EBC PaperTrack

Newspaper Inventory Management System

Team

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List of Overview

Introduction & Problem Statement

Client: Ekanayake Book City (EBC), Polpithigama.

The Problem:

❖ The existing system for managing stock, processing orders, and handling advertisements is entirely manual.

❖ This manual process is time-consuming and leads to a high rate of human error.

The Solution:

❖ **EBC-PaperTrack, a standalone desktop application developed in Python, designed to automate and streamline EBC's core operations**

Project Objectives

❖ The primary goal is to develop a system that assists EBC in managing its daily operations efficiently.

❖ **Stock Management:**
  ➢ Maintain updated stock levels of newspapers and magazines.

❖ **Order Processing:**
  ➢ Accept and prepare customer orders for publications.

❖ **Customer Management:**
  ➢ Maintain a database of all customers and their details.
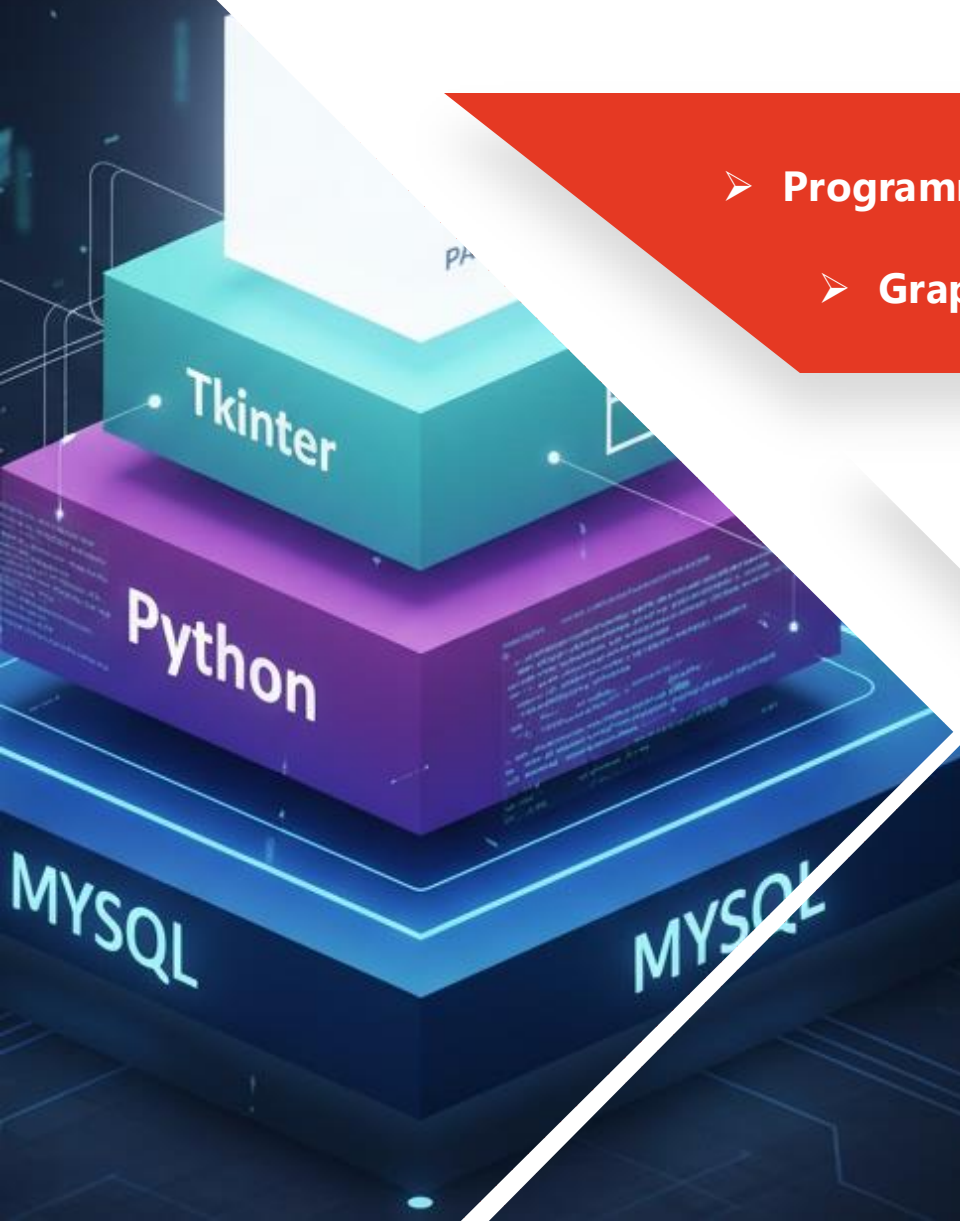
❖ **Advertisement Handling:**
  ➢ Manage the placement of newspaper advertisements.

