

Aim:

To develop a system using UML for BPO management system. The system should hold the details of the customer and all approaches to it. It is managed by the central system.

Procedure:

- 1) Define Use Case: Identify actors and create use case diagrams to illustrate system interactions for major functions like customer inquiries and data management.
- 2) Define main class and establish relationships and associations, including attributes and methods.
- 3) Detail interactions between objects over time for each use case showing the sequence of messages exchanged to accomplish tasks.
- 4) Model workflows and represent the flow of activities within the system for each use, detailing steps for process like handling customer inquiries.
- 5) Define object state and illustrate transitions between states based on event and conditions.
- 6) Identify main system components and illustrate their interactions and dependence.

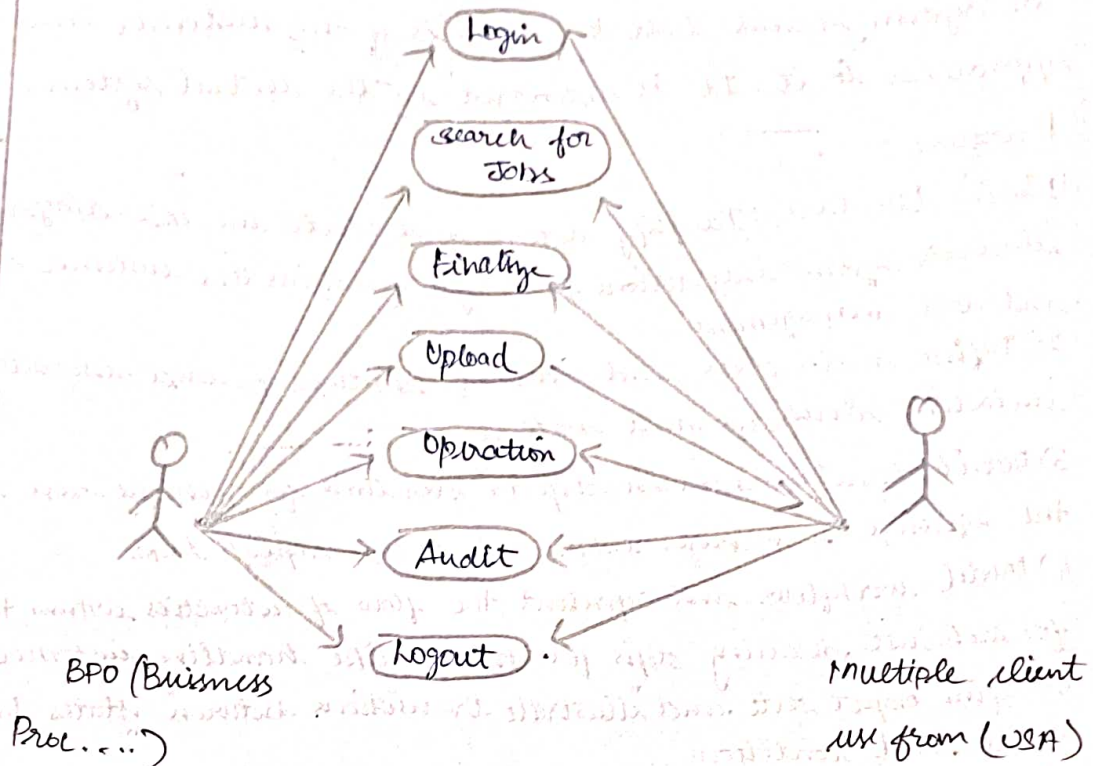
Code: [Python]

