**TASK THREE: INVENTORY MANAGEMENT SYSTEM**

**Q.No.2:-Build a Python program to manage inventory for a store or warehouse. The system should**

**allow users to add, edit, and delete products, track inventory levels, and generate reports**

**such as low- stock alerts or sales summaries. Implement features like user authentication,**

**data validation, and graphical user interface (GUI) for better usability.**

**Ans:-**

**import pandas as pd**

**class Inventory:**

**def \_\_init\_\_(self):**

**self.products = []**

**self.quantities = []**

**def add\_product(self, product, quantity):**

**self.products.append(product)**

**self.quantities.append(quantity)**

**def update\_quantity(self, product, quantity):**

**index = self.products.index(product)**

**self.quantities[index] = quantity**

**def generate\_report(self):**

**data = {'Product': self.products, 'Quantity': self.quantities}**

**df = pd.DataFrame(data)**

**df.to\_csv('inventory\_report.csv', index=False)**

**print("Inventory report generated successfully!")**

**# Create an instance of the Inventory class**

**inventory = Inventory()**

**# Add example products and quantities**

**inventory.add\_product('Widget A', 100)**

**inventory.add\_product('Widget B', 50)**

**inventory.add\_product('Widget C', 200)**

**# Update quantity of a product**

**inventory.update\_quantity('Widget A', 50)**

**# Generate the inventory report**

**inventory.generate\_report()**

**Output:-**

**Product,Quantity**

**Widget A,50**

**Widget B,50**

**Widget C,200**