Important

Create an aws account AWS Account https://portal.aws.amazon.com/billing/signup

How to create AWS account

https://www.youtube.com/watch?v=F4jF88UkxV4

1. CC/DB --> give details like firstname lastname address email

5:05 types of computers

Computer --> computation with in local or wide network

following all can be called as computers

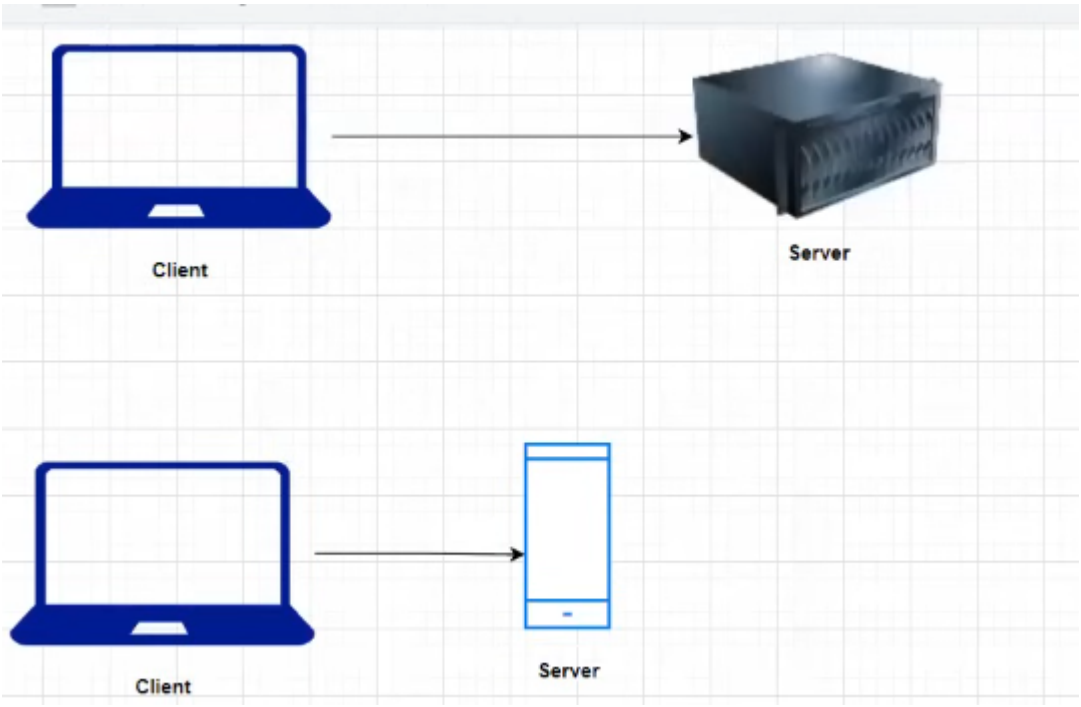
- Laptop ,
- Desktop
- Server
- Mobile
- TV --> smart tv
- android
- wifi/network
- storage
- RAM --> 2GB
- Refrigirator --> they can order food items on their own
- Washing machine
- AC computers have,**OS,CPU,Ram,Storage,IP Address**

for example if we take mobile it will have OS --> Android RAM --> 8GB Storage --> 128/512 CPU --> Snapdragon WiFi/Mobile net upon connection gives us an Ip address

server --> install application and serve users/clients

client server thinking

client server architecture



The ones who provides response is server, server serves the needs for any request, Clients changes and more in count than servers, Servers are few in than clients

server --> mobile
client --> laptop mobile --> files/image/

17:13 IT --> communication between clients and server

Operating Systems --> Linux
Windows --> bridge b/w user and hardware --> UI
windows --> user instructions --> commands --> 0/1 --> hardware
OS will take care of how to convert instructions into 0/1

21:18 Windows vs Linux

graphics --> load increase on RAM, CPU
servers world --> linux
linux is Fast, less cost and is free
stability --> run 10 years also non stop
performance --> very high
security --> comes from unix principles

How to connect linux server

box lock --> public (anyone can see)
key --> private (you wont share it with anyone , private to you)

Auth mechanism

1. what you know --> username/password
2. what you have --> tokens

3. what you are --> fingerprints, palms, retina, etc.

what you have

ssh --> secured shell

pub/private key --> generate this pair
public private keys asymmetric and symmetric cryptography

a private key can be used for encryption, but it's not commonly done in the context of public-key cryptography. Private keys are usually kept secret and used for decryption, while public keys are used for encryption. However, in symmetric-key cryptography, where the same key is used for both encryption and decryption, the same key can be used for both purposes.

Linux server = node = box

```
ssh-keygen -f <file-name>
```

31:15 Git download and configuration

Git bash --> https://git-scm.com/downloads git bash is a mini linux in windows

```
/c/Users/user
/c/Users/sivakumar

ssh-keygen -f daws-76s
daws-76s.pub --> public key
daws-76s --> private key
```

