CUSTOMER RELATIONSHIP AND MANAGEMENT (CRM)

DEVELOPED USING PYTHON TKINTER

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AGENDA

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INTRODUCTION

- CRM project helps manage customer information easily.
- User-friendly interface to add, search, and delete customer records.
- Developed using **Python TKinter** for GUI.
- Uses **SQLite** for secure and reliable data storage.
- Integrates GUI with database for smooth operations.
- Demonstrates basic **CRUD operations** (Create, Read, Update, Delete).
- Lightweight desktop application for efficient customer management.

OBJECTIVES

- Simplify and streamline customer information management.
- Provide an easy-to-use desktop application.
- Allow users to quickly add new customer details.
- Enable searching for specific customers easily.
- Allow deletion of outdated or unwanted customer records.
- Maintain a reliable and persistent SQLite database.
- Ensure customer data is safely stored and easily accessible.
- Improve efficiency and reduce manual work.
- Enable smooth and effective customer data handling.

PROJECT OVERVIEW

- Stores and manages customer details neatlyAdd Customer Function.
- Adds new customer records quicklySearch Functionality.
- Finds customers instantly using keywordsDisplay All Customer Records.
- Shows all customer data clearly in a tableDelete Customer Records.
- Removes selected customer entries easilySimple and User-Friendly Interface.
- Clean and easy-to-use designEfficient Workflow.
- Smooth process for adding, viewing, searching & deleting.

DATABASE DESIGN

- Table: customer
- Columns:
- id – Primary Key, Auto Increment
- name – Customer Name
- email – Customer Email
- phone – Customer Phone Number
- Persistent storage using SQLite

FEATURES OF CRM

- Add Customer – Insert new customer details
- Search Customer – Search by name
- Delete Customer – Remove selected customer
- View All Customers – Display all records in table
- User-friendly GUI interface

GUI OVERVIEW

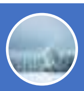
- Input section for Name, Email, Phone
- Buttons for Add, Search, Delete
- Table view to display customer data
- Clear and simple layout
- Placeholder for GUI screenshot

FUNCTIONS IN PROJECT

- add_customer() – Adds data to database
- load_customers() – Loads all data into table
- delete_customer() – Deletes selected record
- search_customer() – Filters records by name

