

eu-north-1.console.aws.amazon.com/ec2/home?region=eu-north-1#Instances:

Account ID: 9473-0977-8595 | Balaji R

EC2 Instances

Instances (2/5) Info Last updated 5 minutes ago Connect Instance state Actions Launch instances

	Name	Instance ID	Instance state	Instance type	Status check	Alarm stat
<input type="checkbox"/>	taskk	i-074e9d15f947797d7	Terminated	t3.micro	-	View alarm
<input checked="" type="checkbox"/>	privateinstance	i-04f5e54cd5f3e30fa	Running	t3.micro	3/3 checks passed	View alarm
<input checked="" type="checkbox"/>	publicinstance	i-09ca2d5e3b18b3d33	Running	t3.micro	3/3 checks passed	View alarm
<input type="checkbox"/>	privateinstance	i-0d89f906c7f5095d8	Terminated	t3.micro	-	View alarm
<input type="checkbox"/>	publicinstance	i-005b574cde73e8ee6	Terminated	t3.micro	-	View alarm

2 instances selected

Monitoring

Configure CloudWatch agent

Alarm recommendations

3h 1d 1w 1h UTC timezone Explore related

CPU utilization (%)	Network in (bytes)	Network out (bytes)	Network packets in (cou)
Percent 1.51	Bytes 24.3M	Bytes 43.9k	Count 3.15k

Amazon Q Free Tier

Hello! I'm Amazon Q, your AWS generative AI assistant.

Chatting about your resources

Understanding and optimizing your costs

Analyzing network troubleshooting

Investigating operational issues

Ask me anything about AWS

Max 1000 characters

Amazon Q Developer uses generative AI. You may need to verify responses. See the [AWS Responsible AI Policy](#).

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Launch an instance | EC2 | Instance details | EC2 | Instance details | EC2 | EC2 Instance Connect | chmod 400 command in | New Tab

eu-north-1.console.aws.amazon.com/ec2-instance-connect/ssh/home?region=eu-north-1&connType=standard&instanceId=i-09ca2d5e3b18b3d33&osUser=ec2-user&sshPort=228&addr... Account ID: 9473-0977-B595 Europe (Stockholm) Balaji R

aws Search [Alt+S]

```
~ \### https://aws.amazon.com/linux/amazon-linux-2023
~ \### https://aws.amazon.com/linux/amazon-linux-2023
~ \### https://aws.amazon.com/linux/amazon-linux-2023
[ec2-user@ip-172-31-42-114 ~]$ touch privateKey.pem
[ec2-user@ip-172-31-42-114 ~]$ vi privateKey.pem
[ec2-user@ip-172-31-42-114 ~]$ chmod 400 privateKey.pem
[ec2-user@ip-172-31-42-114 ~]$ ssh -i privateKey.pem ec2-user@172.31.41.176
The authenticity of host '172.31.41.176 (172.31.41.176)' can't be established.
ED25519 key fingerprint is SHA256:v8xbRt2UqqVkh7ILrvUhQ+pkdFkp7xbiFq2GkDfTwI.
This key is not known by any other names.
Are you sure you want to continue connecting (yes/no/[fingerprint])? y
Please type 'yes', 'no' or the fingerprint: yes
Warning: Permanently added '172.31.41.176' (ED25519) to the list of known hosts.
, # Amazon Linux 2023
~ \### https://aws.amazon.com/linux/amazon-linux-2023
~ \### https://aws.amazon.com/linux/amazon-linux-2023
[ec2-user@ip-172-31-41-176 ~]$
```

i-09ca2d5e3b18b3d33 (publicinstance)
PublicIPs: 13.51.85.2 PrivateIPs: 172.31.42.114

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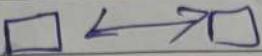
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Network.

What is network?

Communication between two electronic device.



Types of network:

- Local area network \times LAN - small area, home, office, school
- Wide area network \times WAN - covers large areas, like the internet
- Metropolitan \times MAN - covers a city or town.
- Personal Area \times PAN - very small range like hotspot or Bluetooth

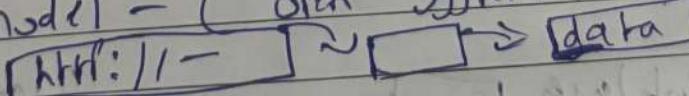
Key networking devices:

- \times Router - connects networks
eg: home wifi to internet
- \times Switch - connects multiple devices inside a network.
- \times Hub - basic connector for devices (less common now)
- \times Firewall - protects network traffic by filtering threats

Common Networking Protocol:

- \times TCP / IP - foundation of internet communication
- \times HTTP / HTTPS - for web browsing
- \times FTP / SFTP - for file transfer.
- \times SMTP / IMAP / POP3 - for email

