Agenda

Operational

- Whatsapp link
- Github student developer pack
- Curriculum
- Expectations
- Dev Setup

Learning

- Intro to Backend
- Intro to Version Control Systems (VCS)
- Types of Version Control Systems

Abhishek Ghosh
SSE-2 at Oracle → 7.5 YOE
→ DEShaw
→ Microsoft
→ EA Sports
→ Cognizant

Github Student Developer Pack — 1 year free access to

- Intellij Idea Ultimate
- Github Co-pilot
- Azure credits worth $200

- 3 Domain names + free hosting

Curriculum

- Intro to backend & VCS
- Git basics
- Intro to Spring & Springboot
- API's
- Integrate 3rd party APIs
- DBs and ORMs
- Unit Testing
- Deployment to AWS
- Authentication
- Pagination
- Searching & sorting
- Spring Cloud → Service Discovery
  - → Gateway
  - → LB
- Logging
- Kafka
- Redis

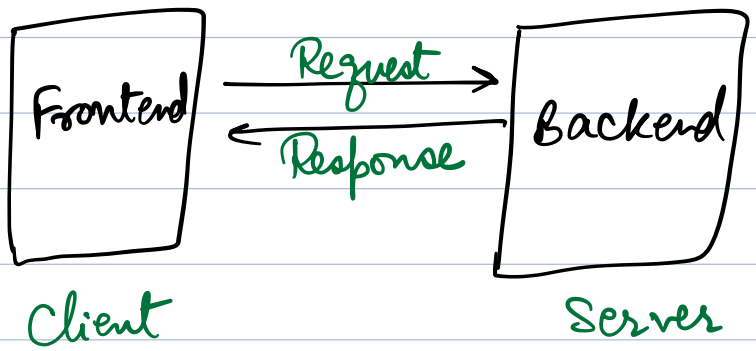
Expectations

1) Resume worthy project
2) Follow best practises for development
3) Do not expect spoon feeding
4) Learn to Google