CUSTOMER FIELDS TABLE

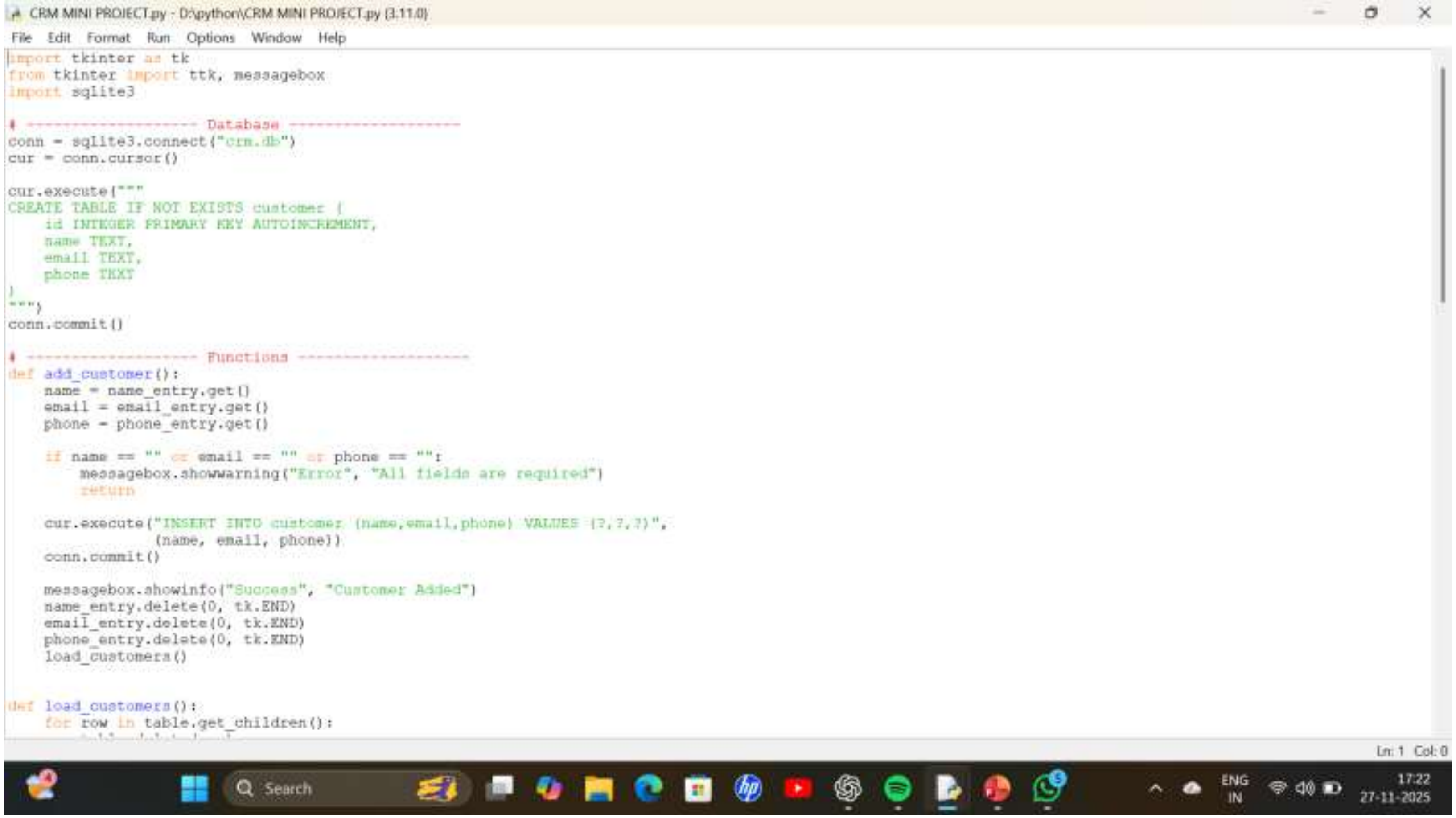
FIELD	DESCRIPTION
ID	Unique customer identifier
NAME	Customer full name
EMAIL	Contact using mail address
PHONE	Customer mobile number



