

```
import csv

# Initialize data structures
product_details = []
supplier_details = {}
customer_details = []
female_customers = 0

# Read data from file
with open('/content/Sales1.csv', 'r') as file:
    reader = csv.reader(file)
    next(reader) # Skip header row

    # Process each row in the file
    for row in reader:
        # Extract data from the row
        product_id, product, supplier, customer, gender = row

        # Store product details in a list
        product_details.append(product)

        # Store supplier details in a dictionary
        if supplier not in supplier_details:
            supplier_details[supplier] = 1
        else:
            supplier_details[supplier] += 1

        # Store customer details in a tuple
        customer_details.append((customer, gender))

    # Count female customers
```

```
if gender.lower() == 'female':  
    female_customers += 1  
  
# Find the most popular product for sale  
popular_product = max(set(product_details), key=product_details.count)  
  
# Find the best supplier for sales  
best_supplier = max(supplier_details, key=supplier_details.get)  
  
# Find the customer who buys most of the products  
customer_purchase_counts = {}  
for customer, _ in customer_details:  
    if customer not in customer_purchase_counts:  
        customer_purchase_counts[customer] = 1  
    else:  
        customer_purchase_counts[customer] += 1  
  
most_purchases = max(customer_purchase_counts, key=customer_purchase_counts.get)  
  
# Print the results  
print("Most popular product for sale:", popular_product)  
print("Best supplier for sales:", best_supplier)  
print("Customer who buys most products:", most_purchases)  
print("Number of female customers:", female_customers)
```

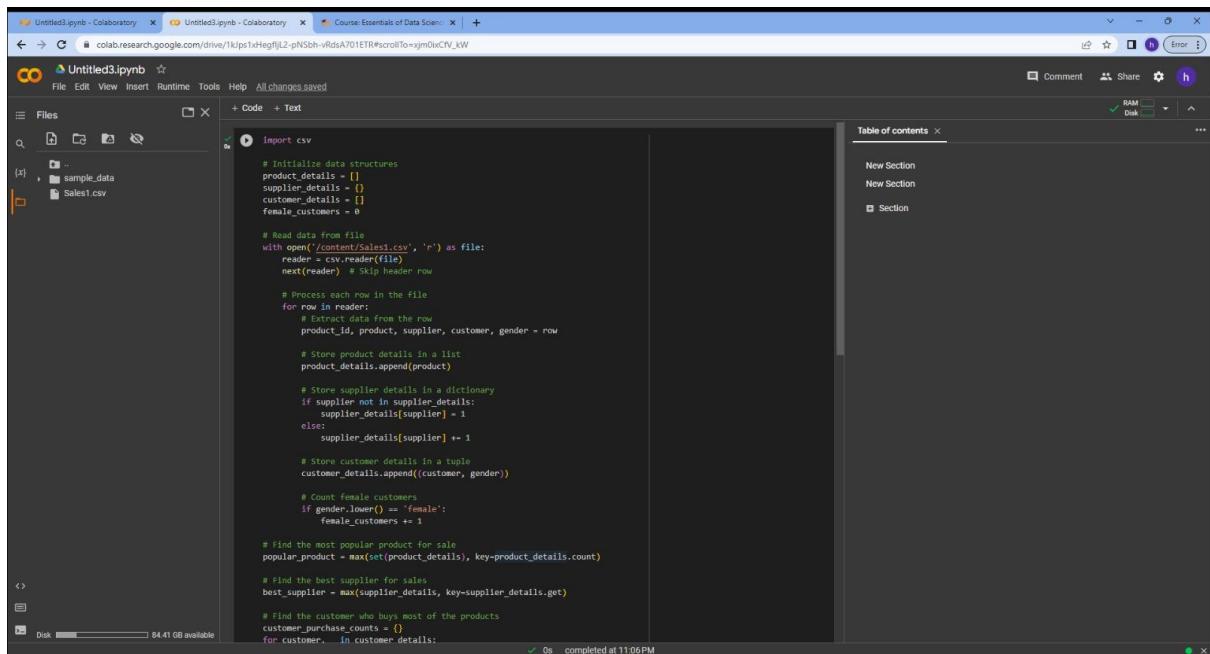
## Output

Most popular product for sale: Lenovo Laptop

Best supplier for sales: Raka Ele.

