

#### A.P. SHAH INSTITUTE OF TECHNOLOGY

Department of Computer Science and Engineering

Data Science



## NotifyMe! (CRM)

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#### 1. Introduction

#### **Problem Identified:**

- Lack of effective communication between clients and companies, leading to missed opportunities and decreased client satisfaction.
- Need to track services provided to the user, and generate an analysis report to calculate the profit earned.
- Lack of a Complete Single Sales Suite aiming Lead Generation with Customer Data Management.

#### **Solution Proposed:**

- A centralized platform integrating communication tools like email and WhatsApp to enhance client-company interactions.
- Analyze the data using matplotlib for the purpose of tracking profit and creating a report for following purpose.

## 2. Objectives

- 1. Implement CRUD operations to efficiently manage data within the system.
- 2. Enable data visualization and analytics for insightful decision-making.
- 3. Integrate SMS functionality to streamline communication processes.
- 4. Embed WhatsApp and Gmail to facilitate seamless formal communication.

## 3. Scope

- 1. Integration and Scalability: The system will be integrated with a MySQL database for efficient data storage and management and What's App + Email for customer Interaction.
- 2. Client Interaction: The CRM system will be allow the Employee to send client schedules for upcoming meeting through Whatsapp and email
- 3. User-Friendly Interface: The CRM system will provide an intuitive and easy-to-use interface, ensuring that users with varying technical skills can navigate and operate the system effectively.
- **4. Data Management:** It will provide features for updating, deleting, and retrieving customer data efficiently through a centralized database (MySQL integration).

## 4. Feature / Functionality

- 1. User Authentication: To be able to create accounts with validated inputs where existing users can login using their credentials.
- 2. What's App + Email Integration: To provide customer communication.
- 3. Customer Data Managements:- To be able Create, Read, Update and Delete Customer data stored in MySQL database for easy access
- 4. Meeting scheduling:- Employees can upload Excel files containing meeting schedules. Reminders are sent to clients via WhatsApp before the meeting By the Employee.

## 5. Outcome of Project

- 1. Efficient Customer Data Management: A centralized platform where customer information is securely stored and easily accessible, improving data consistency and reducing fragmentation across departments.
- 2. Improved Customer Relationships: Enhanced customer interactions through personalized communication, leading to increased customer satisfaction, loyalty, and retention. The system streamlines the process of bill generation and distribution.
- 3. User-Friendly Experience: An intuitive interface that makes the system easy to use, improving user adaptation and ensuring effective use of the system's features.
- 4. Data Analysis: Success in analyzing data and representing it through graphical representation, like a Pie chart, across various departments

