

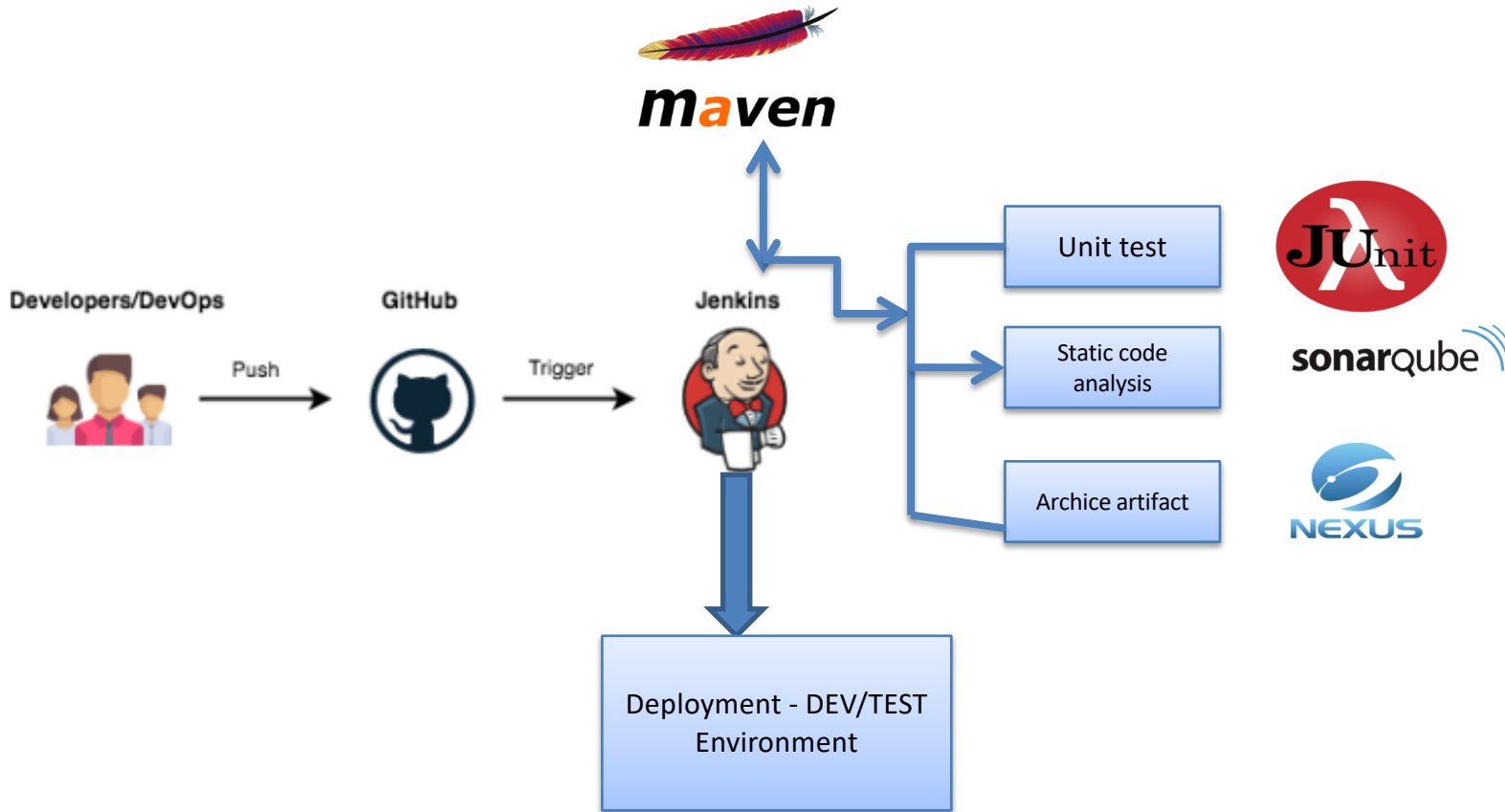
Hackathon Use Case

Build CI/CD Deployment

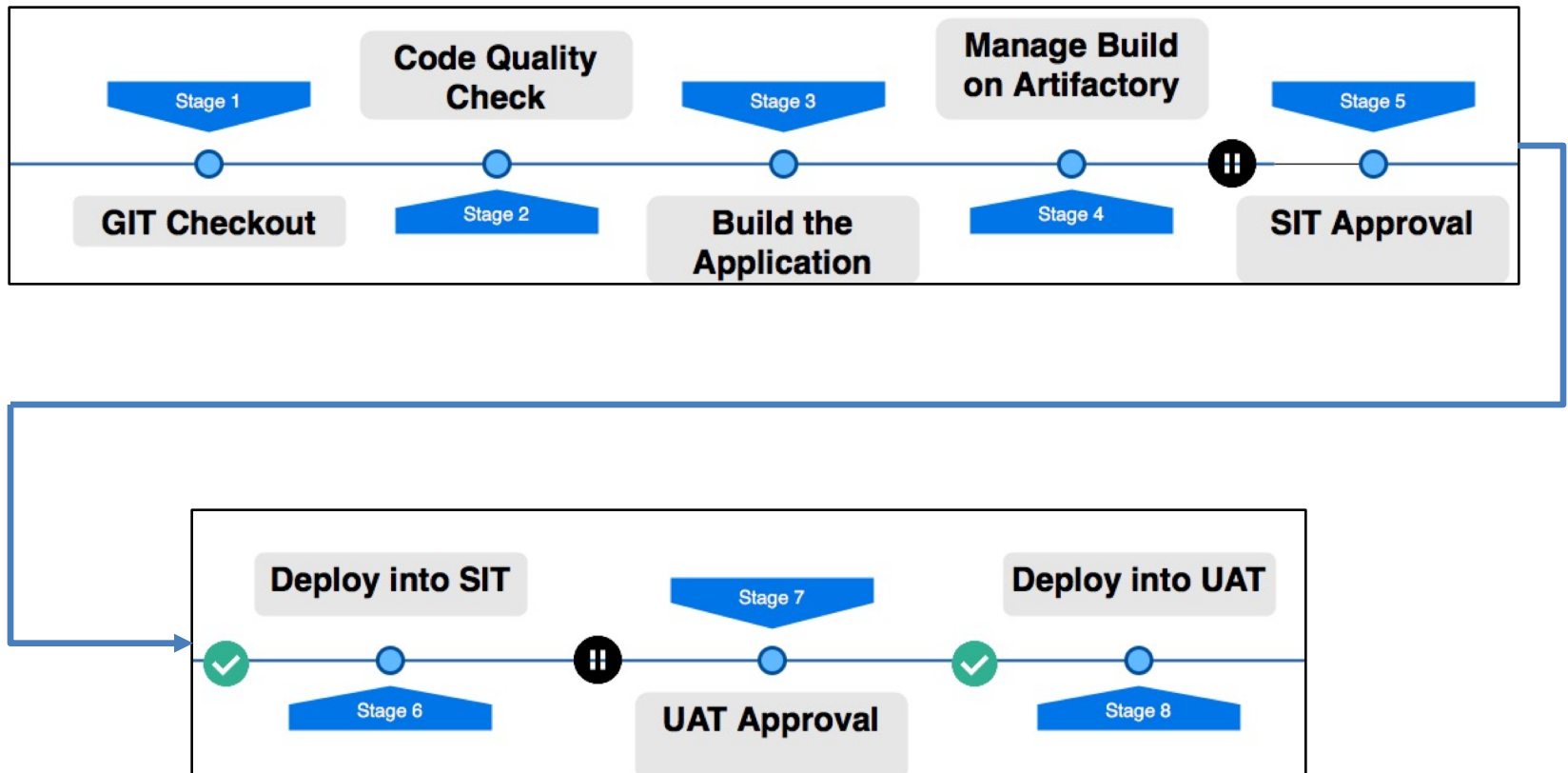
HW/SW Tool Configuration

- Operating Systems: RHEL/Ubuntu (AWS Free tier/ Azure)
- RAM: 8GB
- CPU: 2
- ~~➤ DB: MySQL~~
- Hard Disk: 20GB
- JDK 1.8
- Git (latest)
- Jenkins (latest)
- Maven (latest)
- SonarQube (latest)
- Nexus (latest)
- ~~➤ Node~~
- ~~➤ NPM~~
- ~~➤ MySQL~~

CI/CD WORKFLOW (Representational)



Use Case flow



Use Case - Description

- Setup CI/CD pipeline with required set of tools as specified on a given linux distribution (Linux Instance)
- Create Jenkins Job to Build and Deploy the given application including build promotion
 - Implement Declarative Scripting (Groovy DSL) (Pipeline as code)
 - For Java
 - Clone Java code from Github URL (<https://github.com/kallamvamsikrishnareddy/GeneralSpringBootProgExce.git>)
 - Implement Static code analysis with SonarQube for code coverage on the project, quality gates to detects bugs, vulnerabilities and other important metrics
 - Publish the Project on to the Sonarqube server
 - Wait for Approval from SIT Owner
 - Deploy the application on SIT Server (Post approval)
 - Wait for Approval from UAT Owner
 - Demo on SIT environment (Mandatory)
 - Ansible Playbook to promote the Build artifacts to UAT post approval
 - Demo on UAT environment