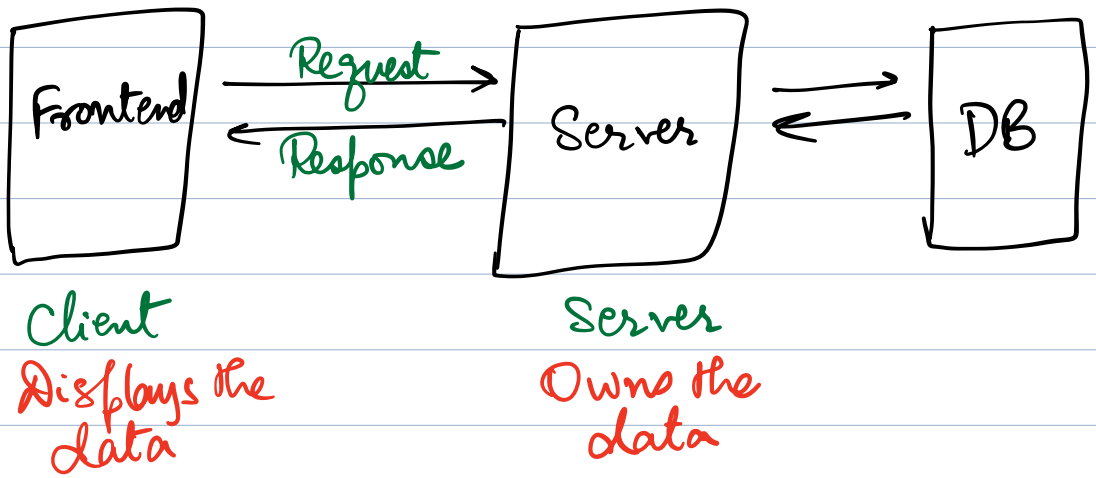
Dev Setup

1. Intellij Idea Ultimate
2. Java, Git — Java 17, 21
3. Postman
4. Github account

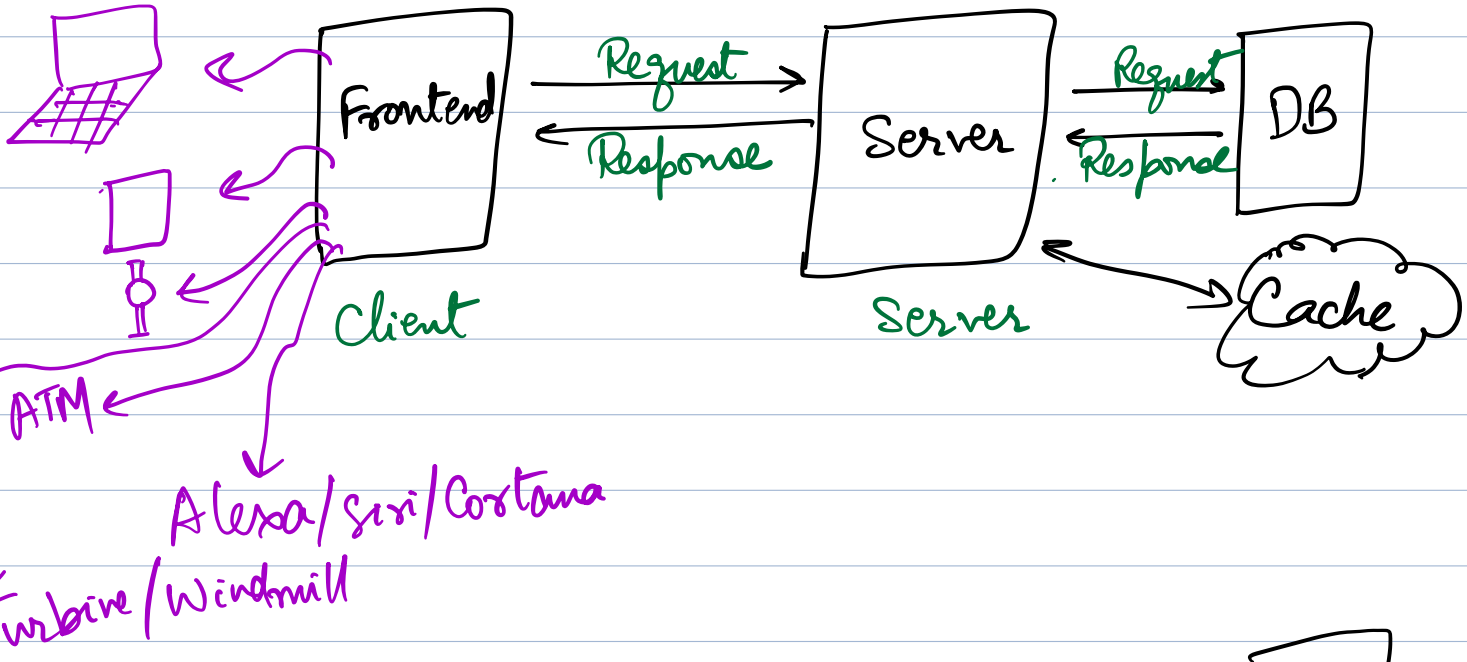
