

Step 1: Define Classes

class Customer:

"""Represents a customer who places an order."""

def __init__(self, customer_id, name, contact_info, address):

"""Initialize Customer attributes."""

self.customer_id = customer_id

self.name = name

self.contact_info = contact_info

self.address = address

class Order:

"""Represents an order placed by a customer."""

def __init__(self, order_number, order_date, items, total_cost, status):

"""Initialize Order attributes."""

self.order_number = order_number

self.order_date = order_date

self.items = items

self.total_cost = total_cost

self.status = status

class DeliveryNote:

"""Represents a delivery note generated for an order."""

def __init__(self, note_number, order, date_issued, delivery_method, delivery_status):

"""Initialize DeliveryNote attributes."""

self.note_number = note_number

self.order = order

self.date_issued = date_issued

self.delivery_method = delivery_method

self.delivery_status = delivery_status

class Notification:

```
"""Represents a notification sent to the customer about an order update."""
```

```
def __init__(self, notification_id, message, date_sent, recipient):
```

```
    """Initialize Notification attributes."""
```

```
    self.notification_id = notification_id
```

```
    self.message = message
```

```
    self.date_sent = date_sent
```

```
    self.recipient = recipient
```

```
# Step 2: Create Objects
```

```
customer = Customer(1001, "Shaikha Rashed", "shaikha@example.com", "Dubai, UAE")
```

```
order = Order(
```

```
    order_number=5001,
```

```
    order_date="2025-03-01",
```

```
    items=["Camera", "Tripod", "Memory Card"],
```

```
    total_cost=3200.75,
```

```
    status="Shipped"
```

```
)
```

```
delivery_note = DeliveryNote(
```

```
    note_number=2001,
```

```
    order=order,
```

```
    date_issued="2025-03-02",
```

```
    delivery_method="Courier",
```

```
    delivery_status="Out for Delivery"
```

```
)
```

```
notification = Notification(
```

```
    notification_id=3001,
```

```
    message="Your order is out for delivery!",
```

```
    date_sent="2025-03-02",
```

```

    recipient="shaikha@example.com"
)

# Step 3: Generate and Display Delivery Note
def generate_delivery_note():
    """Displays a formatted delivery note using object data."""

    print("=" * 40)
    print("      DELIVERY NOTE")
    print("=" * 40)

    # Delivery note details
    print(f"Delivery Note Number: {delivery_note.note_number}")
    print(f>Date Issued: {delivery_note.date_issued}")
    print(f"Delivery Method: {delivery_note.delivery_method}")
    print(f"Delivery Status: {delivery_note.delivery_status}")

    # Customer details
    print("\nCustomer Details:")
    print(f>Name: {customer.name}")
    print(f>Contact: {customer.contact_info}")
    print(f"Address: {customer.address}")

    # Order details
    print("\nOrder Details:")
    print(f"Order Number: {order.order_number}")
    print(f"Order Date: {order.order_date}")
    print(f"Items: {' '.join(order.items)}")
    print(f>Total Cost: AED {order.total_cost:.2f}")
    print(f"Order Status: {order.status}")

```

```
# Notification details
```

```
print("\nNotification Sent:")
```

```
print(f"Message: {notification.message}")
```

```
print(f"Date Sent: {notification.date_sent}")
```

```
print("=" * 40)
```

```
# Step 4: Call the function to display the delivery note
```

```
generate_delivery_note()
```