

A Project Synopsis On
BILLING SOFTWARE USING PYTHON

Second Year of Engineering
In
Department of Electronics and Computer Science

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CERTIFICATE

This is to certify that the requirements for the BE Project entitled '**Billing Software Using Python**' have been successfully completed by the following students.

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In partial fulfilment of Bachelor of Engineering of Mumbai University in the Department of Electronics and Computer Science, Pillai College of Engineering, New Panvel – 410 206 during the Academic Year 2020-2021.

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DECLARATION

We declare that this written submission for Mini Project entitled “**Billing Software Using Python**” represents our ideas in our own words and where others' ideas or words have been included. We have adequately cited and referenced the original sources. We also declare that we have adhered to all principles of academic honesty and integrity and have not misrepresented or fabricated or falsified any ideas / data / fact / source in our submission. We understand that any violation of the above will cause disciplinary action by the institute and also evoke penal action from the sources which have not been properly cited or from whom prior permission has not been taken when needed.

Project Group

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Place:

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1. ABSTRACT

Billing Software is a project which aims in developing a computerized billing system to maintain all the billing work of a grocery shop. Billing System is a python based based project. We have developed Billing System using Python Tkinter. The main modules available in this project are Calculate total module which manages the functionality of total calculation of total module which manages the functionality of total calculation with tax. Generate bill is normally used for generating receipt of the bill, Search bill is used for searching previous bill of customer using bill number. The project is to create an application that should provide service to the user, collect user usage records, and generate invoices of each credit expire, each billing cycle depends on the billing type, collect payments and adjust customers' balances. The e-Billing system has the capacity to illustrate and analyze the basic billing system and the main functionalities that surround the billing system from a business prospective and explains how each interacts to complete the billing cycle. Also, development of a billing system emulator that is capable of can billing more quickly, accurately and update customer record and enables customer to view bill information. This Billing system can be deployed in a real world situation. For example, at the end of the day the program will be able to satisfied the under listed objectives that would bridge the gap on short coming in the billing system.

2. OBJECTIVE

The main objective of the Billing Software System is to calculate total, generate bill receipt and search previous bill using bill number. It manages all the bill information in a text file with a unique bill number. The project is totally built at administrative end and thus only the administrator is guaranteed the access. The purpose of the project is to build an application program to reduce the manual work for calculating bill in a shop. It provides easy interface to the admin user. Tax is also calculated in our project. Moving on, this simple billing system project in Python focuses mainly on dealing with customer's billing with their purchase quantity, and discount. At first, the system allows inserting the customer's name, then the user can simply enter the item's name and quantity he/she wants. After selecting all the product items, the system calculates the total payable bill with the expected discount percentage. Last but not least, this simple mini project; billing system in Python does not contain any additional libraries for the GUI aspect as everything runs using a command prompt or terminal.

3. GOALS

- Provides the searching facilities based on various factors.
- Such as bill number and customer contact number.
- It tracks the information of Customer
- Generate Receipt of Bill and store previous bills in a folder
- Tax is also calculated in our project.
- All the fields are validated and does not take invalid values
- To keep track of sales and payments received
- To manage cash effectively
- To prevent errors in the compilation of bills and invoices
- Optimisation of business processes

4. NEED OF THE SYSTEM

- There is always a need of a system that will perform easy billing calculation in a grocery store.
- This system will reduce the manual operation required to maintain all the bills. And also generates bill receipt with unique bill number.
- You'll need to collect your customer's name, billing address and terms of payment. You also need to document third-party payers such as insurance companies, and you'll need to verify this data. You'll also need to store product and service information, such as price, quantity and descriptions, in the billing system.

5. PURPOSE

- The purpose of Billing Software System is to automate the existing manual system by the help of computerized equipments and full fledged computer software, fulfilling their requirements, so that their valuable data/information can be stored for a longer period with easy accessing and manipulation of the same.
- This project helps in administrative work such as searching of bill and generate receipt of bill using using simple user friendly interface.
- A billing system includes procedures and processes that help create bills and invoices for customers. Nowadays, billing systems include software that allows transmitting bills and invoices to the customers offline and online.

