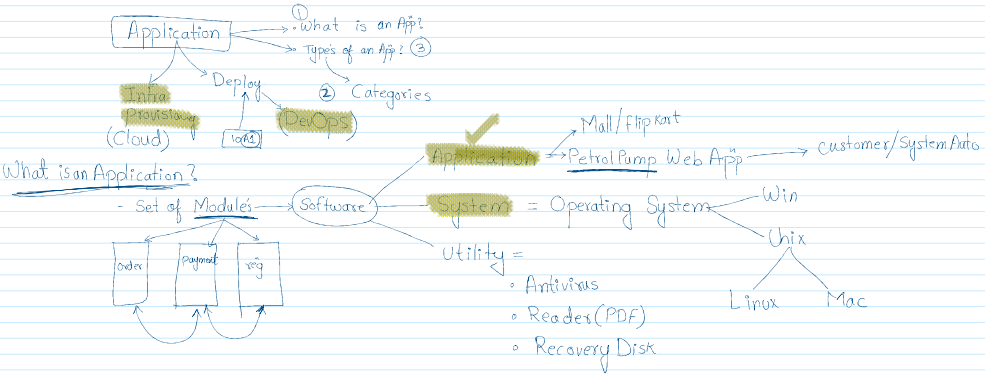
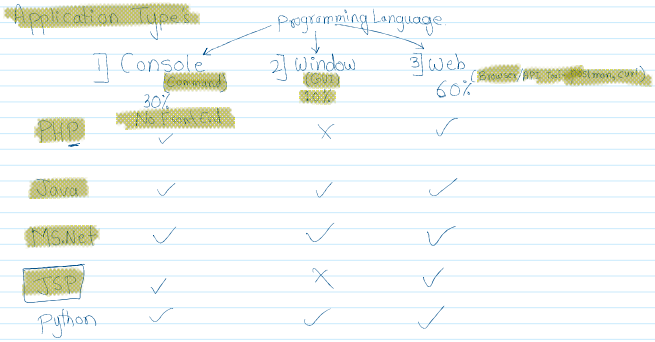
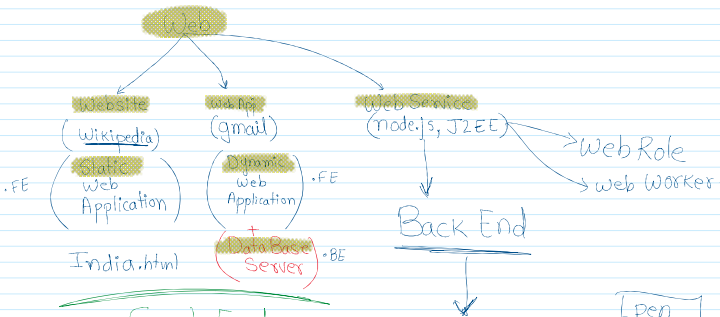
01.11Jul.Application Development Fundamentals

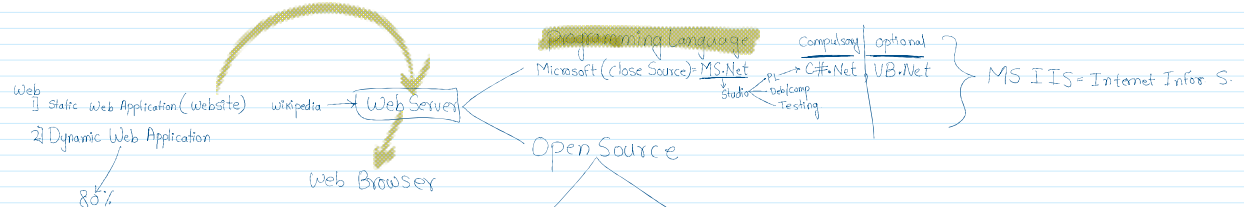
Tuesday, July 11, 2023 8:51 PM

- Overview of Application Development
- Various Types of Application
- Introduction to Databases
- Multi-tiered application architecture
- Overview of Monolithic and Microservices









