <input type="checkbox"/> 1/2 Kg <input type="text"/> <input type="checkbox"/> 1 Kg <input type="text"/>
10)5w30	<input type="checkbox"/> 3 Litre <input type="text"/> <input type="checkbox"/> 5 Litre <input type="text"/>
11)Distile water	<input type="checkbox"/> 1 Litre <input type="text"/> <input type="checkbox"/> 2 Litre <input type="text"/>
12)10w30	<input type="checkbox"/> 1 Litre <input type="text"/>
13)Power String Oil	<input type="checkbox"/> 1 Litre <input type="text"/>
14)Gear Oil 90	<input type="checkbox"/> 1 Litre <input type="text"/>
15)Gear Oil 140	<input type="checkbox"/> 1 Litre <input type="text"/>
16)Petrol Adon	<input type="checkbox"/> 1 Packet <input type="text"/>
17)Diesel Adon	<input type="checkbox"/> 1 Packet <input type="text"/>
18)Weast	<input type="checkbox"/> 1 Packet <input type="text"/>
19)Koolont Oil	<input type="checkbox"/> 1 Litre <input type="text"/>

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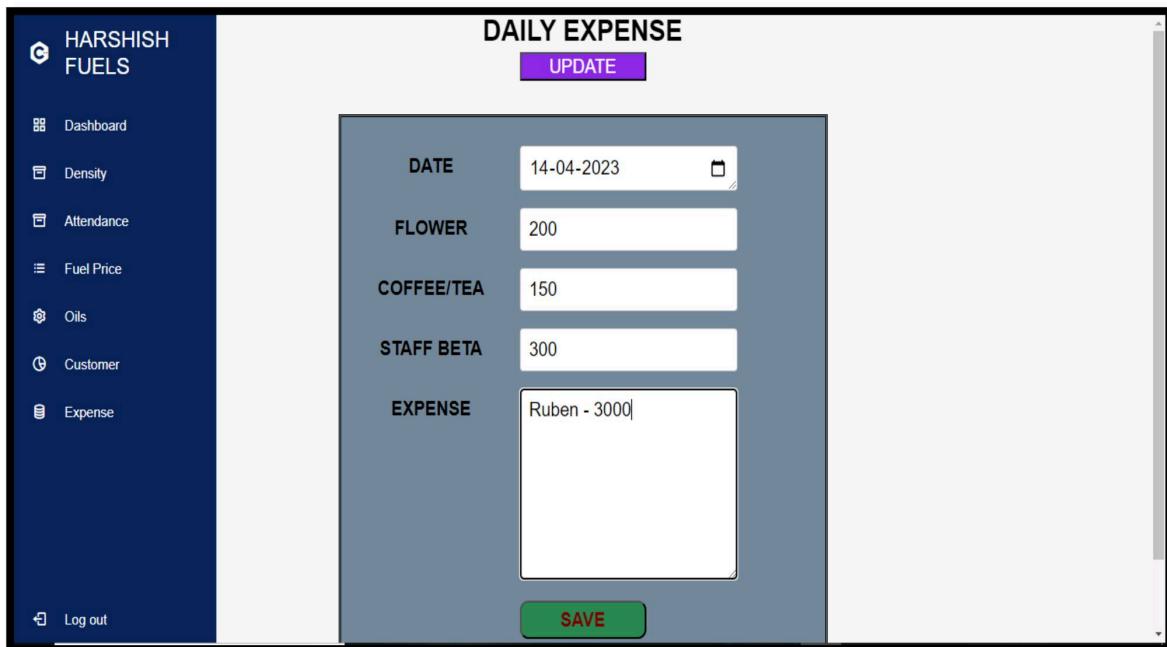
Customer Details Page:



A screenshot of a web-based application titled "CUSTOMER DETAILS". At the top right is a blue "ADD" button. Below it is a table with the following data:

Vehicle No	Customer Name	Type of Vehicle	Mobile No	Petrol	Diesel	Total Amount	Given Amount	Balanace Amount	Operations
tn34 5675	Shree	Scooty	9443242741	12	20	3194	1000	2194	edit delete
tn2345	mathu	Bus	9863455756	20	30	5000	2000	3000	edit delete
TN69AT8321	Ashok	Car	9952488989	10	40	4960	3030	1930	edit delete

Expense Page:



A screenshot of a web-based application titled "DAILY EXPENSE". On the left is a sidebar with the following menu items:

- HARSHISH FUELS
- Dashboard
- Density
- Attendance
- Fuel Price
- Oils
- Customer
- Expense
- Log out

The main area has a purple "UPDATE" button at the top. Below it is a form with the following fields:

DATE	14-04-2023	<input type="button" value="CALENDAR"/>
FLOWER	200	
COFFEE/TEA	150	
STAFF BETA	300	
EXPENSE	Ruben - 3000	
<input type="button" value="SAVE"/>		