❖ **Billing & Invoicing:**
  ➢ Automatically generate monthly bills for customers.

Technology Stack

> **Programming Language: Python**

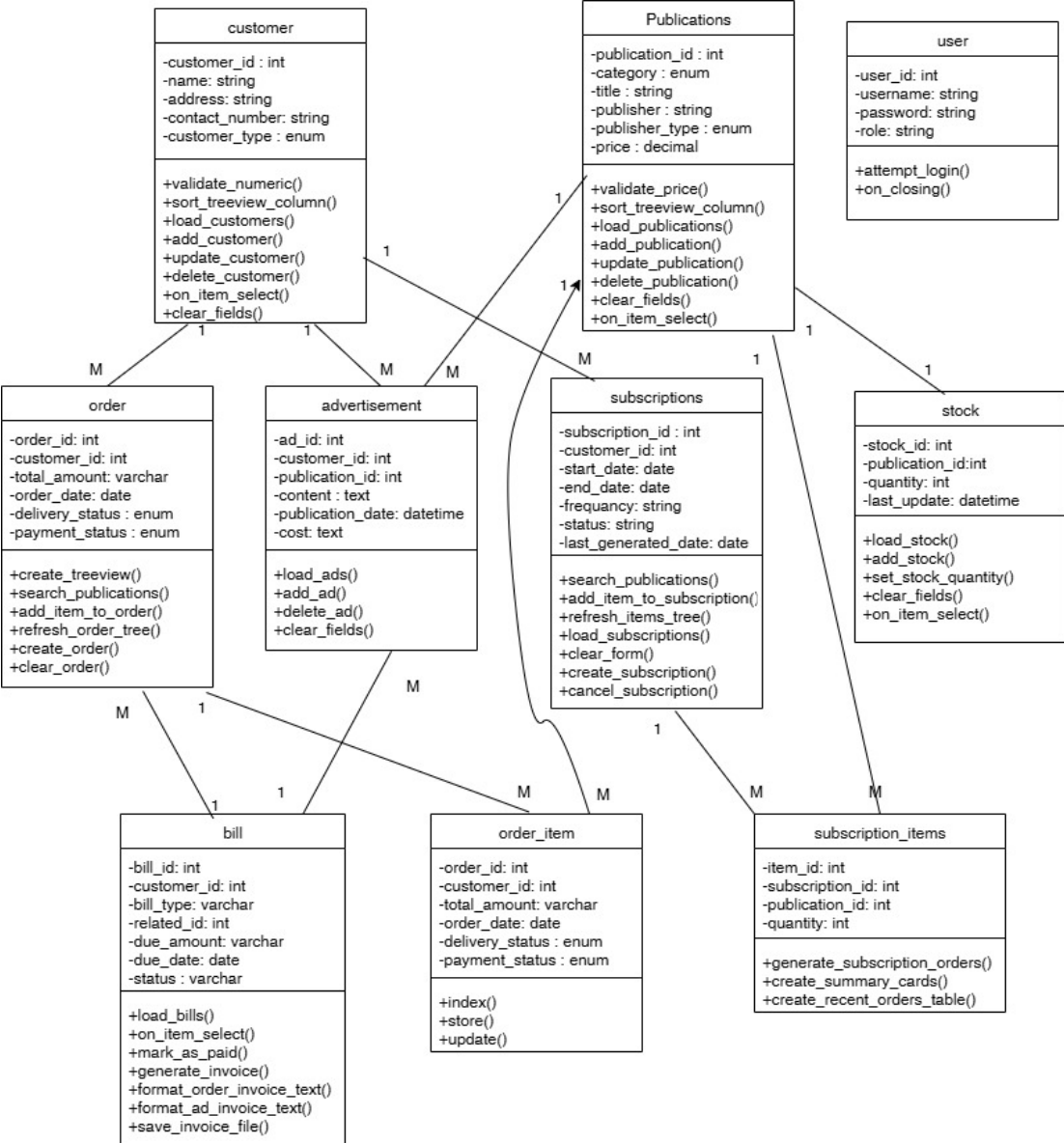> **Graphical User Interface (GUI): Tkinter, a built-in Python library**

