

- Continuous Integration (Rebase) to make sure that Team B is starting work on the latest version of code.
- Continuous Delivery to deliver production ready code.
- Continuous Deployment to automate deployment process.
- Jenkins Terminology:
  - Project —> Jobs (Freestyle, Pipeline, Github Org, Folder (multi teams), Multi-branch Pipeline, Setup Job
    - **Multi-branch:** My role was to manage Feature and Master branch.
    - Feature branch: As soon as developers pushes the change it triggers —> unit test —> Component test -> Optional: deploy feature branch directly to development environment
    - Master branch: Unit test —> Integration test —> Container built (Docker) —> Container Scanning (Vulnerabilities oot Container level #checkmarks) —> Deploy to test environment —> Functional test —> During a Sprint, use release(tags) —> Triggers another pipeline responsible for production environment
  - Build(Add Build Step) with Parameters—> Build Triggers —> Build Environment —> Artifacts and Repo (fingerprints) (workspace)
  - Build Tools (maven - pom.xml) (Ant: build.xml)
  - SCM: git config -> git clone -> +x permission -> configure Github: (GitHub hook —> add creds —> github trigger)
  - Testing —> Install ant/maven —> setup ssh —> build steps —> Post Build Actions
  - Notifications —> Jenkins Config —> SMTP server notification —> Post Build Actions
  - Distributed Builds —> Master-Agent —>Managed Nodes
  - Plugins: Ant, LDAP, Pipeline, SSH, GitHub, Gradle...
  - Security: Global Security ON —> Manage Jenkins (AccessContro)
  - Backup: JENKINS\_HOME
- Build Process
  - Start Jenkins —> Install Plugins for the Build Tool
  - Global Config Steps
  - Create Pipeline that uses build tool
  - Update tools config files (.xml)
- Jenkins Process
  - Code Commit to SCM
  - Jenkins server detect Commit
  - Jenkins server pull those changes and start new build
  - if build fails —> notify teams
  - If build successful —> Deploy build in test server
  - After testing —> generate feedback —> Notify
- Jenkins Installation
  - Jenkins Master:
    - wget jenkins.repo
    - import jenkins.io.key
    - install Jenkins, java, git
    - enable Jenkins and restart Jenkins

- Port: 8080

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