Intro to backend

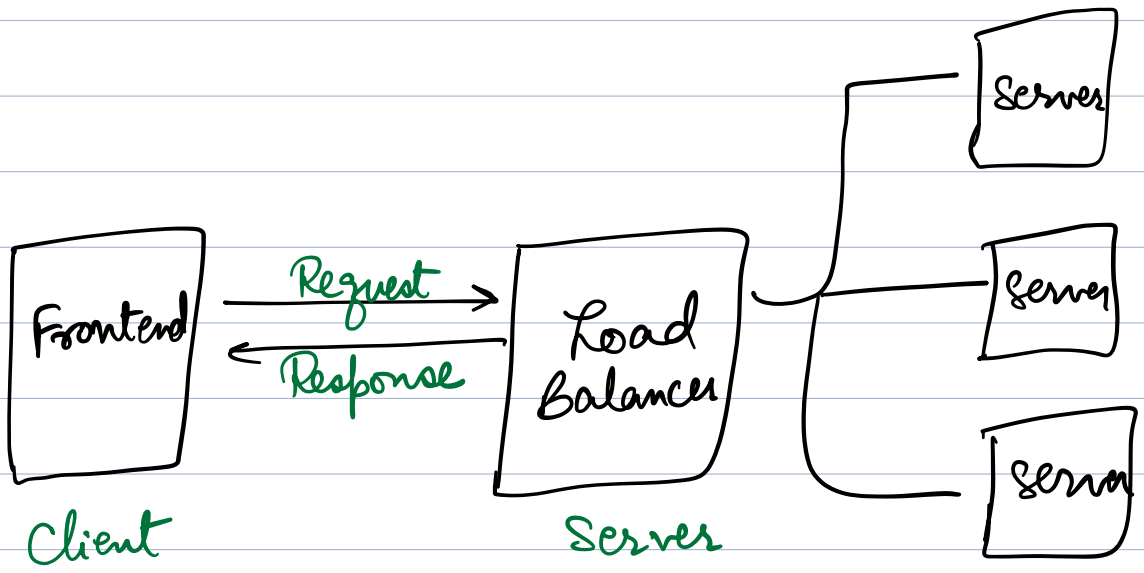


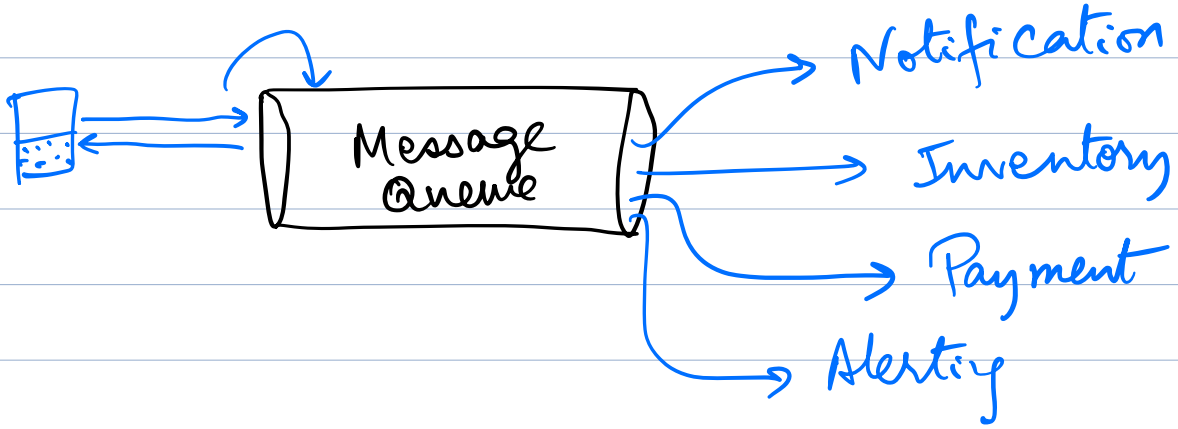
- Client Server architecture
- Request Response architecture