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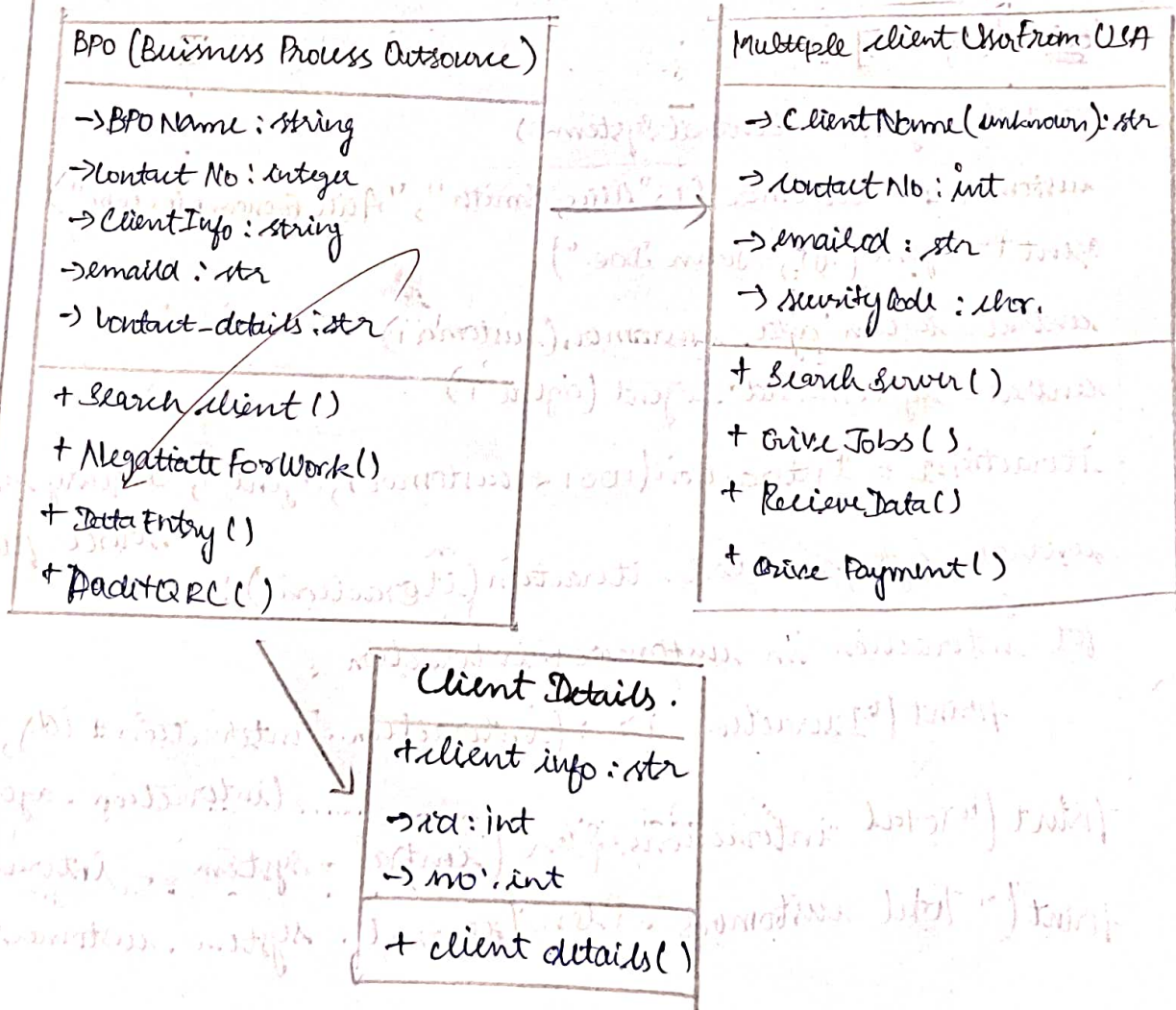
central_system = CentralSystem()
customer_1 = Customer(1, "Alice Smith", "Alice@example.com")
agent_1 = Agent(101, "John Doe")
central_system.add_customer(customer_1)
central_system.add_agent(agent_1)
interaction_1 = Interaction(1001, customer_1, agent_1, "Inquiry about service flows")
central_system.record_interaction(interaction_1)
for interaction in customer_1.interactions:
    print("Interaction ID: (interaction.interaction_id), Agent: (interaction.agent.name);")
print("Total interactions: {len(central_system.interactions)}")
print("Total customers: {len(central_system.customers)}")

