virtualization and containers

see paper notes

Cloud Stuff

similarities between cloud and containers- fast set up and tear down and flexible resource allotment

on-premises services/resources: company has physical servers on location

cloud services: hosted by another company

hybrid cloud: combination of on premises and cloud

multi cloud: using more than one cloud service

SaaS: software as a service

Eg: gmail, office365, outlook and project1, azure boards, github

Abstract away everything except for the application itself (hardware, network, os, disk)

IaaS: infrastructure as a service

Eg: azure VM, amazon ec2 (AWS)

Virtual machines

Storage

Disk storage- connect to 1 VM at a time

File storage- connect to many things at once (fileshare)

Blob storage- unstructured, no directories or filesystem, but most efficient for large or streamed files, static assets (images)

Abstract away physical location, electricity, most physical attributes to the service

CaaS: container as a service

PaaS: platform as a service

Eg: azure app service, azure pipelines

Amazon elastic beanstock

In between IaaS and SaaS

Abstract away OS, disk, network, hardware

Cloud provider/platforms: amazon web services (AWS), Microsoft azure, google cloud

Service level agreement: the service level is the amount of uptime and the agreement is the most amount of downtime that is allowed

99.99999% usually measured in hours/year

Regions- the physical location of the server to allow faster load times. Can also improve security through redundancy

Availability zone- server redundancy in regions to allow a higher assurance of uptime

Public cloud