TECHNIK NEST
INNOVATIVE MINDS, NESTING SUCCESS

Name: Hassan Ali

Intern ID: TN/IN02/PY/012

Email ID: hassanali2127294@gmail.com

Internship Domain: Python Development

Instructor Name: Mr. Hassan Ali

Final Report: Quotation & Invoice Data Entry System (Excel-Based)

1. Introduction

This project is a Python-based desktop application designed to create quotations and invoices efficiently. The application leverages Tkinter for the Graphical User Interface (GUI) and OpenPyXL for Excel file manipulation. Users can input company details, product information, and transaction type (Quotation/Invoice). The program automatically stores the data in an Excel file and calculates total costs.

---

2. Objectives

- To provide a user-friendly interface for generating invoices and quotations.
- To automate the process of recording and organizing company, client, and product details.
- To calculate and store the total price for each entry automatically.
- To maintain records in Excel format for easy sharing, editing, and printing.

---

3. Tools & Libraries Used

- Python 3.x – Programming Language
- Tkinter – GUI Development
- OpenPyXL – Excel file creation and manipulation
- OS module – File handling (checking if the file exists)

---

4. System Design & Workflow

a. GUI Components

1. **Company Information Section**
    - Company Name (Dropdown)
    - NTN Number (Entry field)
    - GST Number (Entry field)
2. **Quotation/Invoice Selection Section**
    - Type (Quotation or Invoice)
    - Date Entry
3. **Product/Item Data Entry Section**

- Serial Number (Spinbox)
- Description (Entry field)
- Dimensions (Entry field)
- Brand (Entry field)
- Quantity (Spinbox)
- Unit (Dropdown: PCS, BOX, MTR, etc.)
- Price per Unit (Spinbox)

4. **Terms & Conditions Section**
    - Placeholder for validity duration and other conditions.
5. **Data Submission Button**
    - A button to save data into Excel.

---

b. Excel File Structure

When data is entered, the application checks whether the Excel file (data.xlsx) exists.

- If file does not exist, it creates a new workbook with:
    - Company information
    - Quotation/Invoice type & date
    - Headers (Sr., Description, Dimensions, Brand, Qty, Unit, Price/Unit, Total Price)
- If file already exists, it appends new rows with product/item data.

Each row automatically calculates:

Total Price=Quantity×Price/Unit\text{Total Price} = \text{Quantity} \times \text{Price/Unit}Total Price=Quantity×Price/Unit

---

c. Formatting

- The first cell (A1) is styled with red font and size 25 for emphasis.
- Data is appended row by row to keep a continuous record of all transactions.

---

5. Key Function: enter_data()

This function handles:

1. Fetching input values from GUI fields.
2. Checking if data.xlsx exists.
    - If not → Creates file with headers.
3. Appending new item data along with calculated total price.
4. Saving updated workbook.

---

6. Advantages

- Easy and fast generation of quotations/invoices.
- No manual Excel editing required.
- Prevents calculation mistakes by auto-calculating totals.
- Professional record-keeping in Excel format.
- Customizable units and multiple product entry options.

---

7. Limitations

- The application currently supports only one sheet (Sheet).
- No option for deleting/updating previously added rows.
- Formatting is minimal; advanced invoice styling is not yet implemented.
- No PDF export option.

---

8. Future Enhancements

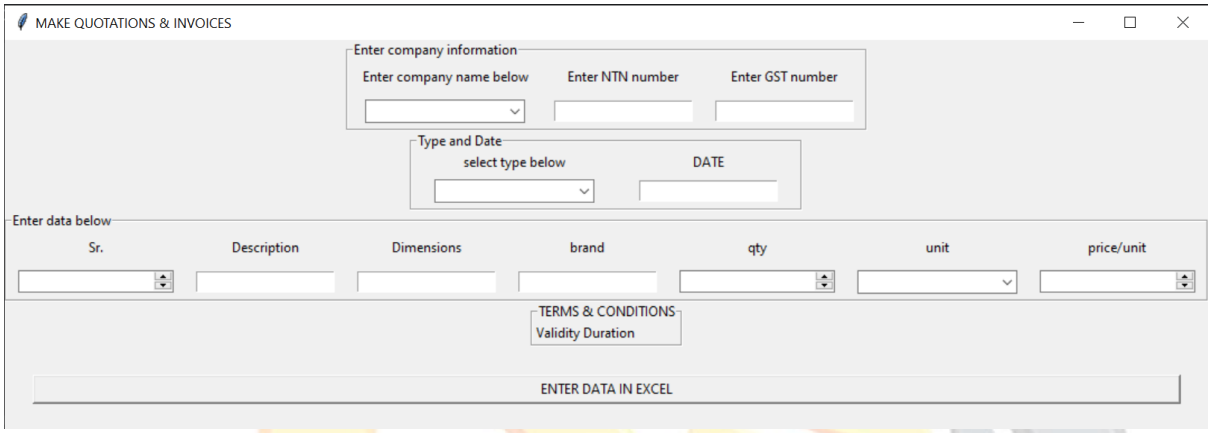
- Add customer details (Name, Contact, Address).
- Implement editing and deleting entries.
- Generate printable PDF invoices/quotations.
- Add GST/NTN automatic calculations for tax inclusion.
- Improve Excel formatting (borders, table styles, automatic total sum at bottom).
- Store multiple companies' data separately.

---

9. Conclusion

The project successfully demonstrates how Python can be used to create an automated invoicing and quotation system. It simplifies the business process by providing a simple GUI for input and storing structured records in Excel. With future improvements, the application can become a full-fledged billing system for small and medium enterprises.

Screenshot 1:



Screenshot 2:

Hassan Enterprises

Quotation							
ntn	9998989		gst	9238923891			
Date	10-06-2003						
Sr.	Descriptio	dimmensi	Brand	QTY	Unit	Price/unit	Total price
4	none	4	one	3	BOX	63	189
4	none	4	one	3	BOX	63	189
4	none	4	one	3	BOX	63	189
4	none	4	one	3	BOX	63	189
4	none	4	one	3	BOX	63	189
4	none	4	one	3	BOX	63	189
4	none	4	one	3	BOX	63	189
5	sdfjkkd	3	one	3	BOX	4	12
2	abcd	4	one	4	BOX	25	100