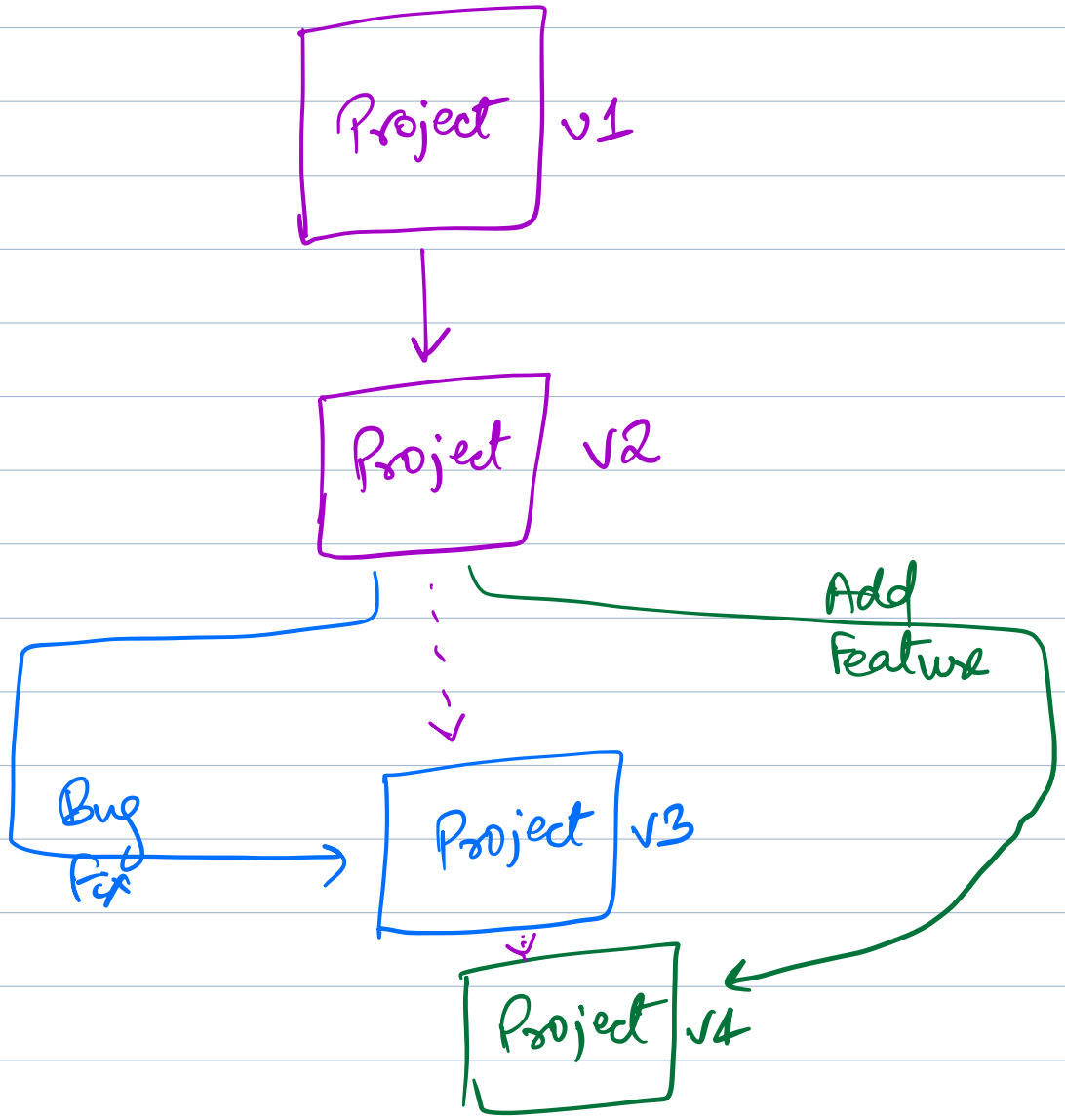
- 3 tier architecture







Intro to Version Control System



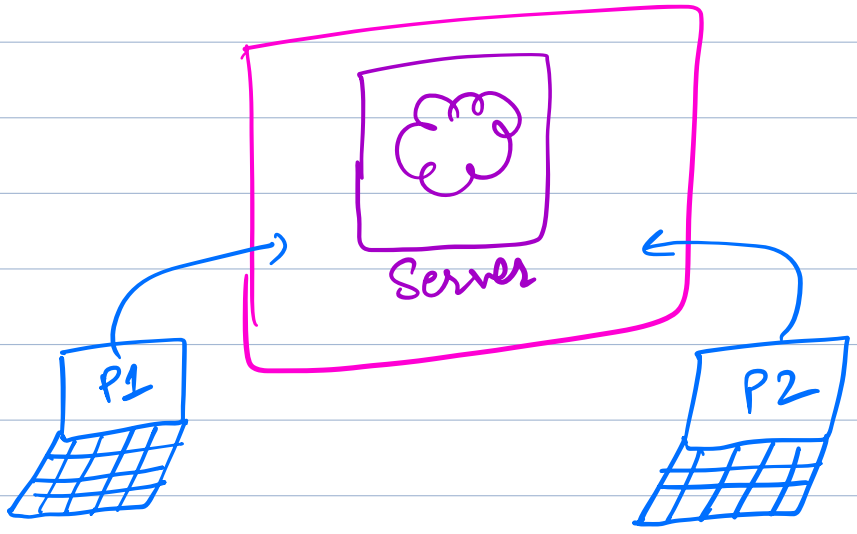
Why VCS?

1) Facilitates simultaneous working of developers
2) Rollback in case code breaks in production
3) Maintain version history

Types of VCS

1. Centralized version control system
2. Distributed version control system

Centralized VCS

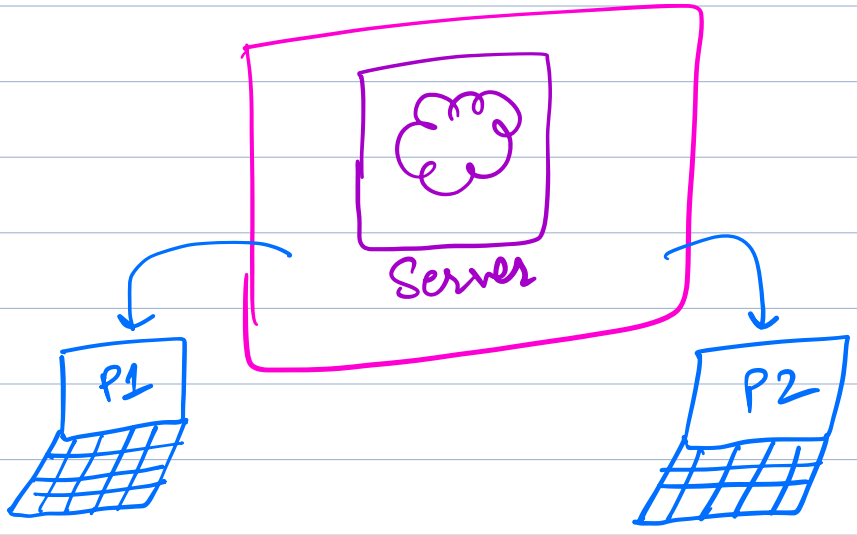


- SVN
- Perforce

Cons

1. SPOF
2. You need to be always online to contribute

Decentralized Version Control System



- Github / Gitlab
- Bitbucket

Pros

1. No SPOF
2. No need to be always online to contribute

Cons

1. Vulnerability - Data Leak chances are more
2. More merge conflicts