> **Database: MySQL, an open-source relational database**
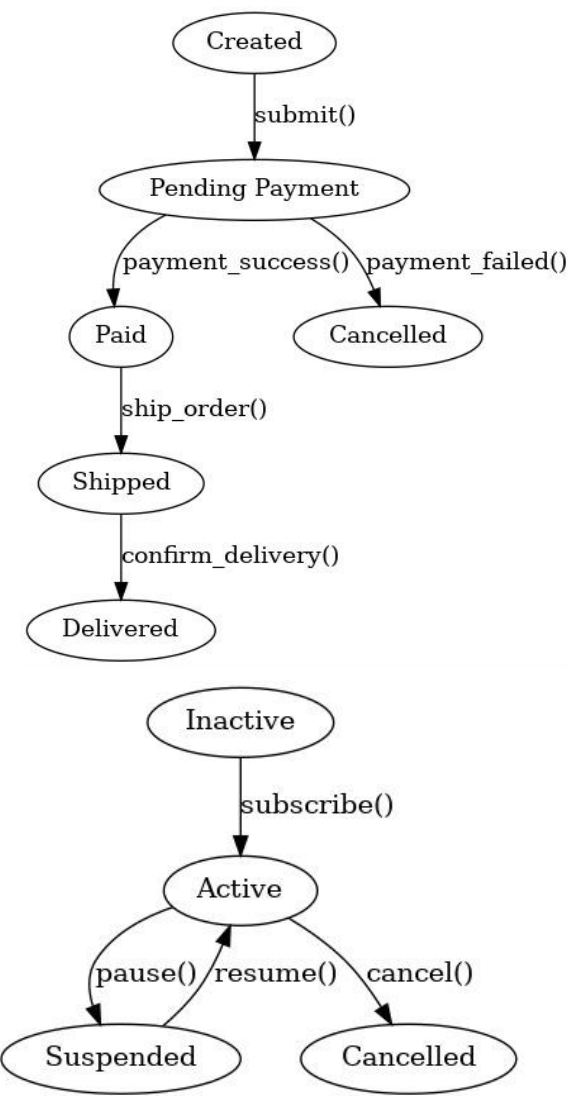
> **Diagram Design: Draw.io**

> **Collaboration Tools: Google Docs, Zoom**

> **Version Control System : GitHub**
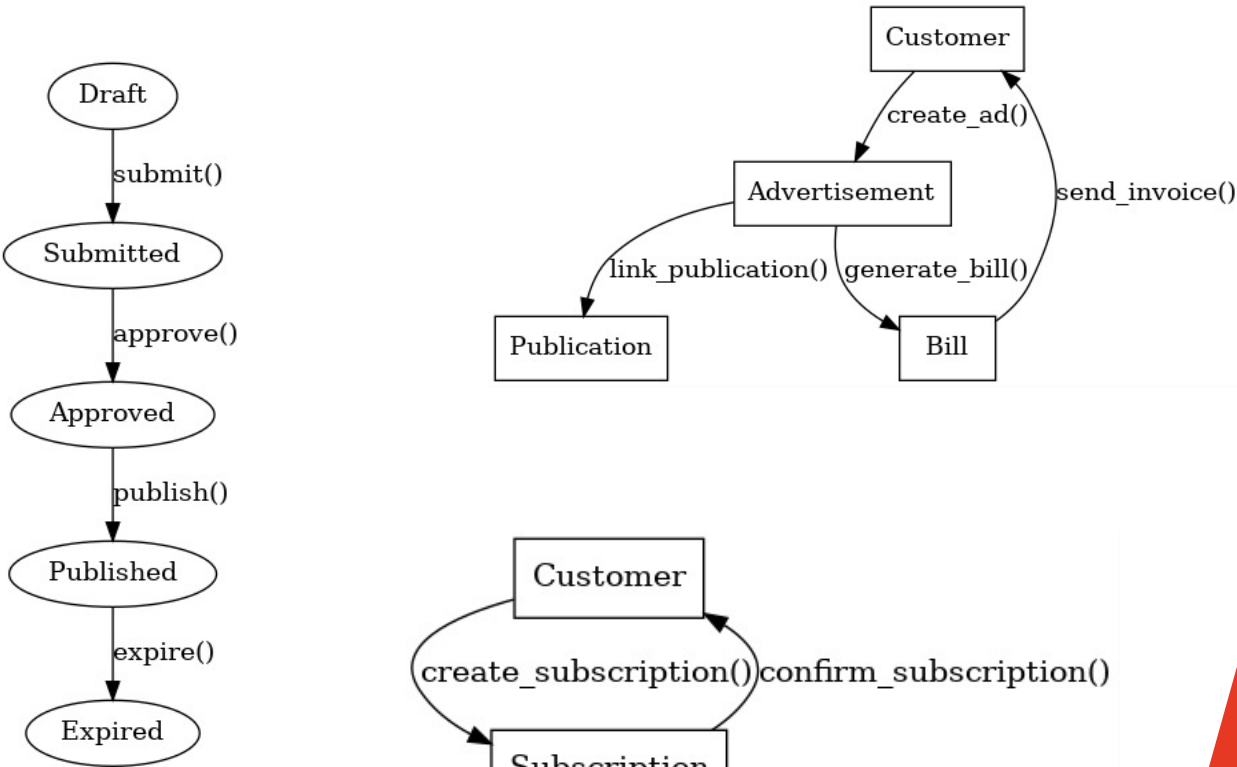
Class Diagram - Blueprint in object-oriented modelling
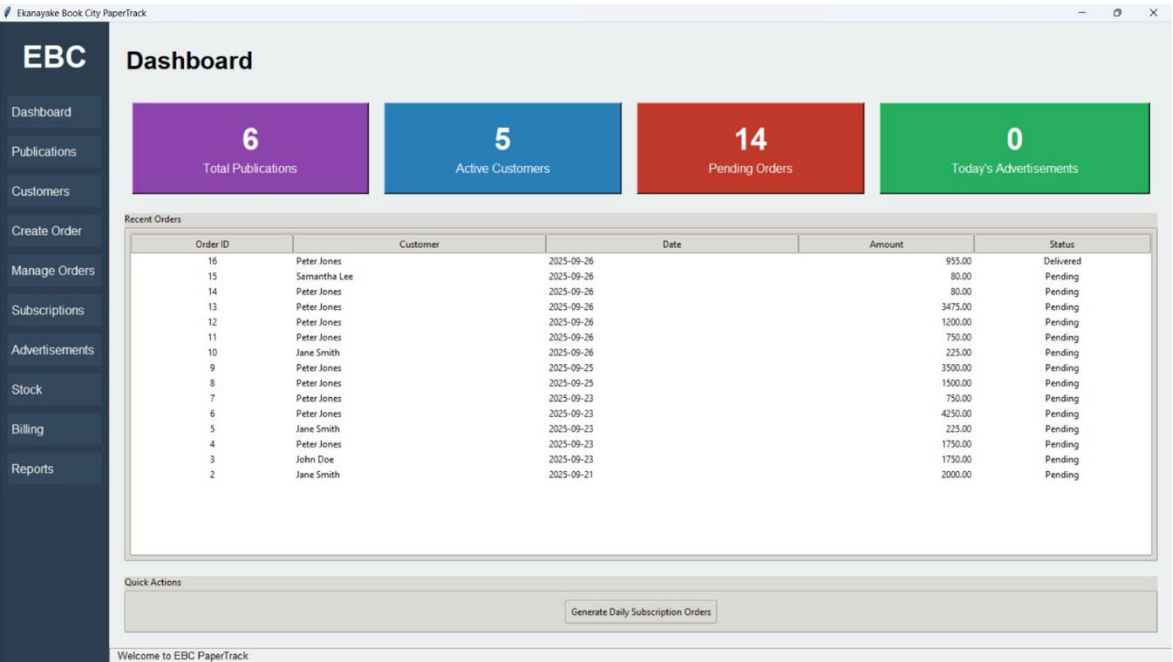
Other Diagrams