## **Home Page**

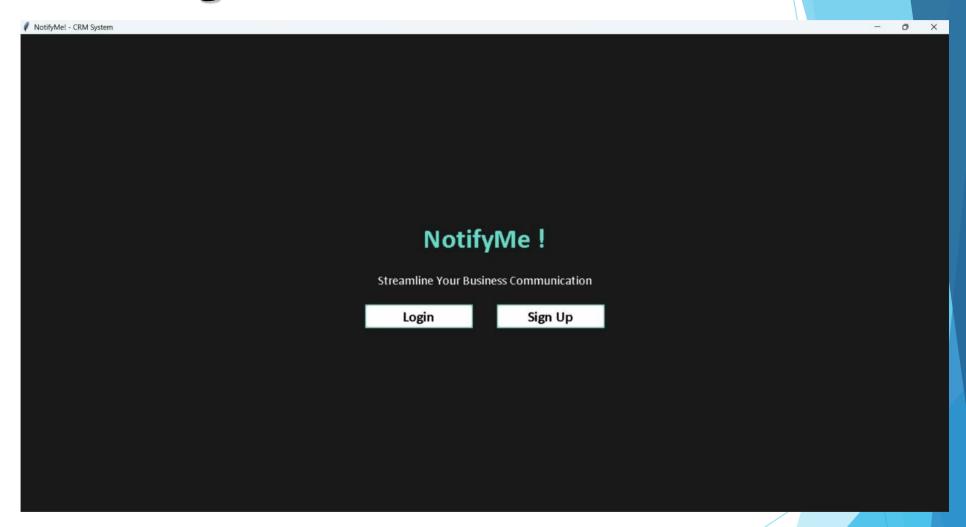


Fig 1. Home Page

## Sign-up Page

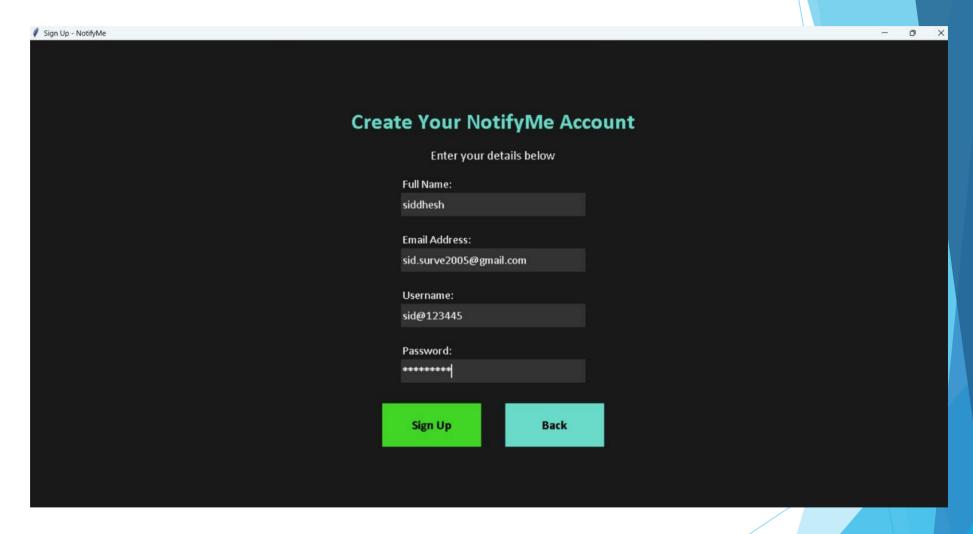


Fig 2. Signup Page

# **Login Page**

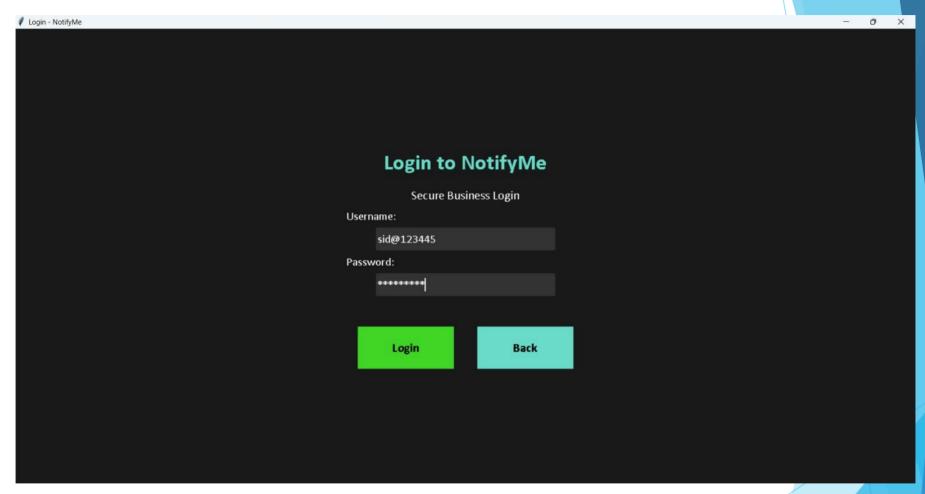


Fig 3. Login Page

### **Dashboard**

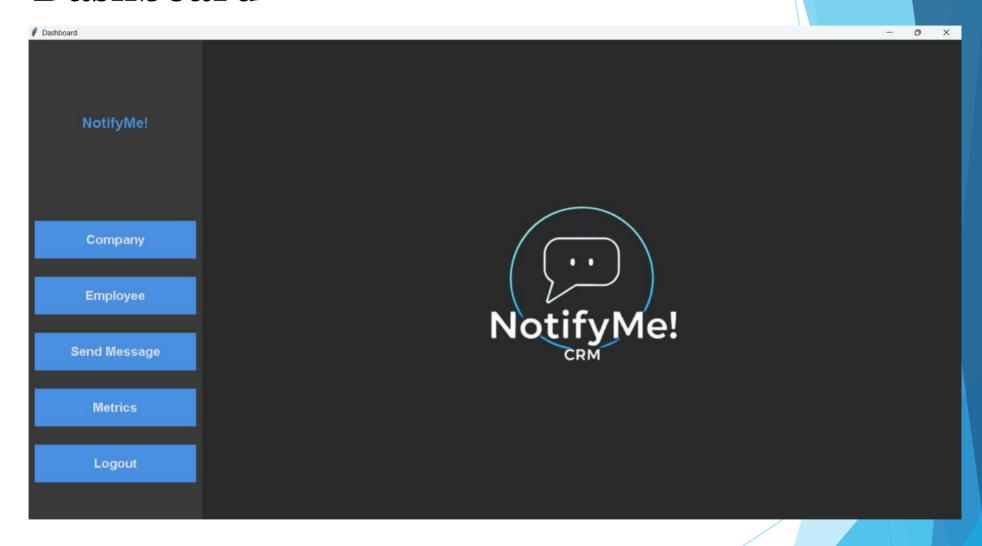


