UNIVERSITI TEKNOLOGI MARA

(UiTM) CAWANGAN KEDAH, KAMPUS SUNGAI PETANI

SCHOOL OF INFORMATION SCIENCE

[COLLEGE OF COMPUTING, INFORMATICS AND MATHEMATICS]

DIPLOMA IN LIBRARY INFORMATICS

(IM144)

[PROGRAMMING FOR LIBRARIES]

(IML208)

ASSIGNMENT 1: COMPUTER INTERFACE (CRUD) OPERATIONS

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First of all, I would like to thank myself for being committed to doing this individual project system. It is not easy as I am not an expert in this computer field even though it is a need for me to learn it in order to survive in this challenging and competitive environment.

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To those that help me directly or indirectly are also included in this appreciation. Thank you for the constructive comments.

STUDENT PLEDGE OF ACADEMIC INTEGRITY

As a student of Universiti Teknologi MARA (UiTM), it is my responsibility to act in accordance with UiTM's academic assessment and evaluation policy. I hereby pledge to act and uphold academic integrity and pursue scholarly activities in UiTM with honesty and responsible manner. I will not engage or tolerate acts of academic dishonesty, academic misconduct, or academic fraud including but not limited to:

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With this pledge, I am fully aware that I am obliged to conduct myself with utmost honesty and integrity. I fully understand that a disciplinary action can be taken against me if I, in any manner, violate this pledge

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*Students are required to sign one pledge for each course taken.

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PROJECT SUMMARIES

Project Name: Sport Equipments (Inventory)

File name : Inventory (Sport Equipments).py

Prompt Data :

   i.   Item Name
  ii.   Brand
 iii.   Price
 iv.   Stock

Function :

   i.   **Create data :**

```python
Inventory = {"Ball" : {"brand" : "Adidas", "price" : "400", "stock" : "2"}}

def create_item (name, brand, price, stock):
    Inventory[name] = {'brand' : brand, 'price': price, 'stock' : stock}
    result_label.config (text = f"Item {name} created with brand {brand}, price {price}, and stock {stock}")
```

Figure 1: Create Data

In this create data function, an employee (user) needs to key in, or prompt related to the sports data that may be found in this sport equipment system. After all the details are provided by the employee(user), the data of those items will be created and the other details such as brand, price and stock will be shown up too.

  ii.   **Read data :**

```python
def read_item (name, brand, price, stock):
    if name in Inventory:
        for name, details in Inventory.items ():
            result_label.config (text = f"Item: {name}\nBrand: {Inventory [name]['brand']}\nPrice: {Inventory [name]['price']}\nStock: {Inventory [name]['stock']}")
    else:
        result_label.config (text = f"Item is not found in inventory.")
```

Figure 2: Read Data

Function of read data will take place after employee(user) was done with the first step which is create data. The system will read all the given data by the users in order to retrieve the demand of sport equipment. If the item was found empty, it means the item is currently not available for the employee(user) to demand.

iii. Update data :

```
def update_item (name, stock, price):
    if name in Inventory:
        Inventory[name]['stock'] += stock
    if name in Inventory:
        Inventory[name]['price'] += price
        result_label.config (text = f"Updated stock for {name}. New stock: {Inventory [name] ['stock']}\nUpdated price for {name}. New price: {Inventory [name]['price']}")
    else:
        result_label.config (text = f"Item {name} not found in inventory.")
```

Figure 3: Update Data

For this function, selected data that will be updated are stock and price only after an employee input the item name. It can be lower and higher digits to be updated for the stock and price of the sport equipment. By this way, it is easier and faster to calculate the accurate number of stocks that are currently available and that will be added to the amount. It is efficient to update price if there are any changes to the market price due to any promotion or new price.

iv. Delete existing data :

```
def delete_item (name):
    if name in Inventory:
        del Inventory [name]
        result_label.config (text = f"Item{name} has been deleted from inventory.")
    else:
        result_label.config(text = f"Item {name} is not found in inventory.")
```

Figure 4: Delete Existing Data

Delete existing data are provided too. An employee can delete any data that exists from the inventory. It will save more space to add new data arrival. It is crucial to delete data if there are changes or no longer applicable to the items in the system.

Conditional Statement : Yes

If, elif, & else

This system contains conditional statements such as if & else. These conditional statements will give an option to the data that will be suitable for any given operations. Other than that, it will also give output to the employee (user) about the selected data.
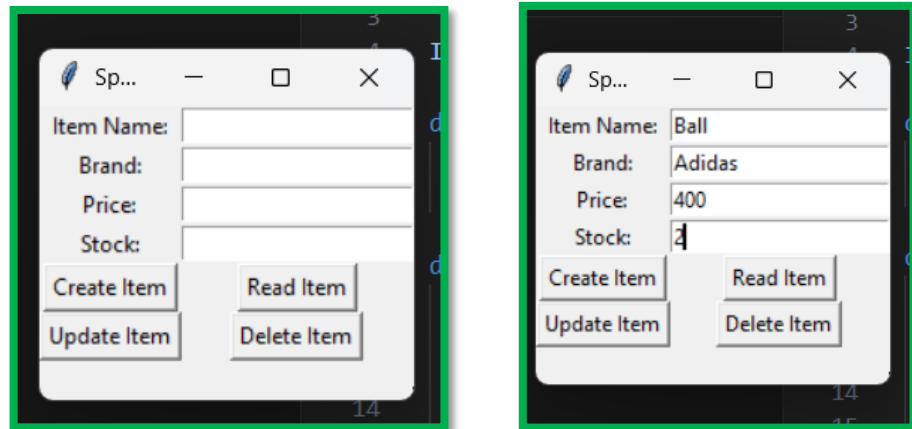
2

