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**Code:**

```
class Product:

    def __init__(self, name, price, stock):
        self.name: str = name
        self.price: float = price
        self.stock: int = stock

    def update_stock(self, quantity):
        self.stock += quantity

    def __str__(self):
        return f"Product: {self.name}, Price: ${self.price:.2f}, Stock: {self.stock}"

# Dictionary to store products
products = {}

while True:

    print("MENU\n1. Add Product\n2. Update Stock\n3. View Product Details\n4. Exit System")

    choice = input("Enter your choice: ")

    if choice == '1':
        name = input("Enter product name: ")
        price = float(input("Enter product price: "))
        stock = int(input("Enter product stock: "))
        products[name] = Product(name, price, stock)
        print("Product added successfully!")

    elif choice == '2':
        name = input("Enter product name to update: ")
        if name in products:
```

```
        quantity = int(input("Enter quantity to add/remove (positive to add, negative to remove): "))
```

```
        products[name].update_stock(quantity  
) print("Stock updated successfully!")
```

```
    else:
```

```
        print("Product not found.")
```

```
elif choice == '3':
```

```
    name = input("Enter product name:
```

```
    ") if name in products:
```

```
        print(products[name])
```

```
    else:
```

```
        print("Product not found.")
```

```
elif choice == '4':
```

```
    print("Exiting the system.
```

```
    Goodbye!") break
```

```
else:
```

```
    print("Invalid choice. Please try again.")
```

## Output:

```
➡ MENU  
  1. Add Product  
  2. Update Stock  
  3. View Product Details  
  4. Exit System  
Enter your choice: 1  
Enter product name: Laptop  
Enter product price: 850  
Enter product stock: 27  
Product added successfully!  
MENU
```

MENU

1. Add Product
2. Update Stock
3. View Product Details
4. Exit System

Enter your choice: 3

Enter product name: Laptop

Product: Laptop, Price: \$850.00, Stock: 27

MENU

1. Add Product
2. Update Stock
3. View Product Details
4. Exit System

Enter your choice: 2

Enter product name to update: Laptop

Enter quantity to add/remove (positive to add, negative to remove): 5

Stock updated successfully!

MENU

1. Add Product
2. Update Stock
3. View Product Details
4. Exit System

Enter your choice: 3

Enter product name: Laptop

Product: Laptop, Price: \$850.00, Stock: 32

MENU

1. Add Product
2. Update Stock
3. View Product Details
4. Exit System

Enter your choice: 1

Enter product name: Mobile

Enter product price: 220

Enter product stock: 42

Product added successfully!

MENU

\*\*\*\*\*

1. Add Product
2. Update Stock
3. View Product Details
4. Exit System

Enter your choice: Laptop

Invalid choice. Please try again.

MENU

1. Add Product
2. Update Stock
3. View Product Details
4. Exit System

Enter your choice: 3

Enter product name: Laptop

Product: Laptop, Price: \$850.00, Stock: 32

MENU

1. Add Product
2. Update Stock
3. View Product Details
4. Exit System

Enter your choice: 2

Enter product name to update: Laptop  
Enter quantity to add/remove (positive to add, negative to remove): -2  
Stock updated successfully!  
MENU  
1. Add Product  
2. Update Stock  
3. View Product Details  
4. Exit System  
Enter your choice: 3  
Enter product name: Laptop  
Product: Laptop, Price: \$850.00, Stock: 30  
MENU  
1. Add Product  
2. Update Stock  
3. View Product Details  
4. Exit System  
Enter your choice: 4  
Exiting the system. Goodbye!