GUI WIDGETS TABLE

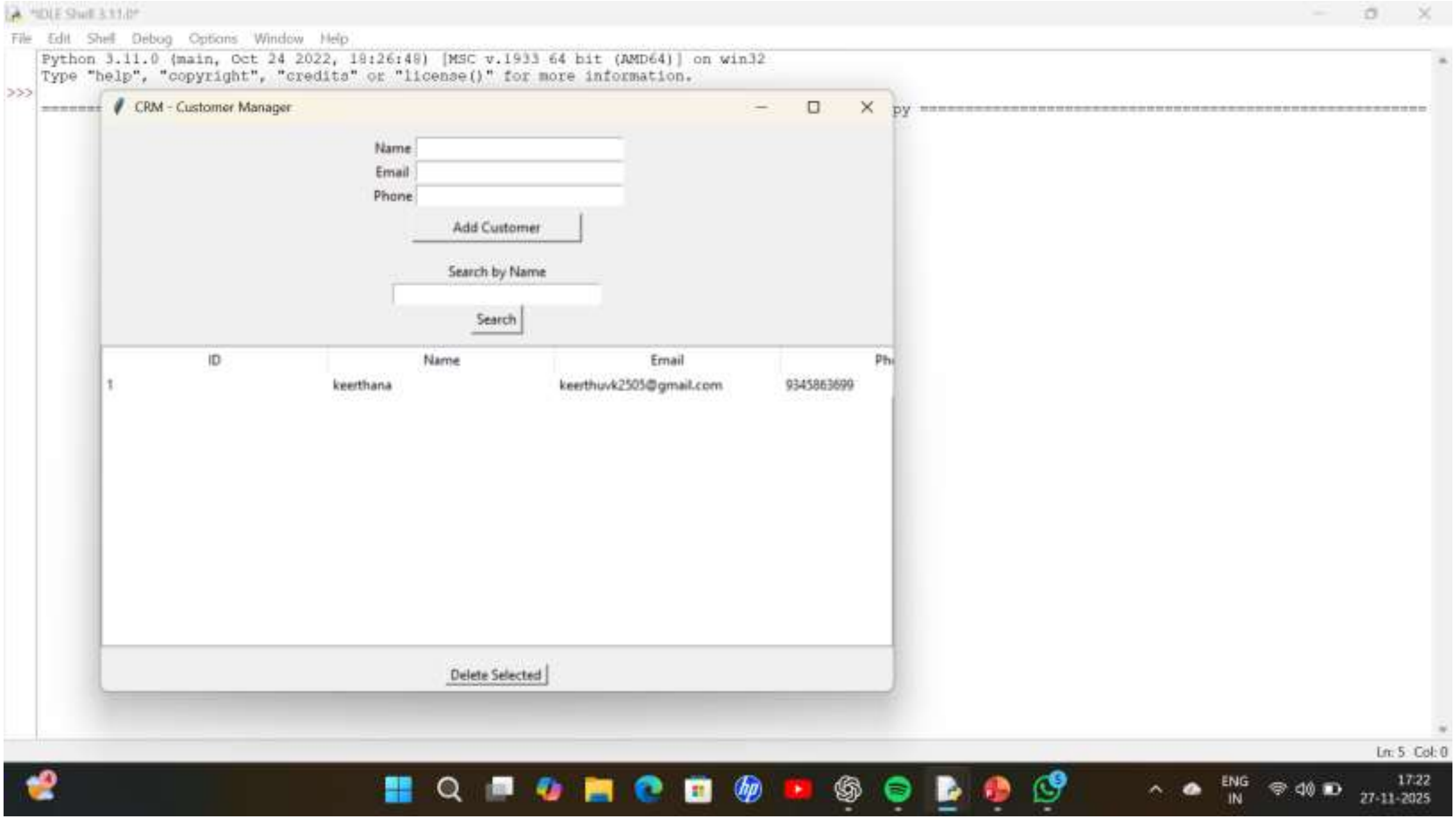
WIDGETS	PURPOSE
ENTRY BOX	User data inputs
BUTTON	Perform actions
TREE VIEW	Display customer data
LABELS	Fields names

TKINTER CODE


CRM MINI PROJECT.py - D:\python\CRM MINI PROJECT.py (3.11.0)
File Edit Format Run Options Window Help
Ln: 1 Col: 0
Search
ENG
IN
17:22
27-11-2025

```
import tkinter as tk
from tkinter import ttk, messagebox
import sqlite3

# -------------------- Database --------------------
conn = sqlite3.connect("crm.db")
cur = conn.cursor()

cur.execute("""
CREATE TABLE IF NOT EXISTS customer (
    id INTEGER PRIMARY KEY AUTOINCREMENT,
    name TEXT,
    email TEXT,
    phone TEXT
)
""")
conn.commit()

# -------------------- Functions --------------------
def add_customer():
    name = name_entry.get()
    email = email_entry.get()
    phone = phone_entry.get()

    if name == "" or email == "" or phone == "":
        messagebox.showwarning("Error", "All fields are required")
        return

    cur.execute("INSERT INTO customer (name,email,phone) VALUES (?,?,?)",
                (name, email, phone))
    conn.commit()

    messagebox.showinfo("Success", "Customer Added")
    name_entry.delete(0, tk.END)
    email_entry.delete(0, tk.END)
    phone_entry.delete(0, tk.END)
    load_customers()


def load_customers():
    for row in table.get_children():
```

OUTPUT



```
Python 3.11.0 (main, Oct 24 2022, 18:26:48) [MSC v.1933 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
=======                                                     py ==========================
```

Name
Email
Phone

ID	Name	Email	Ph
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INSIGHTS

- 1. Using TKinter simplifies GUI development
- 2. SQLite allows lightweight database management
- 3. CRUD operations implemented efficiently
- 4. Treeview provides a neat table format
- 5. Messagebox improves user interaction
- 6. Searching enhances data handling
- 7. Deletion ensures database maintenance
- 8. Easy to extend for more features

CONCLUSION

- Developed a simple and efficient CRM system
- Successfully implemented Add, Search, Delete, View features
- Demonstrated integration of Python GUI and SQLite
- Can be extended for real-world applications

THANK YOU!