2) Dynamic Web Application

80%

Web Browser

Open Source

Apache2

Nginx

Web App → Surf

C/D Engg

Cloud

Infra

DevOps

- Practices
- Automate → System
  - Logical
  - Web Server
  - Application Server
  - DataBase Server
- Migration
  - on Prem → Vist → Container
  - Server
  - Virtualization
  - IOAB
  - RAM
  - Cost → use
  - Rent/Sharable
  - amazon.com

1 Web Server

- Service, Client
  - ne.com
  - Jenkins
  - Waifer
- webApp Run
- Front End (Face)
- HTML (Default) → Static WA/website

Debian → Apache2

RedHat → HTTPD

Standard

Nginx

Minimal

fastest

Module's

Nginx

- WebApplication Run
  - static web App
- PHP/Python → Module

2 DataBase Server

Data

Data Service

Data + Schema

Data Base

DBase

R/W

CLI

GUI

API

General Method

Application Programming Interface

Embedded

IoT

Web

Mobile

Android

Ios

Windows

DBS

Server

- Software
- Tool

DataBase

- Bunch of file's

Client

- Tool Access DataBase value/stru.

CLI

GUI

API

Command

click

PL

DataBase

Open Source

(Code is Available)

RDMS

(Storage)

(HDD)

- MySQL ✓
- Postgresql

In-Memory

(RAM)

(Memory)

- H2 ✓
- Sqlite

Close Source

(Microsoft)

- MS Access (DesKtop)
- MS SQL Server (Enterprise)

Server

Logical Server

- Software based Server

Physical Server

- Hardware (Components)

Logical Server

- Software based Server

Specific Task

① Web Server = Apache2, HTTPD, Nginx

② Application Server = Web Logic, Web Spelbere

③ DataBase Server = MySQL, MS-SQL Server, Postgresql

④ Load Balancer Server = L7 (HTTP/HTTPS) → Content
L4

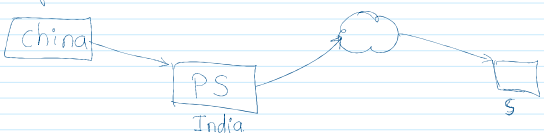
⑤ Proxy Server

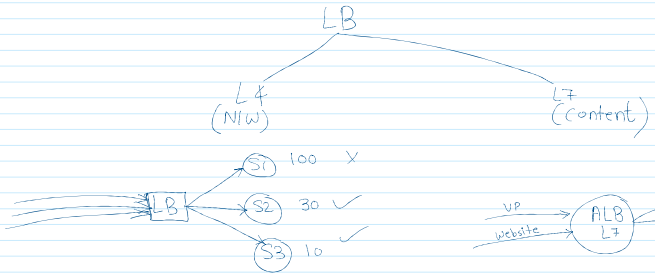
Physical Server

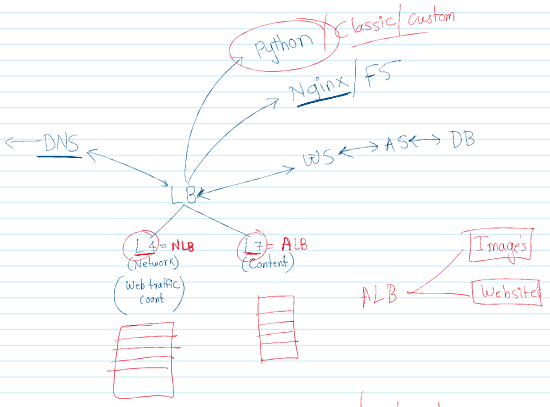
- Hardware Components

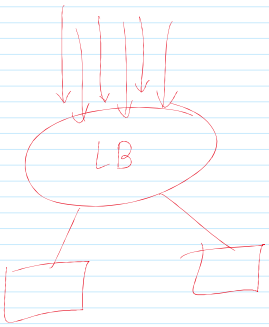
Rack ③ Workstation ① Blade ②

ALB



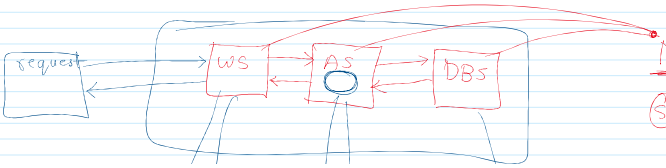






Application Server

- Business Logic (Processing)