Fig4. Dashboard Page

## Company Management Page

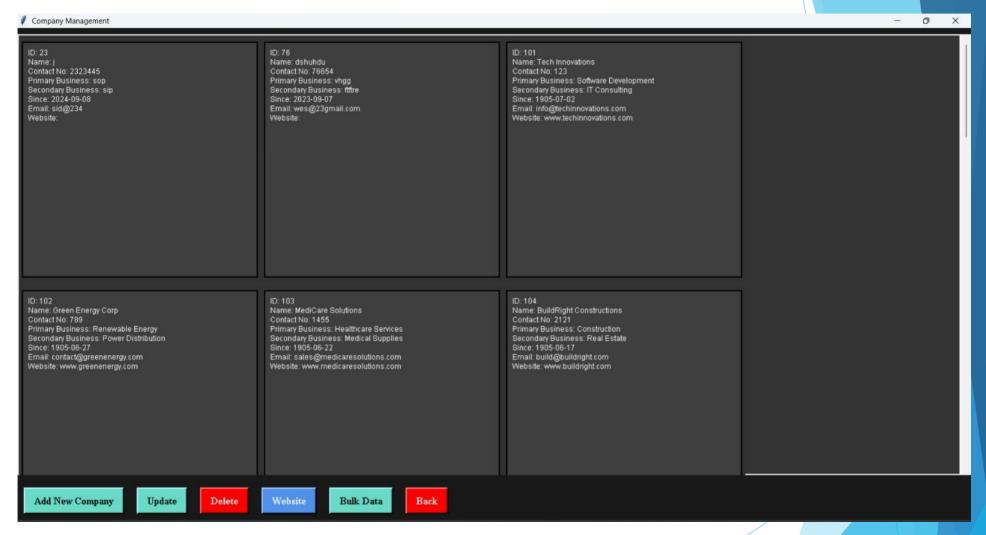


Fig 5. Company Management Page

### **Operations of Company Management Page**

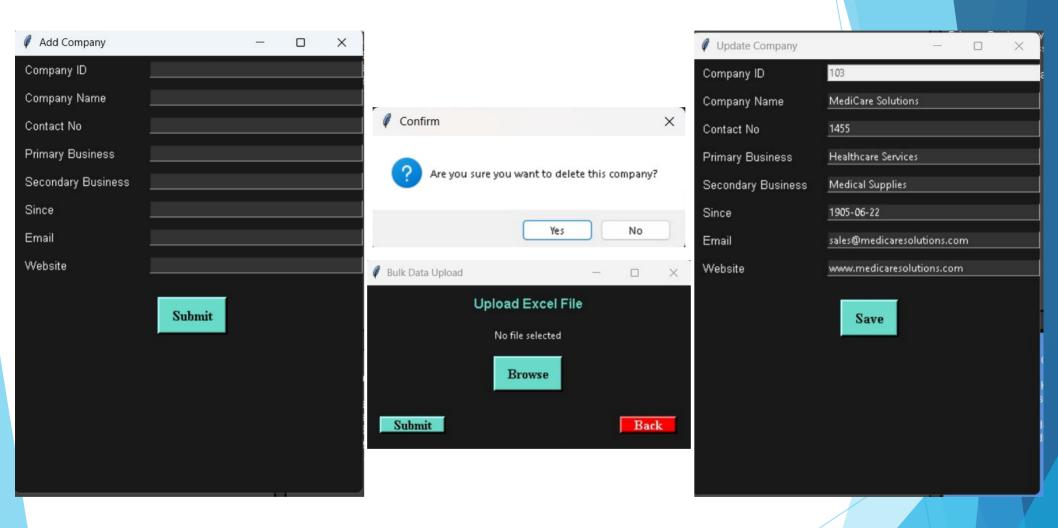


Fig 5.1. Various Operations of Company Management Page