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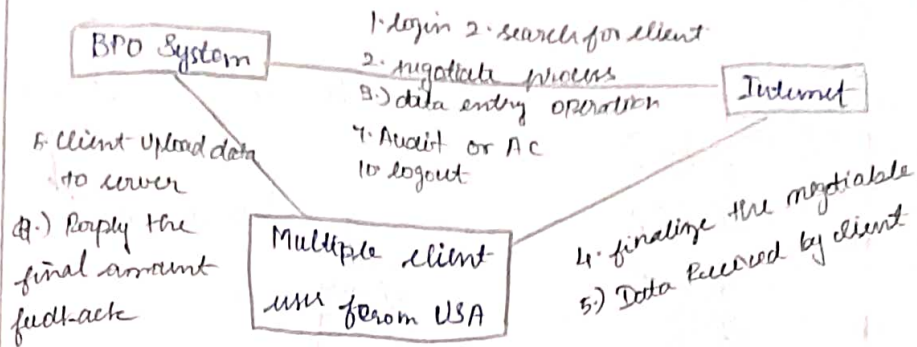
Use Case Diagram:



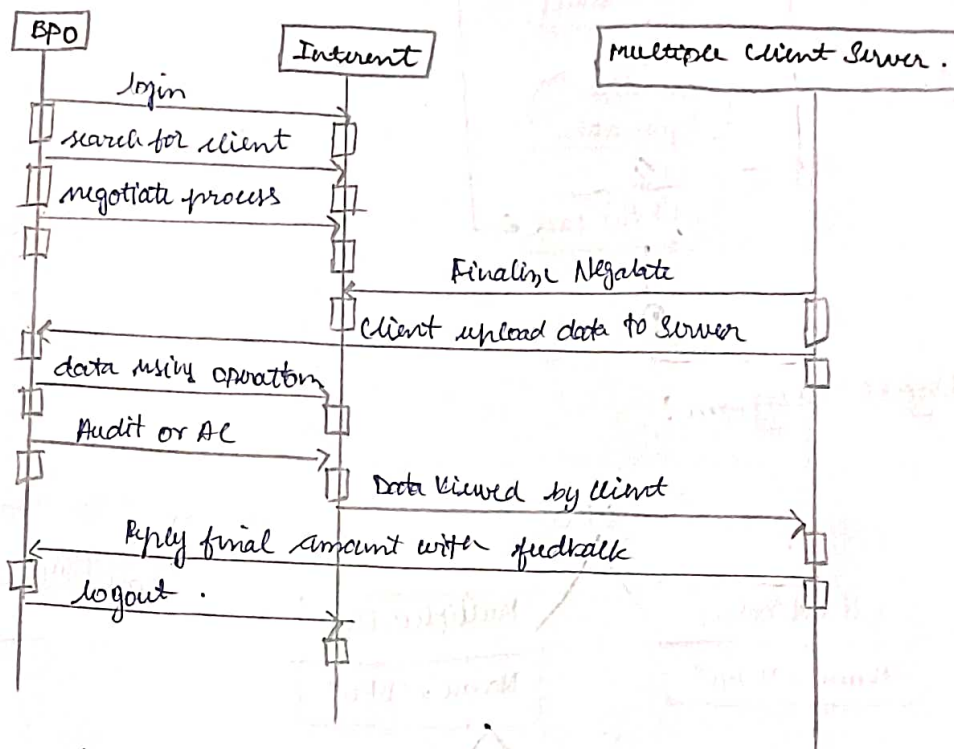
Class Diagram:



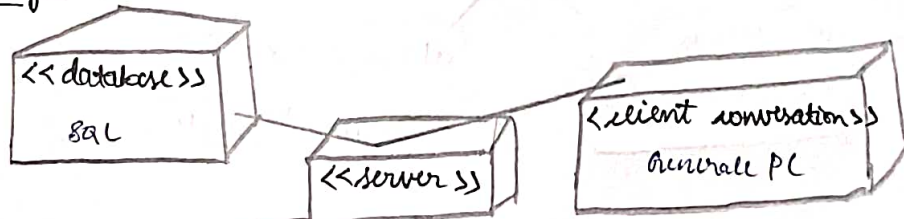
Collaboration Diagram:



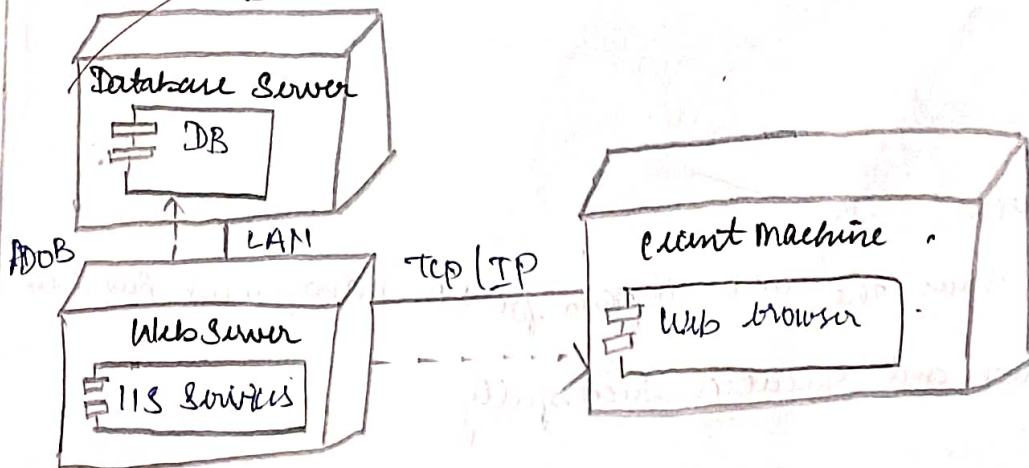
Sequence Diagram:



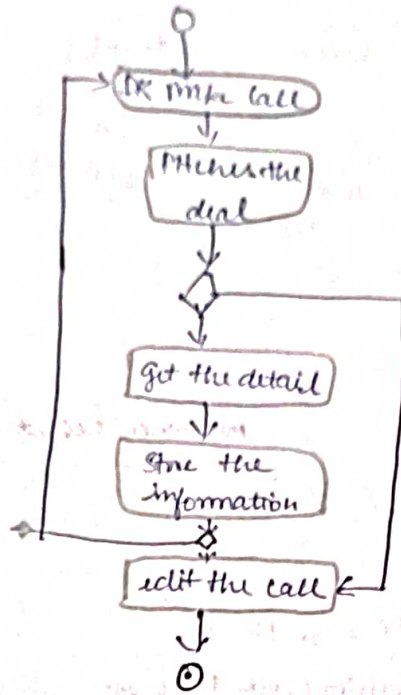
Deployment:



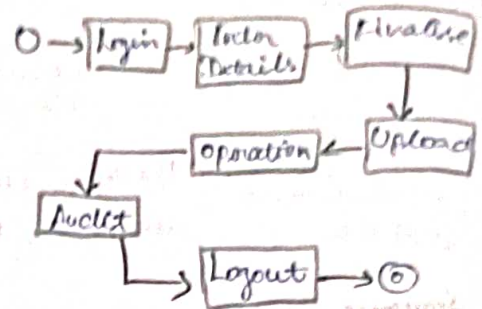
Component Diagram:



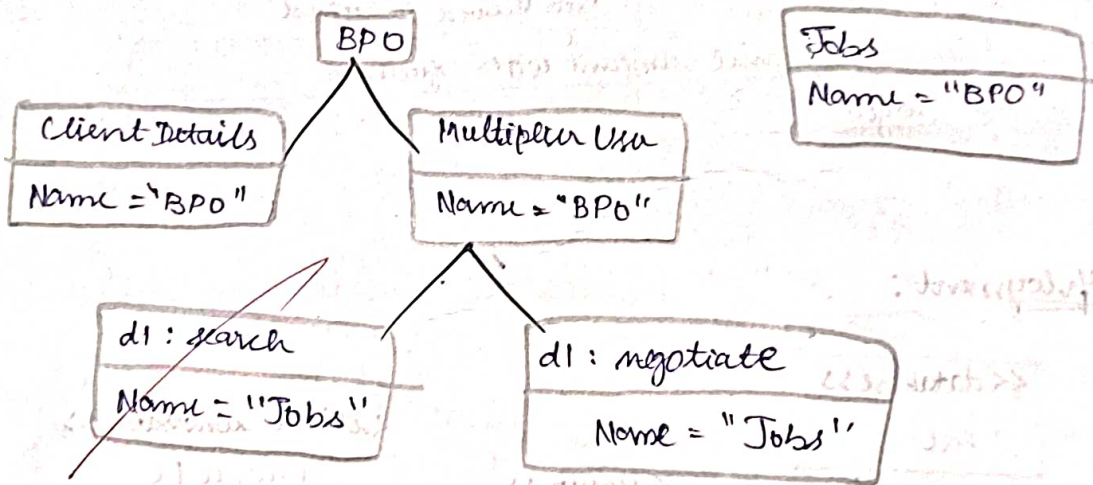
Activity Diagram:



Sequence Diagram:



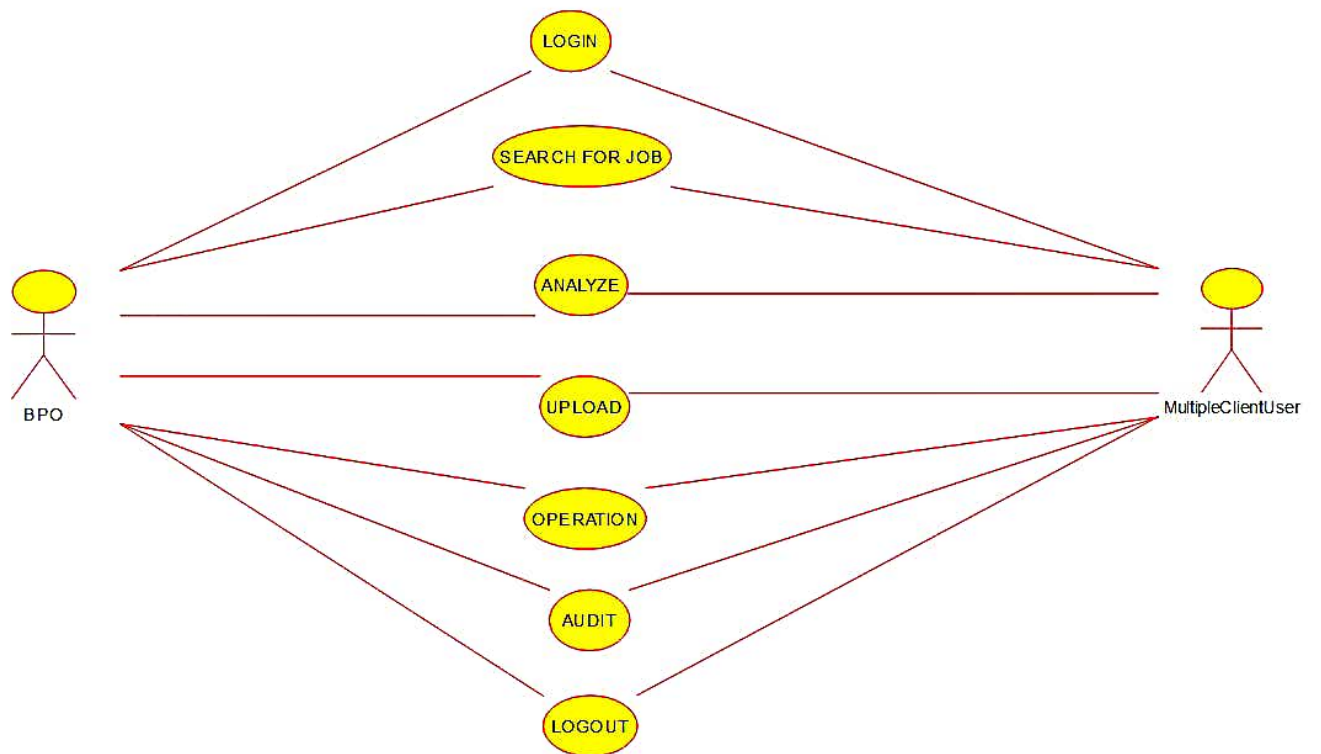
Object Diagram:



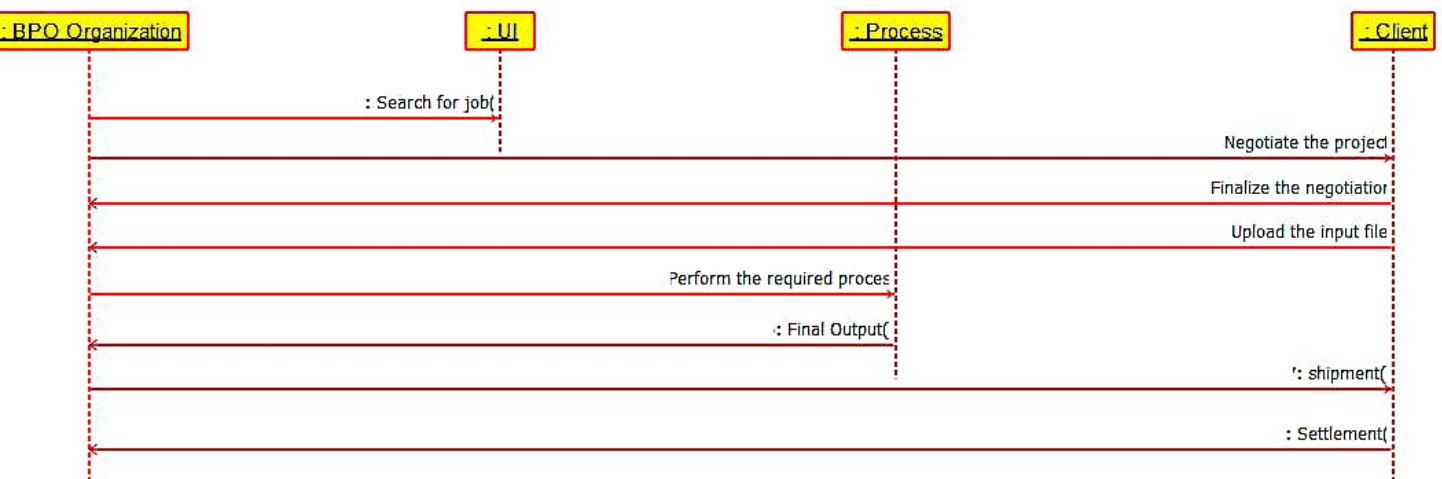
Result:

Thus, the UML diagram for BPO management has been drawn and executed successfully.

