

CUETO, ALEXA JOYCE G.

TW23

ACTIVITY 5: OOP AND EXCEPTION

Screenshots of results:

```
C:\CUETO> & "C:/Users/Alexa Cueto/AppData/Local/Programs/Python/Python313/python.exe"
```

```
--Item Management Application for Marketplace Items--
```

```
--Menu--
```

1. Add Item
2. Show All Items
3. Update Item
4. Delete Item
5. Exit

```
Enter your choice: 1
```

```
Enter ITEM ID (5 DIGITS): 12345
```

```
Enter Item Name: Egg
```

```
Enter Item Description: This is manufactured by Shelby's Farms.
```

```
Enter Item Price: PHP 80.00
```

```
Item 12345 added successfully.
```

```
--Item Management Application for Marketplace Items--
```

```
--Menu--
```

1. Add Item
2. Show All Items
3. Update Item
4. Delete Item
5. Exit

```
Enter your choice: 1
```

```
Enter ITEM ID (5 DIGITS): 12346
```

```
Enter Item Name: Butter
```

```
Enter Item Description: This is manufactured by Kenzo's Farms.
```

```
Enter Item Price: PHP 63.00
```

```
Item 12346 added successfully.
```

```
--Item Management Application for Marketplace Items--
```

```
--Menu--
```

1. Add Item
2. Show All Items
3. Update Item
4. Delete Item
5. Exit

```
Enter your choice: 1
```

```
Enter ITEM ID (5 DIGITS): 123456
```

```
Item ID must be 5 digits.
```

```
--Item Management Application for Marketplace Items--
```

```
--Menu--
```

1. Add Item
2. Show All Items
3. Update Item
4. Delete Item
5. Exit

```
Enter your choice: 2
```

```
--Items--
```

```
Item ID: 12345
```

```
Item Name: Egg
```

```
Item Description: This is manufactured by Shelby's Farms.
```

```
Item Price: 80.0
```

```
Item ID: 12346
```

```
Item Name: Butter
```

```
Item Description: This is manufactured by Kenzo's Farms.
```

```
Item Price: 63.0
```

--Item Management Application for Marketplace Items--

--Menu--

1. Add Item
2. Show All Items
3. Update Item
4. Delete Item
5. Exit

Enter your choice: 3

--Items--

Item ID: 12345

Item Name: Egg

Item Description: This is manufactured by Shelby's Farms.

Item Price: 80.0

Item ID: 12346

Item Name: Butter

Item Description: This is manufactured by Kenzo's Farms.

Item Price: 63.0

Enter Item ID to update (5 DIGITS): 12346

Enter new name [Leave blank to retain current value]:

Enter new description [Leave blank to retain current value]:

Enter new price [Leave blank to retain current value]: PHP 70.00

Item 12346 updated successfully.

--Item Management Application for Marketplace Items--

--Menu--

1. Add Item
2. Show All Items
3. Update Item
4. Delete Item
5. Exit

Enter your choice: 2

--Items--

Item ID: 12345

Item Name: Egg

Item Description: This is manufactured by Shelby's Farms.

Item Price: 80.0

Item ID: 12346

Item Name: Butter

Item Description: This is manufactured by Kenzo's Farms.

Item Price: 70.0

--Item Management Application for Marketplace Items--

--Menu--

1. Add Item
2. Show All Items
3. Update Item
4. Delete Item
5. Exit

Enter your choice: 3

--Items--

Item ID: 12345

Item Name: Egg

Item Description: This is manufactured by Shelby's Farms.

Item Price: 80.0

Item ID: 12346

Item Name: Butter

Item Description: This is manufactured by Kenzo's Farms.

Item Price: 70.0

Enter Item ID to update (5 DIGITS): 12567

Item ID does not exist.

--Item Management Application for Marketplace Items--

--Menu--

1. Add Item
2. Show All Items
3. Update Item
4. Delete Item
5. Exit

Enter your choice: 4

--Items--

Item ID: 12345

Item Name: Egg

Item Description: This is manufactured by Shelby's Farms.

Item Price: 80.0

Item ID: 12346

Item Name: Butter

Item Description: This is manufactured by Kenzo's Farms.

Item Price: 70.0

Enter Item ID to delete (5 DIGITS): 12345

Item 12345 deleted successfully.

--Item Management Application for Marketplace Items--

--Menu--

1. Add Item
2. Show All Items
3. Update Item
4. Delete Item
5. Exit

Enter your choice: 2

--Items--

Item ID: 12346

Item Name: Butter

Item Description: This is manufactured by Kenzo's Farms.

Item Price: 70.0

--Item Management Application for Marketplace Items--

--Menu--

1. Add Item
2. Show All Items
3. Update Item
4. Delete Item
5. Exit

Enter your choice: 4

--Items--

Item ID: 12346

Item Name: Butter

Item Description: This is manufactured by Kenzo's Farms.

Item Price: 70.0

Enter Item ID to delete (5 DIGITS): 12367

Item ID does not exist.