## **Employee Details Page**

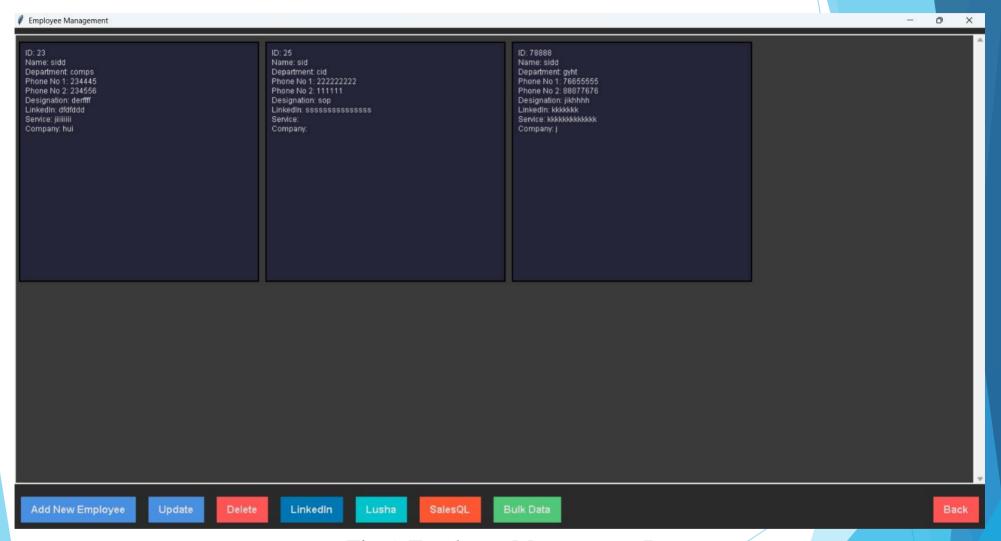


Fig 6. Employee Management Page

## Send Message Page

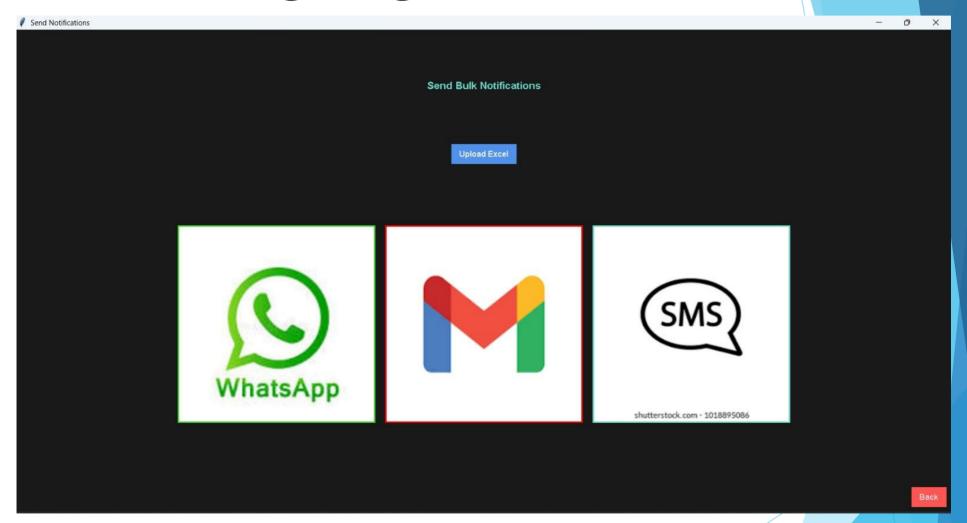


Fig 7. Send Message Page

### Send Message Page

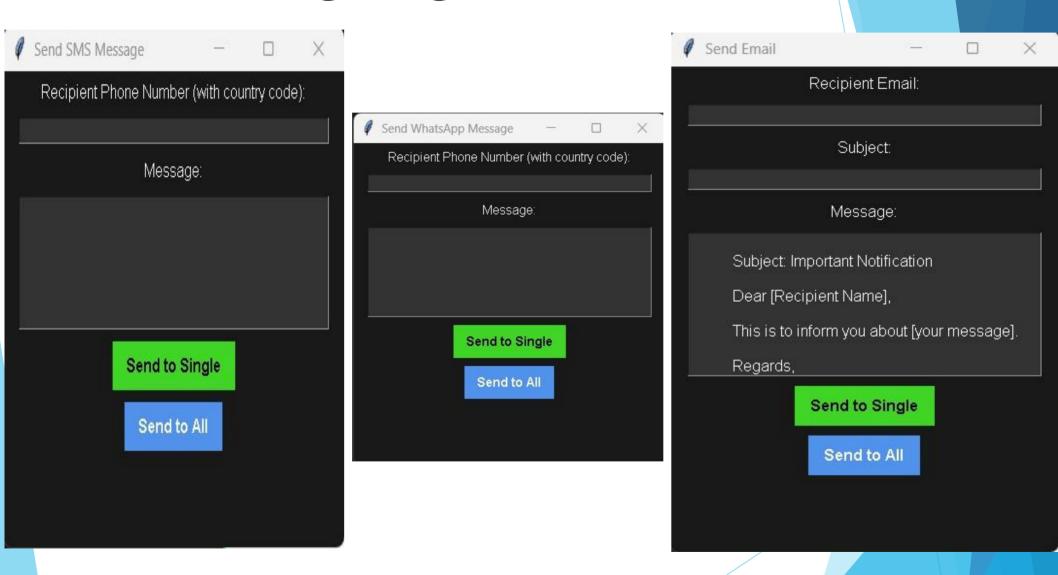


Fig 7.1 Various Methods provided for Communication.