USE CASE FOR BPO MANAGEMENT SYSYTEM



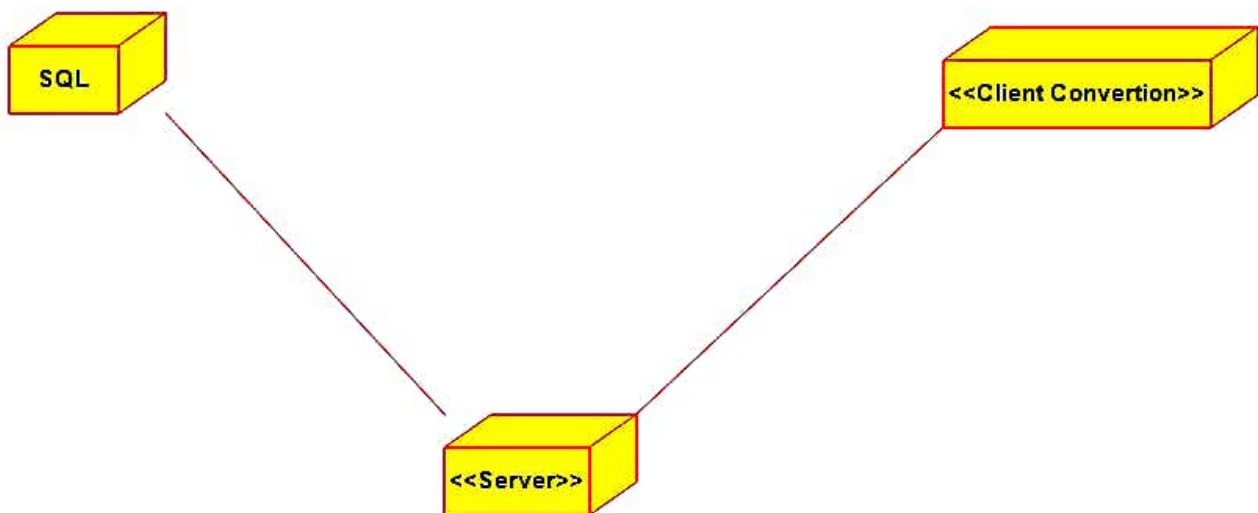
BPO SEQUENCE DIAGRAM



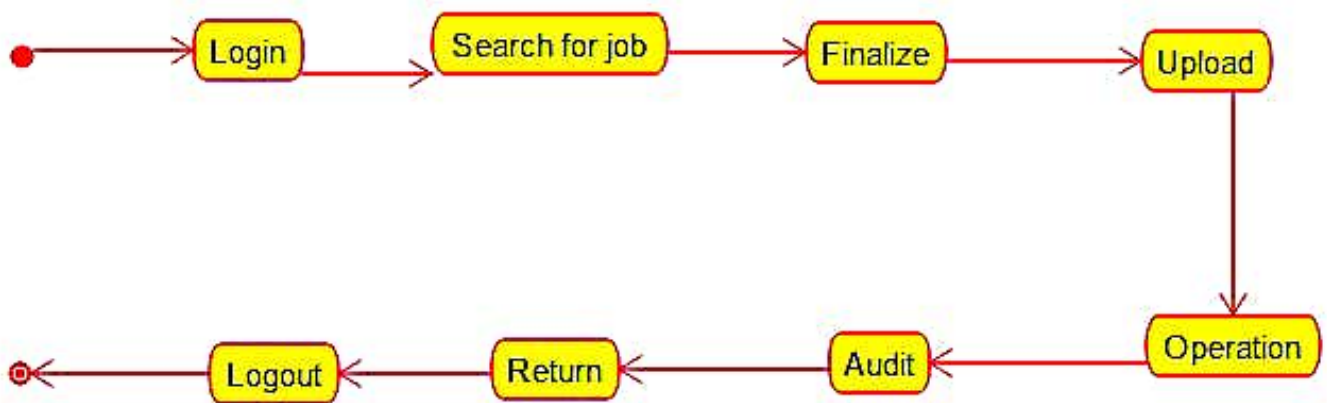
BPO Component Diagram