6. PROJECT SCOPE & MODULES

- The project has a wide scope, as it is not intended to a particular organization. This project is going to develop generic software, which can be applied by any businesses organization. Moreover, it provides facility to its users. Also the software is going to provide a huge amount of summar data.

7. MODULES

- CALCULATE TOTAL
- CALCULATE TAX
- GENERATE BILL RECEIPT
- SEARCH BILL


8. FRONTEND (LANGUAGE USED) & SOFTWARE USED

FRONTEND


Tkinter is the standard GUI library for Python. Python when combined with Tkinter provides a fast and easy way to create GUI applications.

Tkinter provides a powerful object-oriented interface to the Tk GUI toolkit.


- **PYTHON (Tkinter)**



Python - Tkinter Canvas



- The Tkinter module is one of the most popular modules for writing GUI applications in Python.
- A Tkinter Canvas is an object which can contain various other objects, like text objects, images, etc.
- We can create a Canvas using the `tk.Canvas()` method



```
canvas = tk.Canvas(master, width, height)
```

FIG . 1 .PYTHON TKINTER

9.SOFTWARE USED & SNAPSHOTS OF WORKING PROJECT

- PYTHON INTERPRETER
- PYCHARM or VS CODE

SNAPSHOTS OF WORKING PROJECT

The screenshot shows a window titled "Billing System" with a standard Windows-style title bar. The interface is divided into several sections. At the top, there's a header area with the title "Billing System". Below this, the main content area is organized into two columns. The left column contains input fields for "Reference No" (value: BILL568420), "Date" (value: 16/05/22), "Paneer Burgers" (value: 1), "Chicken Burgers" (value: 2), "French Fries" (value: 1), and "Soft Drinks" (value: 2). The right column contains corresponding price fields: "Price of Paneer Burgers" (69), "Price of Chicken Burgers" (129), "Price of French Fries" (80), and "Price of Soft Drinks" (20). Below these, there are fields for "Price" (Rs 447), "Tax" (5), and "Total Price" (Rs 469). At the bottom right, there are four buttons: "Total Price", "Sales Reference", "Reset", and "PDF".

Item	Quantity	Price
Paneer Burgers	1	69
Chicken Burgers	2	129
French Fries	1	80
Soft Drinks	2	20

Field	Value
Reference No	BILL568420
Date	16/05/22
Price	Rs 447
Tax	5
Total Price	Rs 469

Button	Action
Total Price	Calculate Total
Sales Reference	Generate Reference
Reset	Reset Fields
PDF	Export to PDF

FIG .2 . FRONTEND OF THE BILLING SYSTEM

FoodnJOY

Reference No : BILL568420

Date : 16/05/22

ITEM	QTY	RATE
Paneer Burgers	1	69
Chicken Burgers	2	129
French Fries	1	80
Soft Drinks	2	20

Price : Rs 447

Tax : 5

Total Price : Rs 469

FIG . 3 . PDF OF THE BILLING SYSTEM

10. USE CASE

Use case diagram consists of use cases and actors and shows the interaction between them. The key points are:

- The main purpose is to show the interaction between the use cases and the actor.
- To represent the system requirement from user's perspective.
- The use cases are the functions that are to be performed in the module.
- An actor could be the end-user of the system or an external system.

11. CONCLUSION & FUTURE SCOPE

FUTURE SCOPE :

This desktop application involves almost all the basic features of the billing software. The future implementation will be help for admin to add and manage new products. This billing system focus on the development of an information system that will automate manual transaction in Beatriz Food and Cafe. The scope of a bill represents the reasonable limits of its collective purposes, as defined by its existing clauses and schedules. In particular cases, difficult questions of judgment may arise.

CONCLUSION :

The project entitled “Billing Software System” is developed using Python Tkinter as frontend to computerize the process of total calculation and bill generation.

This project only covers the basic features required.

12. REFERENCES

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