## **Metrics Page**

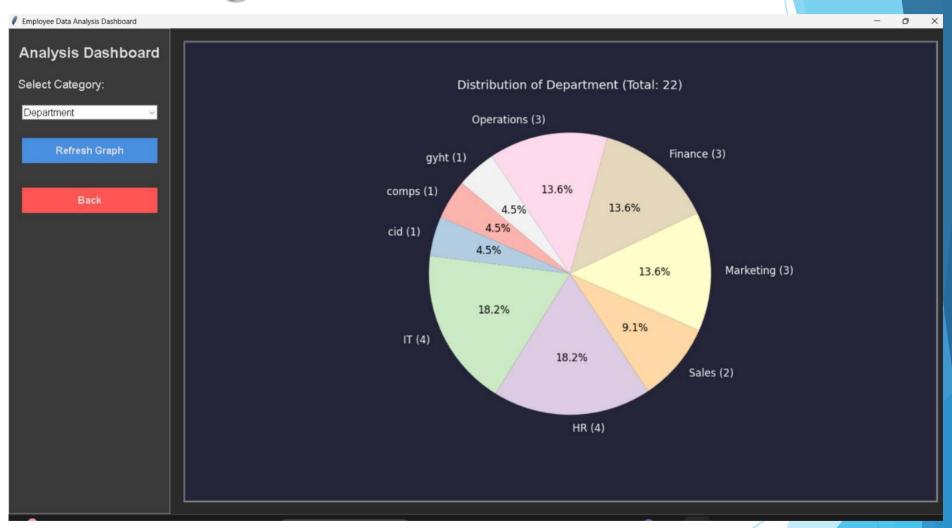
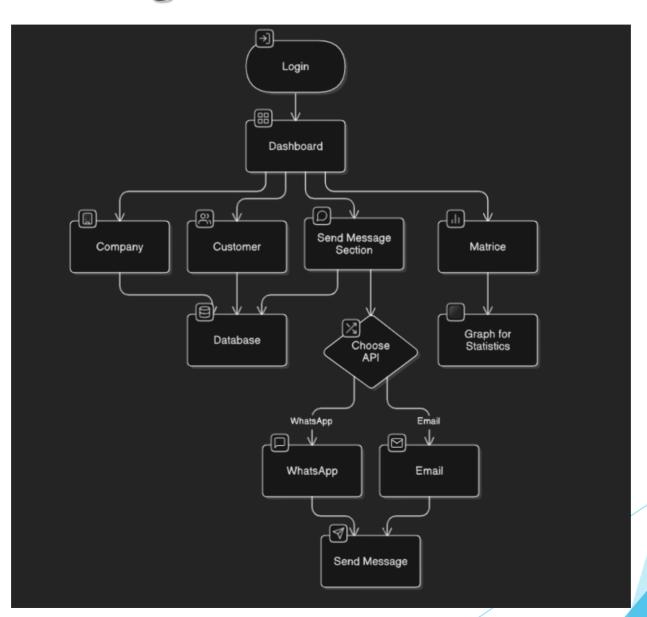


Fig 9. Metrics (Data Analysis) Page

## 6. Technology Stack

- **1. Front-End:** Tkinter, Python library for creating the user interface.
- 2. Back-End:- MySQL 8.0 is used for database management, ensuring efficient storage and retrieval of billing data.
- 3. APIs and External Services: Twilio API For sending WhatsApp messages. SMTP For sending emails. Excel Integration Using Pandas and OpenPyXL.
- **4. Libraries and Frameworks:** <u>Pandas</u> For processing Excel files. <u>OpenPyXL</u> For reading/writing Excel files. <u>Twilio Python Library</u> For WhatsApp integration. smtplib For email integration. <u>Matplotlib</u> for data analysis. <u>pywhatkit()</u> For Single and Bulk WhatsApp Messaging, <u>Pyautogui()</u> for Automation of Bulk Messaging on WhatsApp. <u>Mail.meme</u> for Email messaging.

# 7. Block Diagram



Thank You...!!