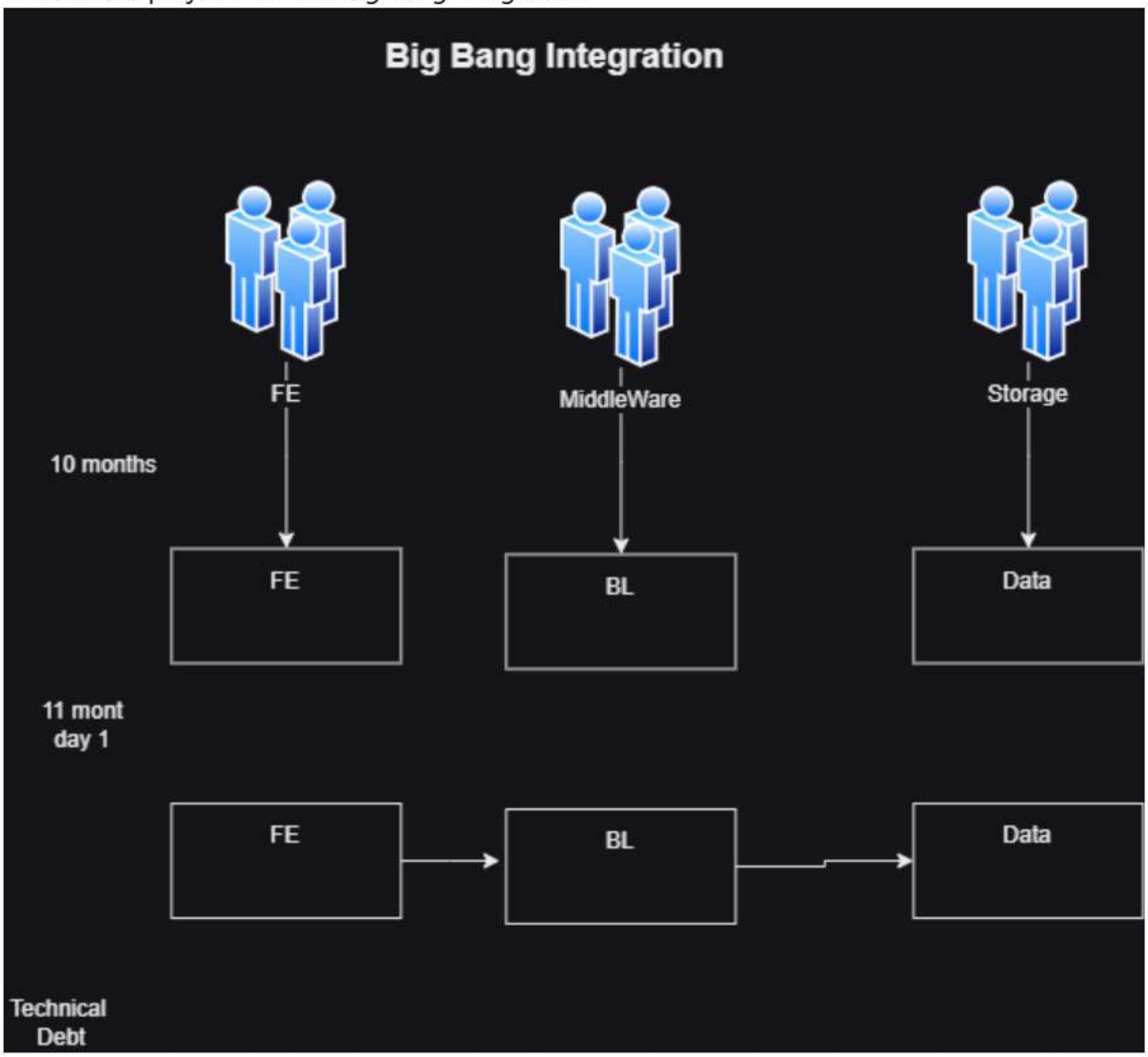
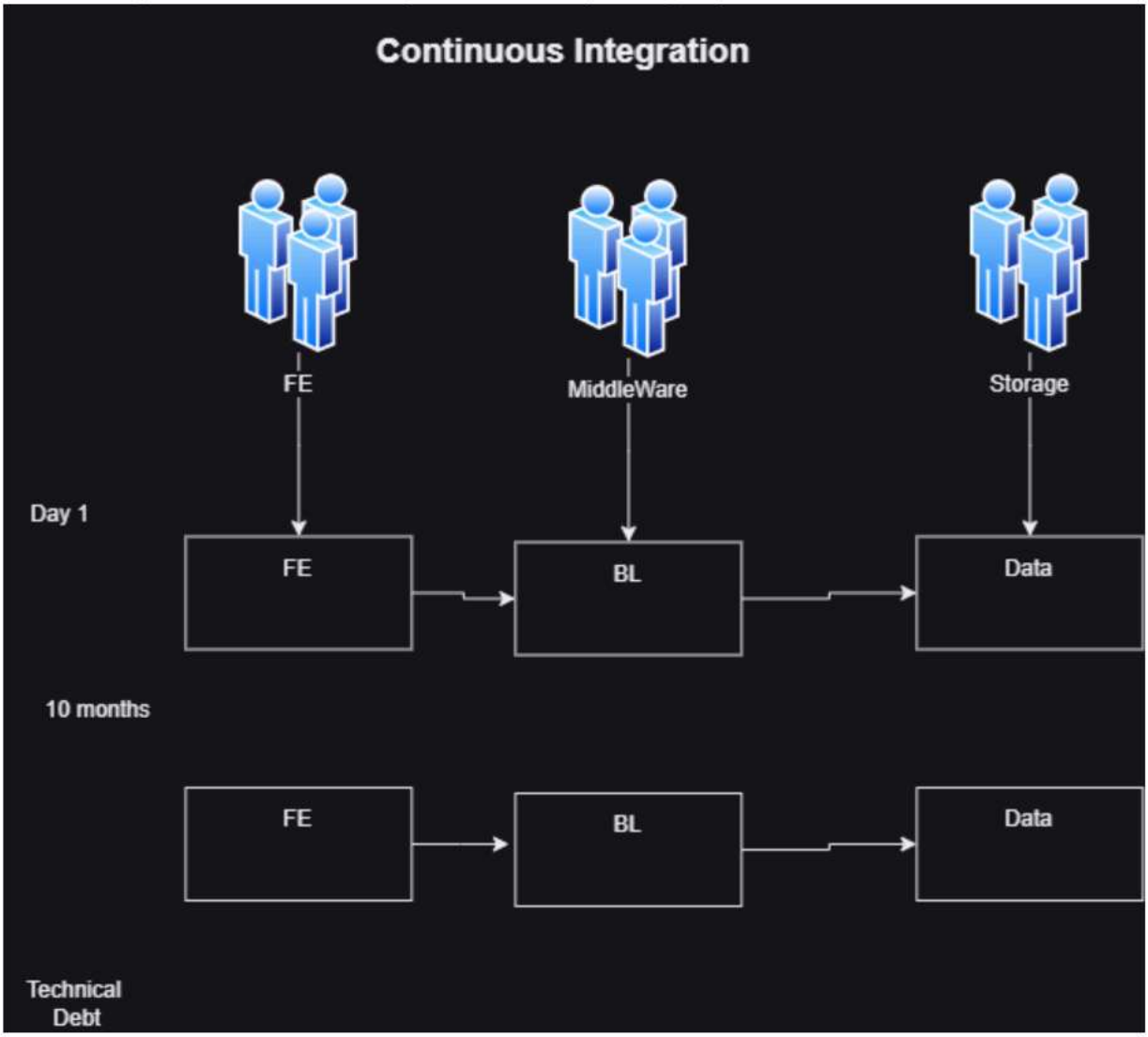
Continuous Integration (CI) and Continuous Deployment | Delivery (CD)

