

WK4: SYSTEM DIAGRAM

Part-1

Anila Naz

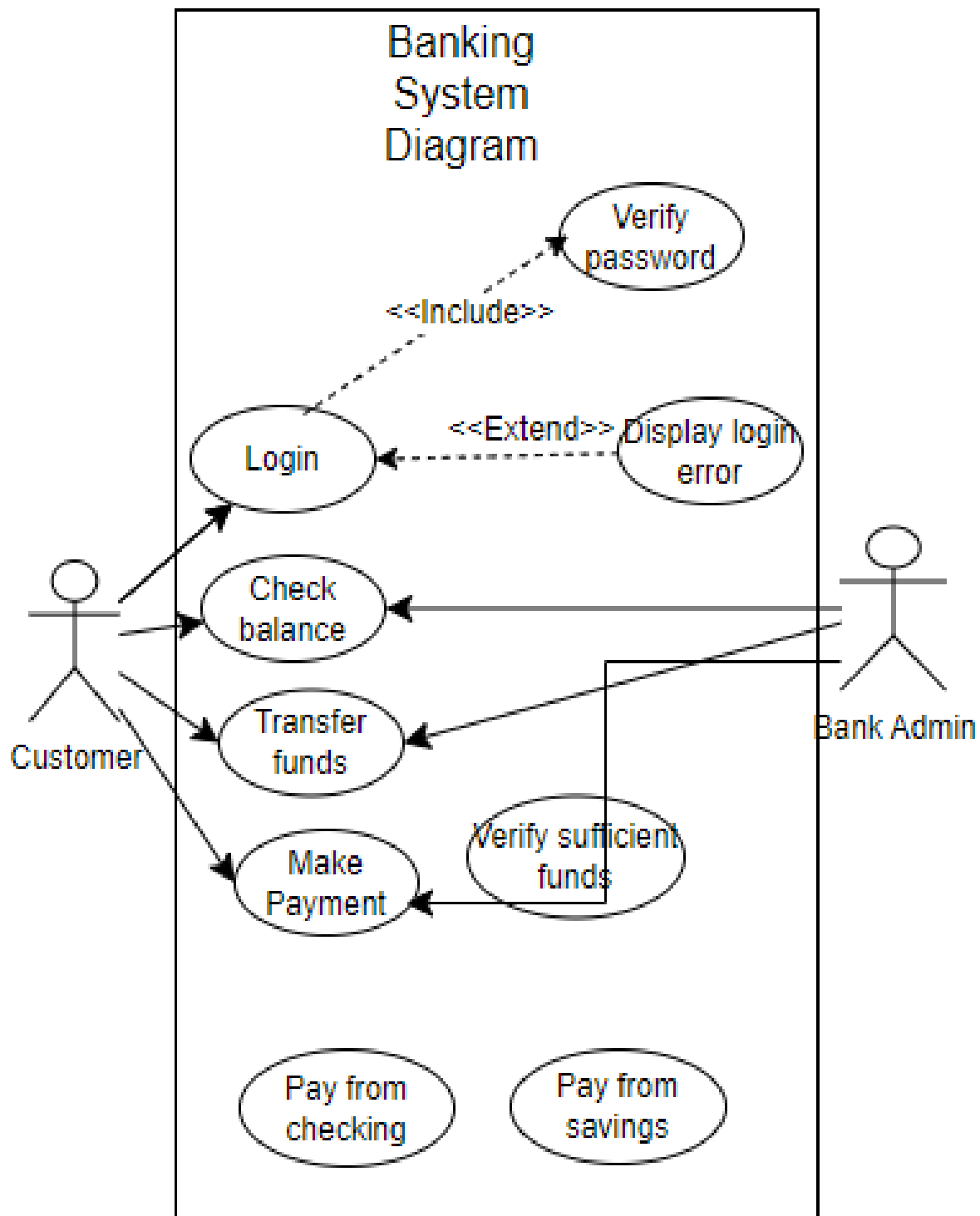
University of Phoenix

BSA-425: BSIT Capstone

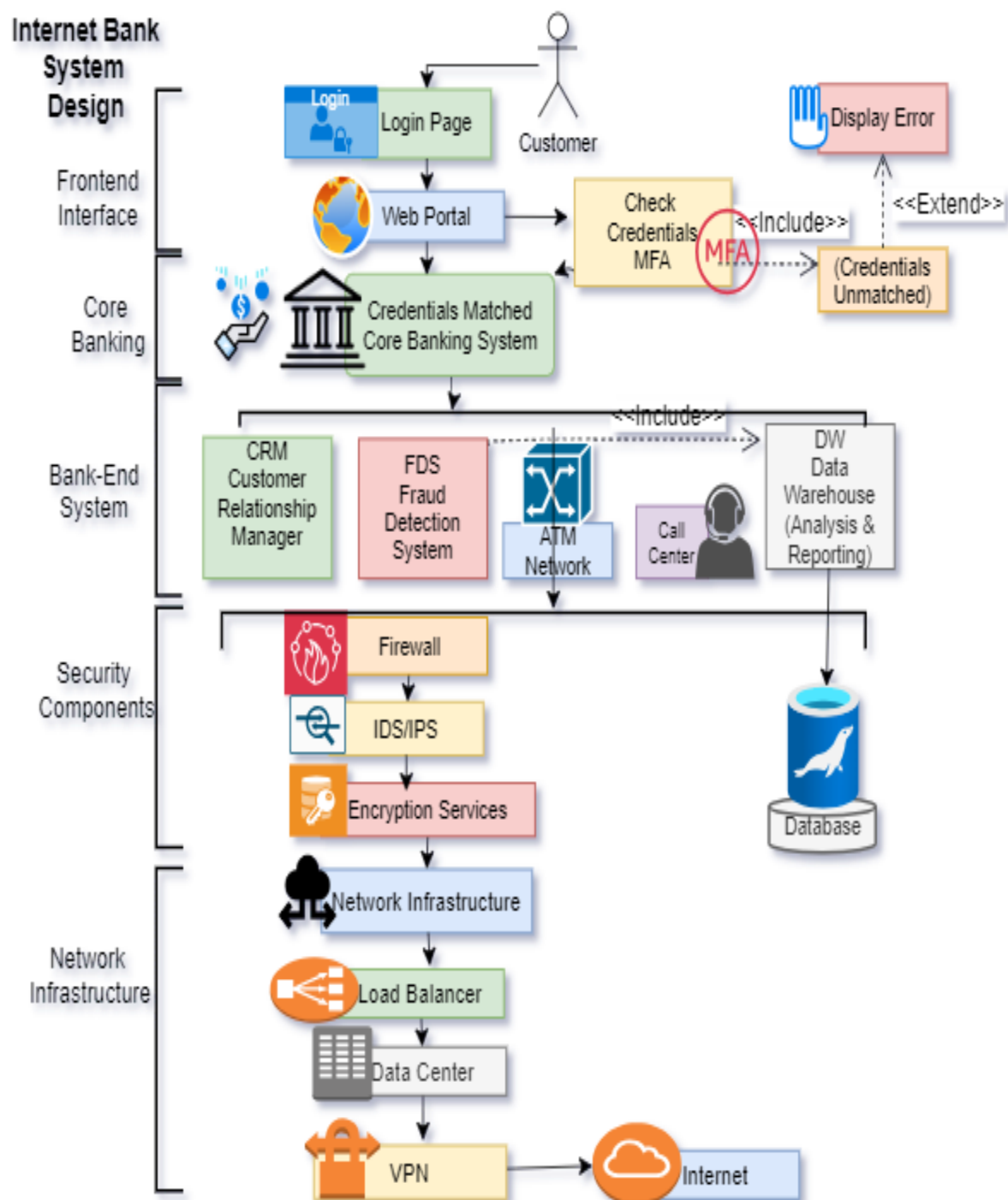
Professor: Dr. Reid

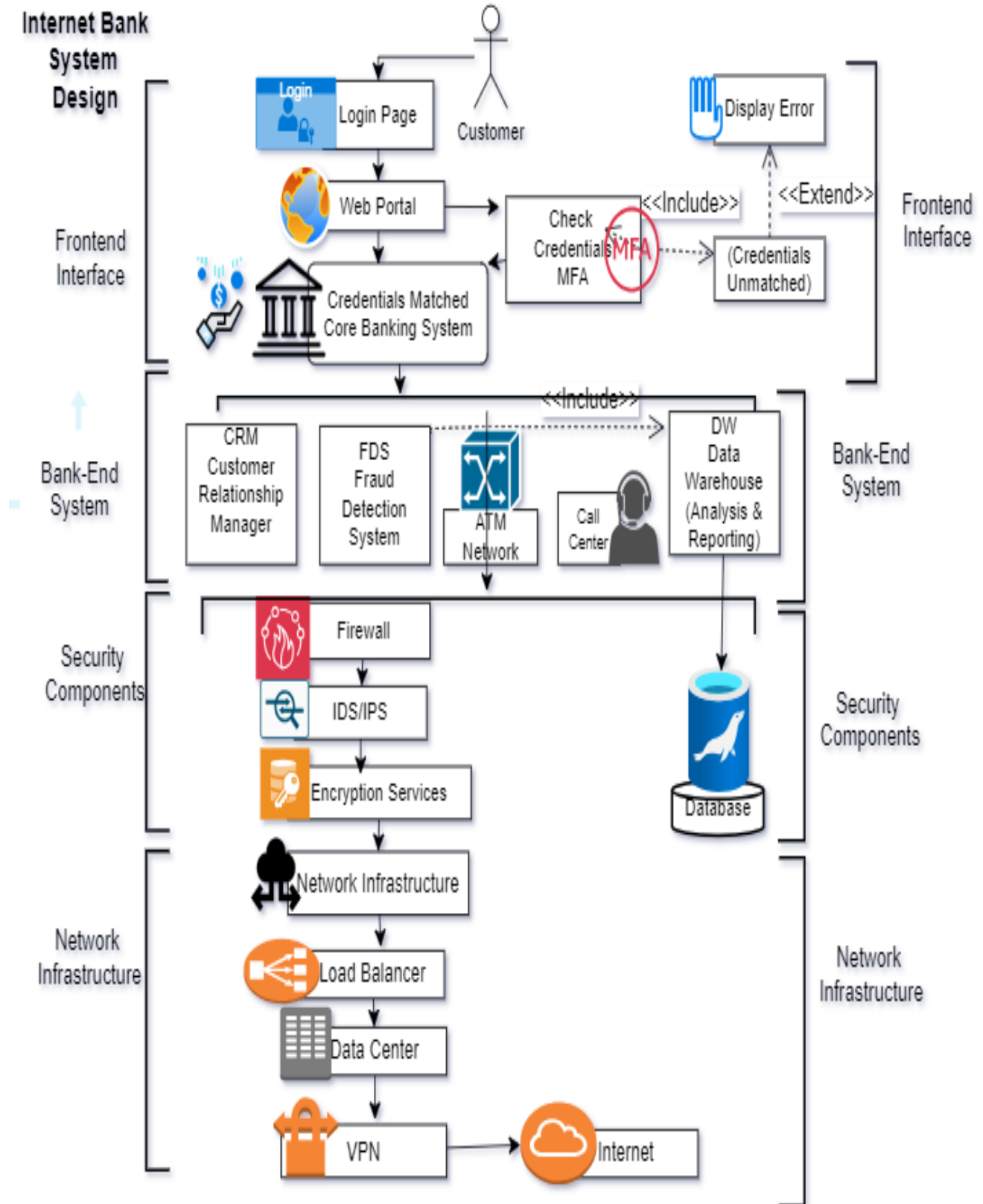
12th. July 2024

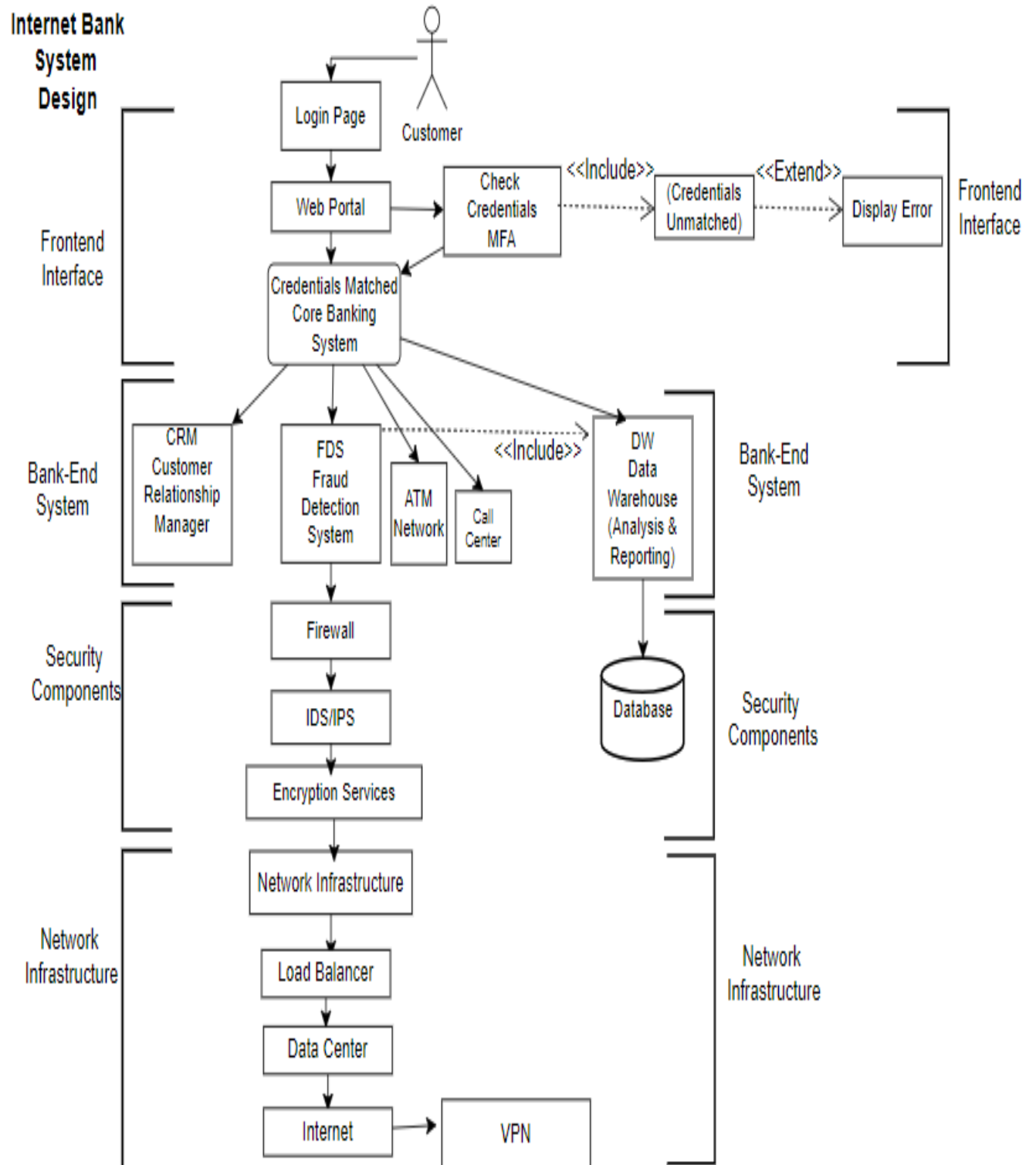
Banking System Diagram:



Improved Diagram:







Internet Bank System Design Explanation:

1. **Customers:** Initiate the process by accessing the login page.
2. **Login Page:** Where customers input their credentials.
3. **Web Portal:** The interface that communicates with backend systems to process requests.
4. **Check Credentials:** The step where customer credentials are validated.
5. **Credentials Matched?** Decision point:
 - If matched, proceed to MFA.
 - If unmatched, display an error message.
6. **Multi-Factor Authentication (MFA):** Provides an additional layer of security.
7. **Verify MFA:** Ensures the second factor of authentication is correct.
8. **Core Banking System:** Handles all banking operations and transactions.
9. **Backend Systems:** Includes CRM for customer management, Fraud Detection System for monitoring suspicious activities, Data Warehouse for storing and analyzing data, ATM Network for physical transactions, and Call Center System for customer support.
10. **Security Components:** Protects the network:
 - **Firewall:** Shields the network from external threats.
 - **IDS/IPS:** Monitors and prevents intrusions.
 - **Encryption Services:** Secures data during transmission and storage.
11. **Network Infrastructure:** Ensures data flow and network reliability:
 - **Load Balancer:** Manages traffic distribution across servers.
 - **Data Centers:** Houses the servers and storage systems.
 - **Internet:** Connects users to the bank's online services.
 - **VPN:** Provides secure remote access for employees.