38:26 public key structure or syntax

```
ssh-rsa <code> <laptop-name>
```

cheapest region --> us-east-1 >> somewhat slow than mumbai --> negligible delay

AZ

every region --> min 2 AZ for High Availability

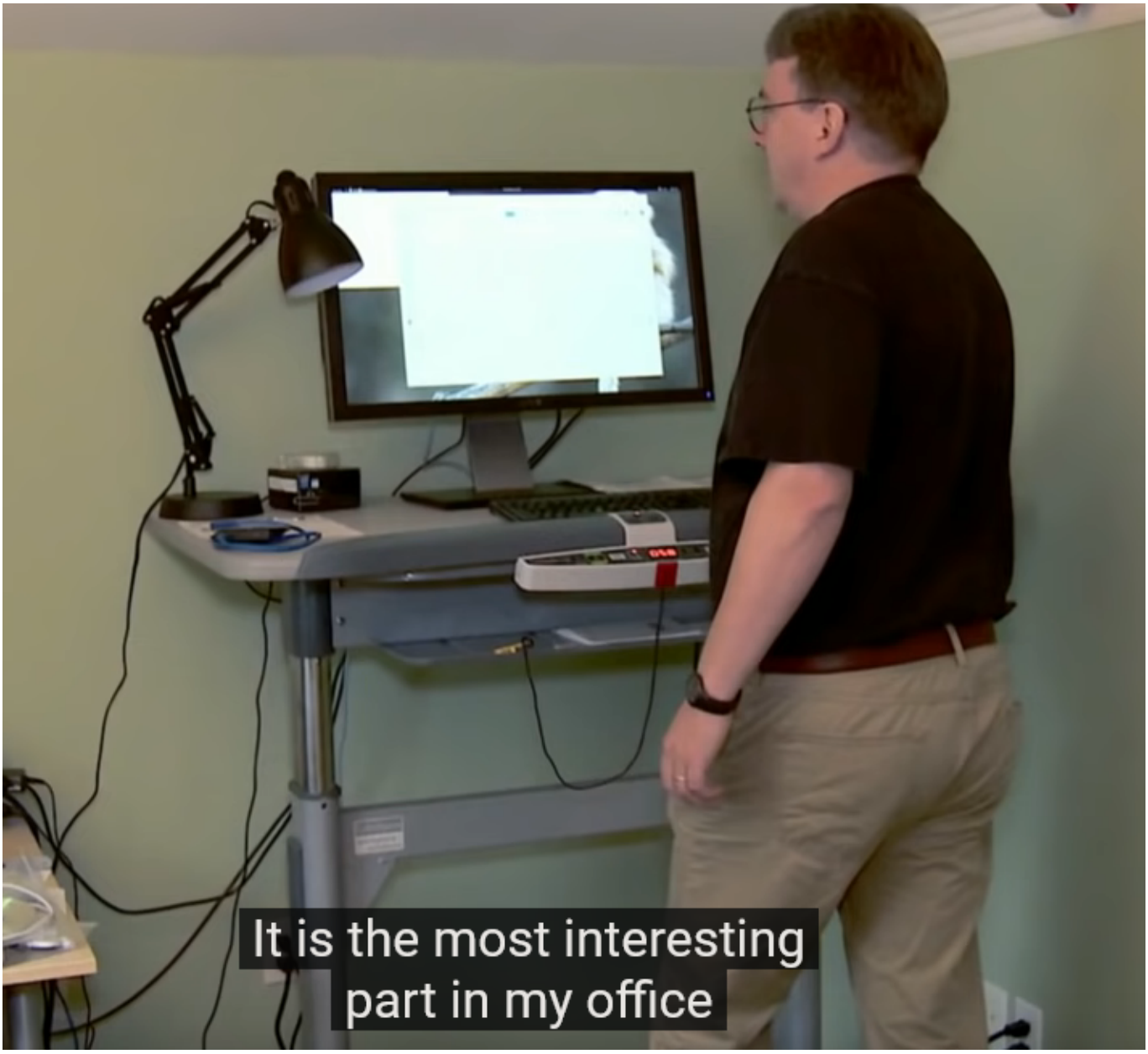
41:58 AWS - creation of Security group and

--> everything is called as resource
EC2 --> creation of servers
0.0.0.0/0 --> representation of internet / public
Linux is not operating system -> it is kernel

50:10 OS vs Kernel

Kernel --> connecting to Hardware --> no utilities, no shell

Linus Torvalds created Linux kernel Do watch The mind behind linux



Unix --> very costly, tightly coupled to hardware Laptop --> IBM Dos Linux Kernel --> based on unix principles but code is from the scratch --> C Language

Open source

Kernel + packages + shell == OS Android is flavour of linux Kernel + package + shell + UI

ubuntu

Desktop --> Kernel + Shell + UI Server --> Kernel + Shell centos RHEL Fedore Suse Arch Linux 99% same --> few commands only will differ

RHEL --> Open source --> but not free Code open source -> take the code

Support --> immediate call community RHEL = Centos = Fedora = almalinux = AWS Linux

RHEL --> Code --> OS --> CentOS --> internet community

connecting to server

IP=54.226.152.150 AWS linux username = ec2-user private-key

```
ssh -i <path-to-private-key> username@IP

ssh -i daws-76s.pem ec2-user@54.226.152.150
```

GitBash/putty --> SSH client EC2 Server --> SSH server protocol = SSH port=22

https://www.facebook.com:443

PROTOCOL IP Address Port-no

username and password

absolute path / relative path

/c/Users/user/daws-76s.pem --> absolute

Differentiating between normal user and root user

```
$ --> normal user
# --> root
pwd --> /home/ec2-user
uname --> kernel name

<command-name> <options> <inputs>
options and inputs are ocassionally optional

<command-name> --help = will get info
history - to get commands list used before
```

1 server --> free 30/31 days 2 servers --> 15 days 3 servers --> 10 days

AWS account public key and private key create ec2 server and connect to it client-server git bash

ec2 t2-micro charges --> assignment --> INR t3.medium charges --> assignment

DevOps overview sessions

Listen to Devops overview sessions