State Diagrams

Sequence Diagrams

Feature Showcase:
Dashboard

The dashboard serves as the landing page, offering a quick overview of the business status.

Feature Showcase:
Customer & Publication Management

Customer Management (customers_page.py):
- Add, update, and delete customer records.
- Fields include Name, Address, Contact Number, and Type (Daily/Weekly/Monthly).
- A selectable list displays all customers in the database.

Publication Management (publications_page.py):
- Add, update, and delete newspapers and magazines.
- Details include Category, Title, Publisher, Type (Daily, Weekly, etc.), and Price.

Feature Showcase:
Stock Management

This module provides a direct way to manage inventory levels.

Stock Management (stock_page.py):

- **View Current Stock:** Displays a comprehensive list of all publications along with their current quantity and the last updated timestamp.
- **Update Stock:** Users can select a publication and enter a new quantity to update the inventory level in the database.
- **Integrated Data:** The publication dropdown is populated directly from the publications table, ensuring data consistency

Feature Showcase:

Order Processing

A powerful interface designed to make the order creation process fast and accurate.

Order Creation (orders_page.py):

- **Select Customer:** Choose an existing customer from a dropdown list.
- **Search Publications:** Search for publications by name to find items quickly.
- **Add Items to Order:** Select a publication from the search results, specify a quantity, and add it to the current order basket.
- **Live Calculation:** The system displays all items in the current order and automatically calculates the running total amount.
- **Finalize Order:** Create the final order, which is then saved to the database along with its associated items.

Feature Showcase:
Advertisement & Billing Management

Advertisement Handling (advertisements_page.py)

- Select customer and publication, enter ad content.
- System auto-calculates cost by word count and asks for confirmation before saving.

Billing Management (billing_page.py)

- Lists all bills (orders + ads) with customer, amount, due date, and status.
- Users can mark unpaid bills as paid, updating the database.

Future Improvements

01 — **Mobile Accessibility:** Dedicated mobile application for remote access

02 — **Enhanced Notifications:** Email notifications and SMS alerts for critical updates and reminders.

03 — **Automated Payments:** Credit card auto-subscription for seamless recurring payments

04 — **Multi-User Support:** Enhance the system to be installed and used on multiple PCs within EBC

Thank You

Any Questions..?