Customer who buys most products: Kaustubh Mahajan

Number of female customers: 6



The screenshot shows a Google Colab notebook titled "Untitled3.ipynb". The code cell contains Python code for reading a CSV file, processing its data, and performing various analyses. The code includes imports, data reading, product processing, supplier tracking, customer tracking, and final output calculations. The Colab interface also shows a sidebar with a "Table of contents" section containing "New Section", "New Section", and "Section". The status bar at the bottom indicates "0s completed at 11:06PM".

```
# Import csv
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# Initialize data structures
product_details = []
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customer_details = {}
female_customers = 0

# Read data from file
with open('/content/Sales1.csv', 'r') as file:
    reader = csv.reader(file)
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    # Process each row in the file
    for row in reader:
        # Extract data from the row
        product_id, product, supplier, customer, gender = row

        # Store product details in a list
        product_details.append(product)

        # Store supplier details in a dictionary
        if supplier not in supplier_details:
            supplier_details[supplier] = 1
        else:
            supplier_details[supplier] += 1

        # Store customer details in a tuple
        customer_details.append((customer, gender))

    # Count female customers
    for gender in customer_details:
        if gender.lower() == 'female':
            female_customers += 1

    # Find the most popular product for sale
    popular_product = max(set(product_details), key=product_details.count)

    # Find the best supplier for sales
    best_supplier = max(supplier_details, key=supplier_details.get)

    # Find the customer who buys most of the products
    customer_purchase_counts = {}
    for customer in customer_details:
        if customer[0] in customer_purchase_counts:
            customer_purchase_counts[customer[0]] += 1
        else:
            customer_purchase_counts[customer[0]] = 1

    # Output results
    print(f"Most popular product for sale: {popular_product}")
    print(f"Best supplier for sales: {best_supplier}")
    print(f"Customer who buys most products: {max(customer_purchase_counts, key=customer_purchase_counts.get)}")
    print(f"Number of female customers: {female_customers}")
```

The screenshot shows a Google Colab interface with a dark theme. The main area displays a Python script named 'Untitled3.ipynb'. The code performs several operations on CSV files ('sample\_data' and 'Sales1.csv') to calculate product popularity, supplier sales, customer purchase counts, and female customer counts. It then prints the results. A 'Table of contents' sidebar on the right shows sections like 'New Section' and 'Section'. A status bar at the bottom indicates '0s completed at 11:06PM'. A floating window in the bottom right corner shows a OneDrive screenshot saved message.

```
# Store product details in a list
product_details = []
for row in sample_data:
    product = {}
    product['name'] = row[0]
    product['category'] = row[1]
    product['supplier'] = row[2]
    product['quantity'] = int(row[3])
    product['price'] = float(row[4])
    product['details'] = row[5]
    product_details.append(product)

# Store supplier details in a dictionary
supplier_details = {}
for row in Sales1.csv:
    if row['Supplier'] not in supplier_details:
        supplier_details[row['Supplier']] = 1
    else:
        supplier_details[row['Supplier']] += 1

# Store customer details in a tuple
customer_details = []
for row in Sales1.csv:
    customer = (row['Customer'], row['Gender'])
    customer_details.append(customer)

# Count female customers
female_customers = 0
for gender in customer_details:
    if gender[1].lower() == 'female':
        female_customers += 1

# Find the most popular product for sale
popular_product = max(product_details, key=product_details.get)

# Find the best supplier for sales
best_supplier = max(supplier_details, key=supplier_details.get)

# Find the customer who buys most of the products
customer_purchase_counts = {}
for customer, gender in customer_details:
    if customer not in customer_purchase_counts:
        customer_purchase_counts[customer] = 1
    else:
        customer_purchase_counts[customer] += 1

most_purchases = max(customer_purchase_counts, key=customer_purchase_counts.get)

# Print the results
print("Most popular product for sale: ", popular_product)
print("Best supplier for sales: ", best_supplier)
print("Customer who buys most products: ", most_purchases)
print("Number of female customers: ", female_customers)
```