--Item Management Application for Marketplace Items--

--Menu--

1. Add Item
2. Show All Items
3. Update Item
4. Delete Item
5. Exit

Enter your choice: 4

--Items--

Item ID: 12346

Item Name: Butter

Item Description: This is manufactured by Kenzo's Farms.

Item Price: 70.0

Enter Item ID to delete (5 DIGITS): 12346

Item 12346 deleted successfully.

--Item Management Application for Marketplace Items--

--Menu--

1. Add Item
2. Show All Items
3. Update Item
4. Delete Item
5. Exit

Enter your choice: 2

No items to show.

--Item Management Application for Marketplace Items--

--Menu--

1. Add Item
2. Show All Items
3. Update Item
4. Delete Item
5. Exit

Enter your choice: 5

Thank you for using the program!

Source Code:

```
#CUETO, ALEXA JOYCE G
#TW23
#OOP and Exception

class Item:

    def __init__(self, itemID, itemName, itemDesc, itemPrice):
        #constructor

        self.itemID = itemID #self is the instance of item class
        self.itemName = itemName
        self.itemDesc = itemDesc
        self.itemPrice = itemPrice

    def __str__(self): #string representation of the object
        return f"\n\t\tItem ID: {self.itemID}\n\t\tItem Name:
{self.itemName}\n\t\tItem Description: {self.itemDesc}\n\t\tItem
Price: {self.itemPrice}"

items ={}

def mainMenu():
    while True:

        print("\n\t\t--Item Management Application for
Marketplace Items--")

        print("\n\t\t--Menu--")
        print("\t\t1. Add Item")
        print("\t\t2. Show All Items")
        print("\t\t3. Update Item")
        print("\t\t4. Delete Item")
        print("\t\t5. Exit")
```

```

choice = input("\t\tEnter your choice: ")

if choice == "1":
    addItem()
elif choice == "2":
    showAllItems()
elif choice == "3":
    updateItem()
elif choice == "4":
    deleteItem()
elif choice == "5":
    print("\t\tThank you for using the program!")
    break
else:
    print("\t\tInvalid choice. Try again.")

```

```

def addItem():
    try: #exception handling
        itemID =int(input("\n\t\tEnter ITEM ID (5 DIGITS): "))
        #inputs ID from user
        if itemID in items: #checks if the ID already exists
            print("\t\tItem ID already exists.")
            return None

    if len(str(itemID)) != 5: #checks if the ID is not 5
    digits
        print("\t\tItem ID must be 5 digits.")
        return None

```

```

name = input("\t\tEnter Item Name: ")
if name == "": #checks if the name is empty
    print("\t\tItem Name cannot be empty.")
    return None

description = input("\t\tEnter Item Description: ")
if description == "": #checks if the description is
empty
    print("\t\tItem Description cannot be empty.")
    return None

price = float(input("\t\tEnter Item Price: PHP "))
if price <= 0.00: #checks if the price is less than or
equal to zero
    print("\t\tItem Price must be greater than zero.")
    return None

items[itemID] = Item(itemID, name, description, price)
#adds the item to the dictionary
    print("\t\tItem ", itemID, " added successfully.")

except ValueError:
    print("\t\tInvalid input. Please enter a valid value.")
    return None

def showAllItems():
    if not items:
        print("\t\tNo items to show.") #checks if there are no
items to show
        return None

```



```

else:
    print("\n\t\t--Items--")
    for itemID in items:
        print(items[itemID]) #prints the items

def updateItem():
    print("\n\t\t--Items--")
    for itemID in items:
        print(items[itemID]) #prints the items

    itemID = int(input("\n\t\tEnter Item ID to update (5
DIGITS): "))

    if itemID not in items:
        print("\t\tItem ID does not exist.")
        return None

    if len(str(itemID)) != 5:
        print("\t\tItem ID must be 5 digits.")
        return None

    try:
        name = input("\t\tEnter new name [Leave blank to retain
current value]: ")
        if name:
            items[itemID].itemName = name

        description = input("\t\tEnter new description [Leave
blank to retain current value]: ")
        if description:

```

```

        items[itemID].itemDesc = description

    price = input("\t\tEnter new price [Leave blank to
retain current value]: PHP ")

    if price:
        price = float(price)
        if price <= 0.00:
            print("\t\tItem Price must be greater than
zero.")

            return None

        items[itemID].itemPrice = price

    print("\t\tItem ", itemID, " updated successfully.")
except ValueError:
    print("\t\tInvalid input. Please enter a valid value.")
    return None


def deleteItem():
    print("\n\t\t--Items--")
    for itemID in items:
        print(items[itemID]) #prints the items

    itemID =int(input("\n\t\tEnter Item ID to delete (5 DIGITS):
"))

    if itemID in items:
        del items[itemID]
        print("\t\tItem ", itemID, " deleted successfully.")
    else:
        print("\t\tItem ID does not exist.")
        return None

```

```
if len(str(itemID)) != 5:  
    print("\t\tItem ID must be 5 digits.")  
    return None
```

```
mainMenu()
```