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Assignment 2

Question #1

Describe that Riphah University wants to create a new department for Riphah Alumni. Every employee has their system credentials and they can use these credentials on any system inside the building. How can you ensure the system authorization, availability, and monitoring?

Answer:

System Authorization:

- Centralized Authentication (Active Directory/LDAP)
- Role-Based Access Control
- Two-Factor Authentication

System Availability:

- Redundant Servers & Dual ISPs
- UPS & Power Backup
- Cloud Backup & Recovery

System Monitoring:

- Network Monitoring Tools (Zabbix, Nagios)
- SIEM Tools (Splunk, QRadar)
- Firewall & IDS

Question #2

Describe OSI model and DoD model with an example and also make a complete process with diagram of these processes.

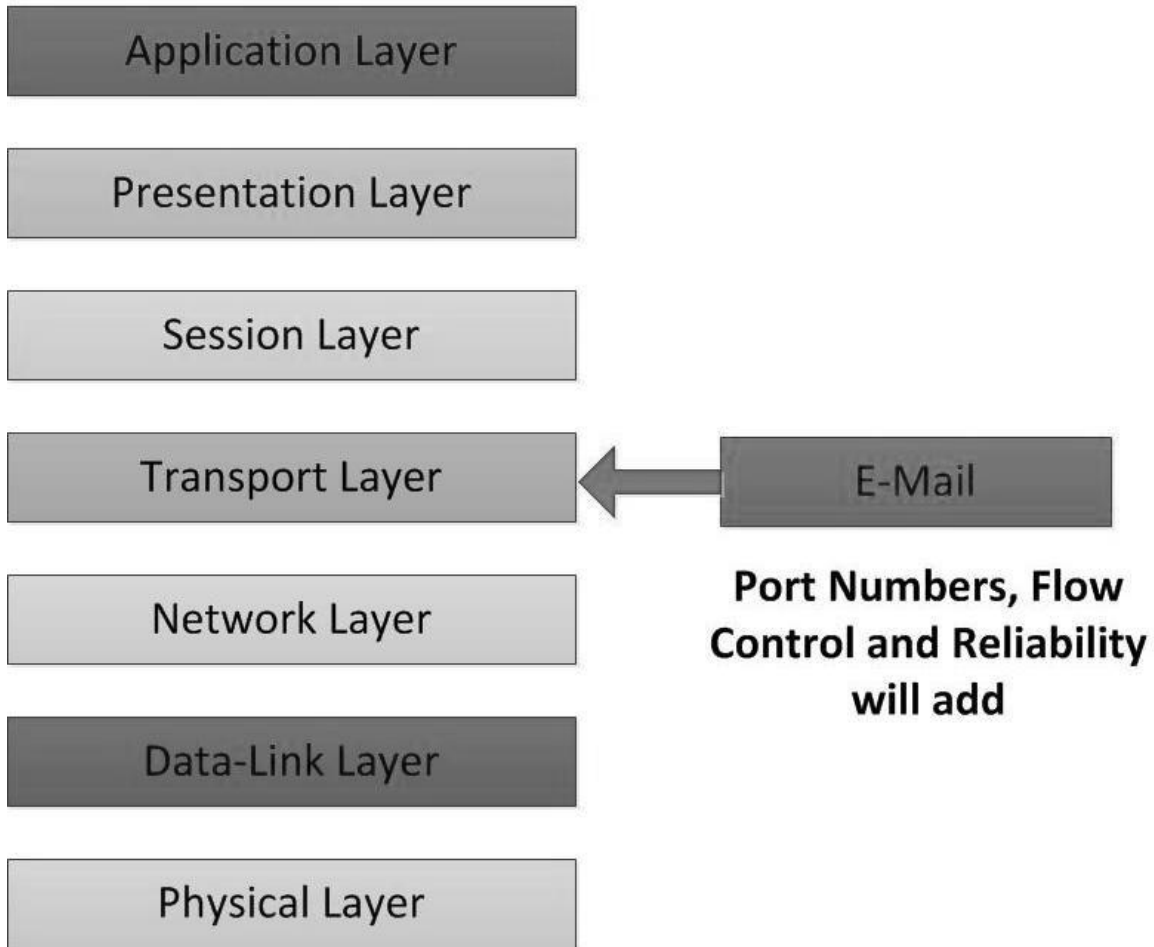
Answer:

OSI Model (7 Layers):

- Application
- Presentation
- Session
- Transport
- Network

- Data Link
- Physical

Example: Sending an email through Gmail using OSI model.



DoD Model (4 Layers):

- Application
- Transport
- Internet
- Network Access

Example: Accessing a website using a browser with HTTP/TCP/IP.

