

COLLEGE OF COMPUTING, INFORMATICS AND MATHEMATICS UNIVERSITI TEKNOLOGI MARA MERBOK, KEDAH

DIPLOMA IN LIBRARY INFORMATICS
(IM144)

PROGRAMMING FOR LIBRARIES
(IML208)

PROJECT NAME: STORE INVENTORY SYSTEM

PREPARED BY:
ANIS SYAZWANI BINTI ROZAINI

GROUP: CDIM1443D

PREPARED FOR:
SIR MOHD FIRDAUS BIN MOHD HELMI

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PROJECT NAME: Stationery Store Inventory System

FILE NAME: inventory.py

PROMPT DATA:

1. ID: for the item Id

2. Name: name of the item

3. Price: the cost for one item

4. Quantity: how many items of one product

FUNCTION

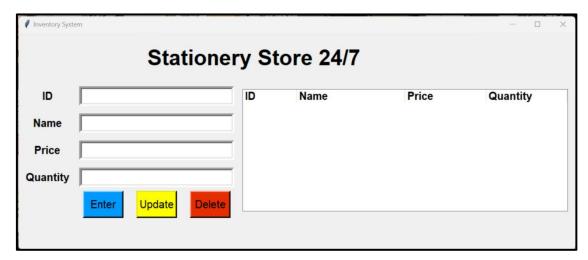
- 1. CREATE data
- 2. **READ** data
- 3. UPDATE data
- 4. **DELETE** data

CONDITIONAL STATEMENT: YES

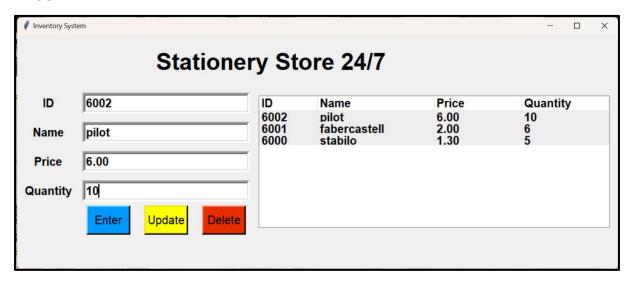
If-else statement

```
if itemId == ""or itemId ==" ":
    print("Error Inserting Id")
    if itemName == ""or itemName ==" ":
        print("Error Inserting Name")
    if itemPrice == ""or itemPrice ==" ":
        print("Error Inserting Price")
    if itemQuantity == ""or itemQuantity ==" ":
        print("Error Inserting Quantity")
    else:
        insert(str(itemId),str(itemName),str(itemPrice),str(itemQuantity))
```

GUI: YES



RESULT:



STRENGTH:

- **User-Friendly Interface:** The graphical user interface (GUI) built with Tkinter allows users to interact with the inventory system in a simple and user-friendly manner.
- **Basic CRUD Operations:** Users can insert, view, update, and delete inventory items using the system's basic CRUD (Create, Read, Update, Delete) operations.
- SQLite Database Integration: Using a SQLite database to store data is appropriate for small-scale applications. SQLite is a lightweight database that is simple to set up and configure.
- **Treeview for Data Display:** The Tkinter library's Treeview widget is used to display inventory data in a tabular format, allowing users to easily view and manage the data.
- Error Handling: Some basic error handling is included in the code, such as checking for empty or whitespace input when inserting data.
- Can list all the items available.
- Able to check the current prices of an item.
- The quantity left on the shelves and the quantity restocked.

KAIZEN (ROOM FOR IMPROVEMENT):

- **Validation of Input:** Increase the strength of input validation to ensure that only valid data is entered. Examine the data types, numerical ranges, and lengths.
- **Modularity and structure of the code:** Divide the code into modular functions with distinct responsibilities. This makes the code more maintainable and understandable.

- **User Reactions:** Provide informative messages or alerts for successful and unsuccessful operations to improve user feedback. Think about using pop-up messages or status bars.
- **Security Procedures:** Implement basic security measures such as input sanitization and SQL injection protection. Consider using parameterized queries for database operations rather than string concatenation.
- **Logging:** Implement logging to keep track of important system events, errors, and changes. This can help with system debugging and monitoring.
- Dialogs for Confirmation: Before performing critical operations such as deletion or updates, add confirmation dialogs. This can aid in the prevention of unintentional data loss.