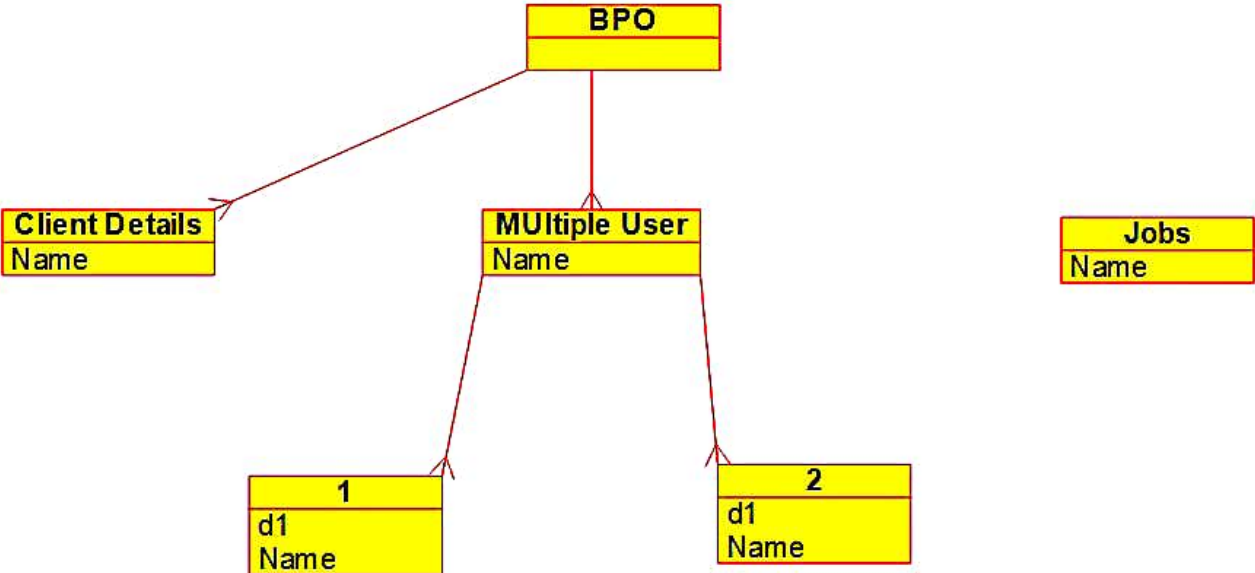
BPO Deployment Diagram



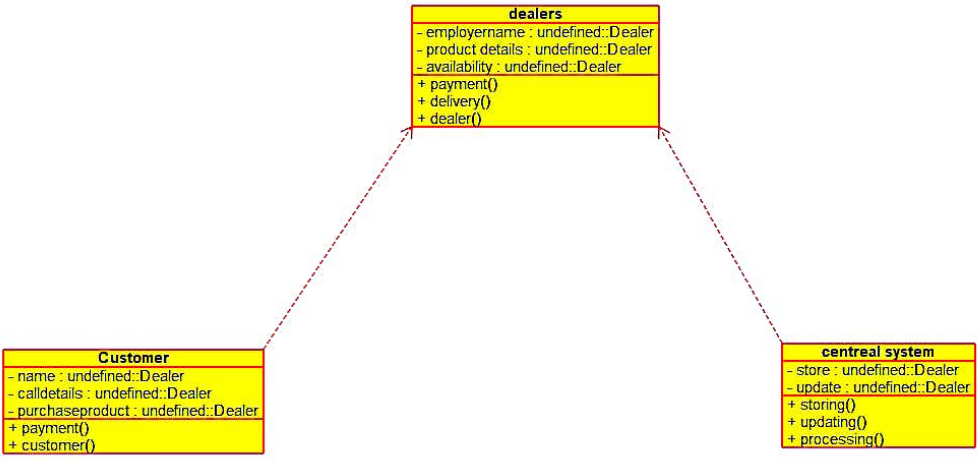
BPO State diagram



BPO Object Diagram







BPO Collaboration diagram