GUI : Yes

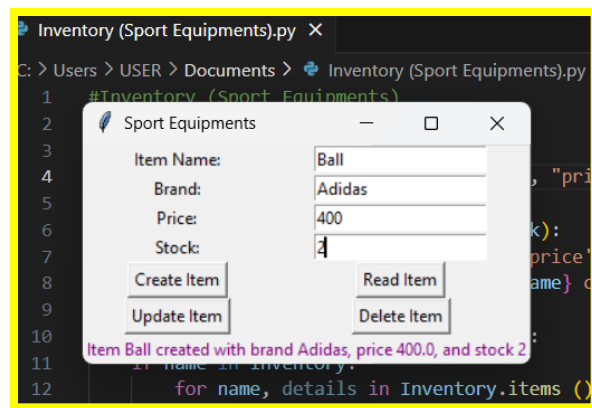*Figure 5: GUI Interface after user prompt data*

Result :

Create Data
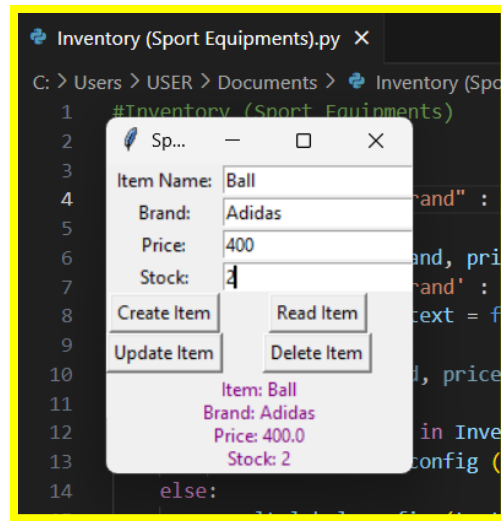

Figure 6: Result of Create Data

Read Data

Figure 7: Result of Read Data
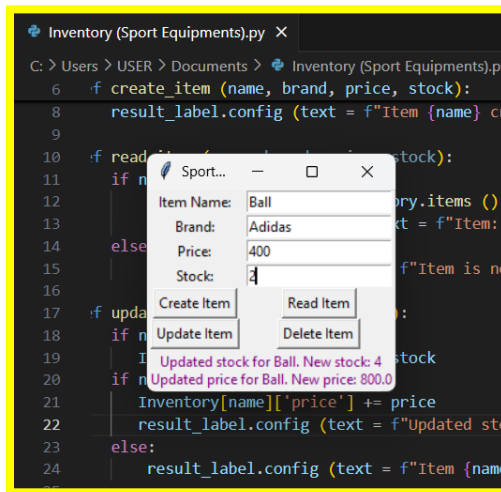
Update Data

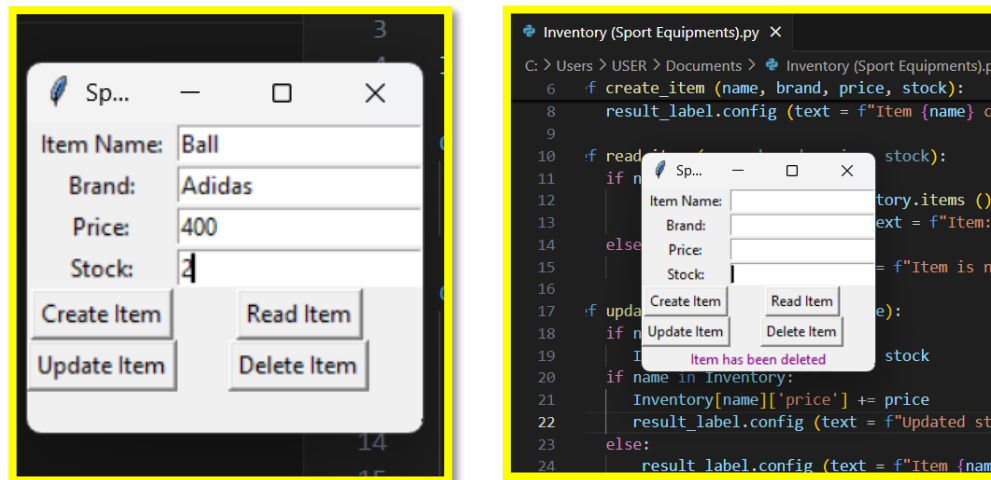*Figure 8: Result of Update Data*

Delete Existing Data

Figure 9: Result of Delete Existing Data

Strength:

1. An employee could easily input the data from writing it manually.
2. An automatically calculate all the possible stocks and prices that will need to be updated in the future.
3. Save their time from writing and calculate all the data manually.
4. High speed and high quality will not make customers wait for their demand of updates sport equipment that is currently available and not available.

Kaizen (Room for improvement)

1. Build an interactive interface like maybe put some background about sport equipment and display some in it.
2. Build login/sign up operations in the system.
3. Build more security measures such as username and password before an employee could login/sign up to the system.

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