OSI model - (Open System Interconnection)



There are \rightarrow layers in OSI model:

Bottom up Approach

→ Application layer

→ Presentation layer

→ Session layer

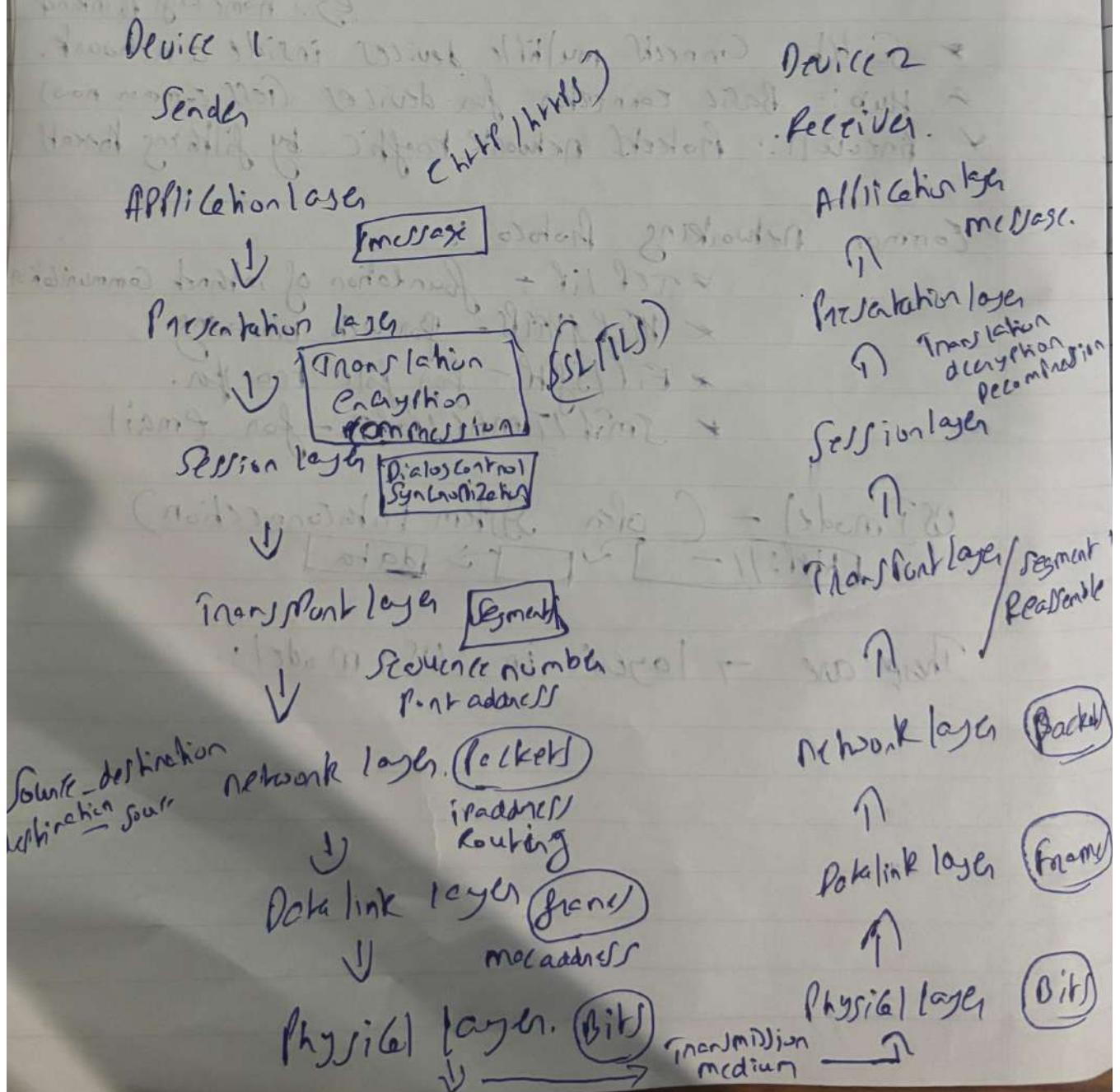
→ Transport layer

→ Network layer

→ Data link layer

→ Physical layer

OSI is a conceptual framework that explains how data moves from one computer to another over a network.



- Application - Allyou use (wp, chrome, Gmail)
- Presentation - formats data (encryption, compression)
- Session - starts / end connection (like login, logout)
- Transport - Breaks data into pieces, ensures delivery (TCP, UDP)
- network - finds the address and best path (IP, routes)
- pack link - Drives data to the right device (MAC)
- Physical - wire, wifi signals, electricity carrying data.