- Historical Perspective:
  - Dev and Ops were two different teams serving same customer with different goals
  - Most of the projects use the Big Bang Integration



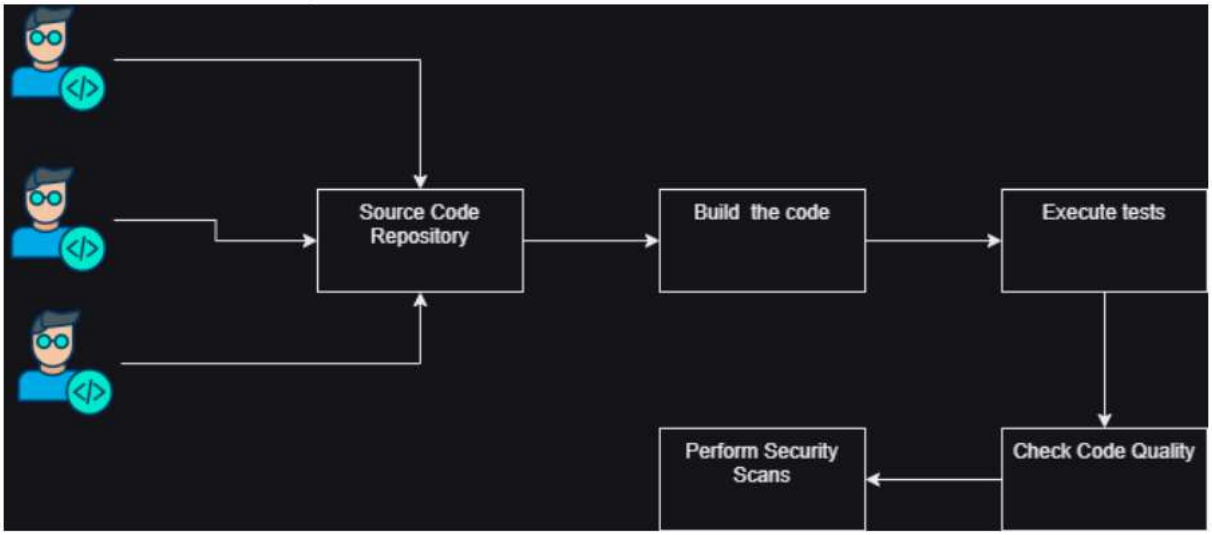
Continuous Integration (CI)

- Ensure integration is done from day 1 and for every change ny dev team



- To perform CI, certain softwares were introduced
  - Cruise control
  - ..
  - Hudson
  - ..
  - Jenkins
  - ..
  - GitLab
  - Azure DevOps
  - Code Pipelines
  - Github Actions
- What is meant by integration ?
  - Build the code
  - Create automated tests to check if the components are communicating with each other (integration tests) and run this tests with every change submitted by developers
  - Check the code quality (Quality Gate)

- Scan the code for security issues



Version Control System (Source code Repository)

- Find out where is code of
  - Linux
  - Visual Studio Code
- For each of this findout what is the latest change
- Version control systems allow us to
  - store code in a common location
  - many developers can work simulataneously on the code
  - history of changes
  - Branches
- Examples of Version Control Systems
  - CVS
  - SVN
  - Visual Source Safe
  - Clearcase
  - Perforce
  - Mercurial
  - TFS
  - Git