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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':
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        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

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!