N-Tier

Containerization

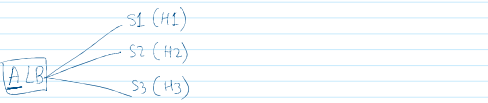
Micro.

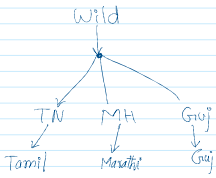
de0) 100

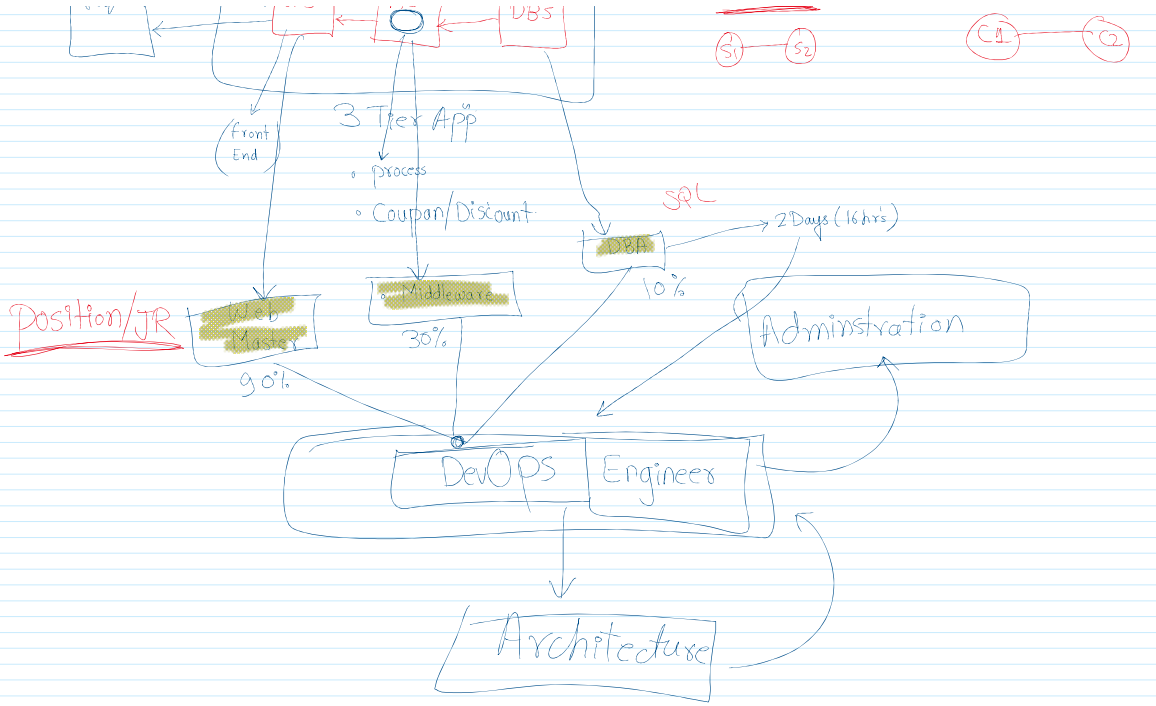
bApp) 1

BS) 0

Trans






DBS
3 Tier App
Front End
Process
Coupon/Discount
SQL
DBA
2 Days (16 hrs)
10%
Position/JR
Web Master
90%
Middleware
30%
Adminstration
DevOps
Engineer
Architecture