



# Basic CI/CD Pipeline with Jenkins

<https://www.jenkins.io/>

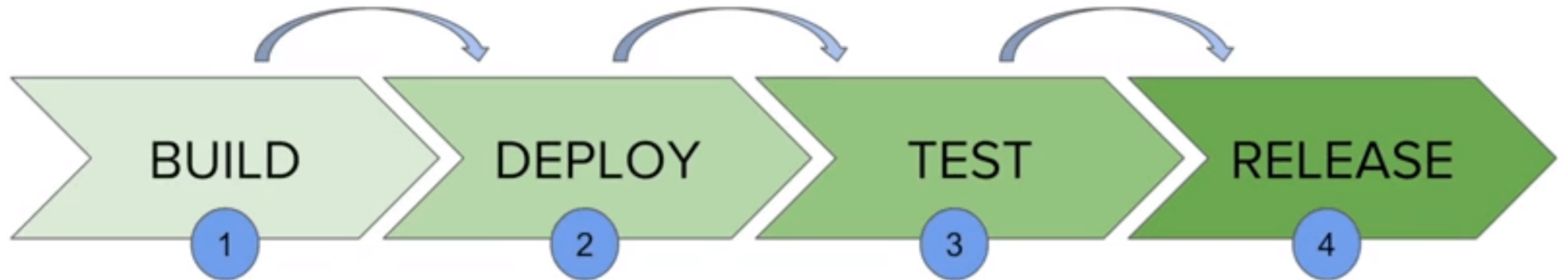
# Case Study

- Client have a portfolio of web applications that are somewhat unstable due to frequency of changes to the source code
- Client would like to implement automation to lower application deployment overhead

## Solution

- Build out flexible CI/CD pipelines for each web application in portfolio

# CI/CD pipeline overview



# Jenkins Setup on Linux

```
$ apt install docker -y # install dependencies (jenkins/docker)
$ docker pull jenkins/jenkins:lts-jdk11
$ docker run -p 8080:8080 jenkins/jenkins:lts-jdk11
$ docker run -p 8080:8080 -p 5000:5000 jenkins/jenkins:lts-jdk11
```

# Basic Pipeline Example

“ Jenkinsfile (Declarative Pipeline) ”

```
pipeline {  
  agent any  
  stages {  
    stage('Build') {  
      steps {  
        echo 'building application'  
      }  
    }  
    stage('Deploy') {  
      steps {  
        echo 'deploy application'  
      }  
    }  
    stage('Test') {  
      steps {  
        echo 'testing application'  
      }  
    }  
    stage('Release') {  
      steps {
```

# DEMO Notes:

- 1. open web browser: `localhost:8080`
- 2. new item > enter item name "my-basic-pipeline" > select pipeline > OK
- 3. `Pipeline` tab > Script text box
- 4. copy and paste contents of `basic pipeline example` from previous slide
- 5. `Build Now`

# References

- <https://www.jenkins.io/pipeline/getting-started-pipelines/>
- <https://docs.docker.com/engine/install/>
- <https://git-scm.com/book/en/v2/Getting-Started-Installing-Git>