

## Introduction:

The Billing software using python is a simple yet effective Python application designed to facilitate the billing process for grocery stores. Developed using the Tkinter library, a standard GUI toolkit for Python, this project offers an intuitive graphical interface for both customers and store owners to manage transactions seamlessly.

In this project, users can input customer details such as name and phone number, along with the quantity of various grocery items purchased. The application then calculates the total bill amount, including taxes, providing a comprehensive overview of the transaction.

## Key Features:

1. **User-Friendly Interface:** The graphical user interface (GUI) makes it easy for users to navigate and input data effortlessly.
2. **Customer Details:** Customers can enter their name and phone number for record-keeping purposes.
3. **Itemized Billing:** The system allows users to specify the quantity of each grocery item purchased, enabling accurate billing.
4. **Automatic Calculation:** Total prices for food, grocery, and other items, along with their respective taxes, are calculated automatically, streamlining the billing process.
5. **Detailed Bill Generation:** The application generates a detailed bill listing all purchased items, quantities, prices, and the total amount payable.
6. **Clearing and Exiting:** Users have the option to clear the bill area to start afresh or exit the application once the transaction is complete

## Required Modules:

The code uses Tkinter, which is a standard Python library for creating GUI applications. Usually, Tkinter comes pre-installed with Python, so you shouldn't need to install anything extra if you're using a standard Python installation.

However, if you're using a version of Python where Tkinter is not included by default or if you encounter any issues, you may need to install Tkinter separately. Here's how you can install Tkinter depending on your operating system:

### For Windows:

Tkinter is typically included with the standard Python installation on Windows. If you're using Python from the official Python website (python.org), Tkinter should already be available.

### For macOS:

Tkinter is usually included with Python on macOS. You can install Python from the official Python website if you haven't already done so.

### For Linux (Debian/Ubuntu):

You can install Tkinter using the package manager. Open a terminal and run:

```
sudo apt-get update
```

```
sudo apt-get install python3-tk
```

Replace python3-tk with python-tk if you're using Python 2.

### How to run the code:

To run the code, you'll need Python installed on your system. Once you have Python installed, you can follow these steps:

1. Copy the entire code snippet into a Python file, for example, `grocery_billing_system.py`.
2. Save the file.
3. Open a terminal or command prompt.
4. Navigate to the directory where you saved the Python file using the `cd` command.
5. Run the Python file using the command:

```
python billing_software.py
```

If you're using Python 3, you might need to use `python3` instead of `python`.

6. After running the command, you should see the GUI window of the Grocery Billing System open up. You can interact with it as needed.
7. To exit the program, you can close the GUI window or click the "Exit" button

### Code Explanation:

This code creates a simple Grocery Billing System using Tkinter, a Python GUI library. Let's break down the code:

1. **Import Statements:** The code starts by importing necessary modules – `tkinter` for GUI and `random` for generating random bill numbers.
2. **Class Definition:** The `Bill_App` class is defined, which serves as the main application class.
3. **Initialization:** In the `__init__` method of the class, the GUI window is configured with a specific size, title, and components.
4. **Variable Initialization:** Several `StringVar` and `IntVar` variables are initialized to hold customer details and the quantity of various items purchased.
5. **GUI Layout:**
  - The layout is organized using `Label`, `Entry`, and `LabelFrame` widgets to represent different sections such as customer details, food items, grocery items, others, bill area, and buttons.

- Each section contains labels and entry fields to input data.
6. **Functions:**
- total: Calculates the total prices for food, grocery, and other items, along with their respective taxes.
  - welcome\_soft: Updates the text area with customer details and a header for the bill list.
  - clear: Clears the bill area.
  - bill\_area: Adds product names, quantities, and prices to the bill area.
  - exit: Closes the application window.
7. **Main Execution:**
- It creates an instance of the Tk class to create the application window.
  - An object of the Bill\_App class is created, passing the Tk instance.
  - The mainloop() method is called to start the GUI event loop.

## Output:

Billing Software

### Billing System

**Customer Details**

Customer Name  Contact No.  BILL.No.

Snacks	Grocery	Beauty & Hygiene
Nutella Choco Spread <input type="text" value="0"/>	Aashirvaad Atta(1kg) <input type="text" value="0"/>	Bathing Soap <input type="text" value="0"/>
Noodles(1 Pack) <input type="text" value="0"/>	Pasta(1kg) <input type="text" value="0"/>	Shampoo(1ltr) <input type="text" value="0"/>
Lays(10Rs) <input type="text" value="0"/>	Basmati Rice(1kg) <input type="text" value="0"/>	Body Lotion(1ltr) <input type="text" value="0"/>
Oreo(20Rs) <input type="text" value="0"/>	Sunflower Oil(1ltr) <input type="text" value="0"/>	Face Cream <input type="text" value="0"/>
Chocolate Muffin <input type="text" value="0"/>	Refined Sugar(1kg) <input type="text" value="0"/>	Shaving Foam <input type="text" value="0"/>
Dairy Milk Silk(60Rs) <input type="text" value="0"/>	Dal(1kg) <input type="text" value="0"/>	Face Mask(1piece) <input type="text" value="0"/>
Namkeen(15Rs) <input type="text" value="0"/>	Tea Powder(1kg) <input type="text" value="0"/>	Hand Sanitizer(50ml) <input type="text" value="0"/>

**Bill Area**

WELCOME TO SUPER MARKET  
Phone-No.739275410

Bill no. : 7553  
Customer Name :  
Phone No. :  
=====

Product	Qty	Price
=====		

**Billing Summary**

Total Snacks Price <input type="text"/>	Snacks Tax <input type="text"/>	Total Bill Clear Field Exit
Total Grocery Price <input type="text"/>	Grocery Tax <input type="text"/>	
Total Beauty & Hygiene Price <input type="text"/>	Beauty & Hygiene Tax <input type="text"/>	