PIPELINE SCRIPT:

```
pipeline {
  agent any
    environment {
        DIRECTORY_PATH = "/"
        TESTING_ENVIRONMENT = "test"
        PRODUCTION_ENVIRONMENT = "harsh"
        }


  stages {
    stage('Build') {
      steps {
        echo 'fetch the source code from the directory path specified by the environment
variable'
                        echo 'compile the code and generate any necessary artifacts'
      }
    }
    stage('Unit and Integration Tests') {
      steps {
        echo 'Running unit tests'
                        echo 'Running integration tests'
      }
      post {
        success {
          emailext body: "The Unit and Integration Test is successful.",
          subject: "Testing Stage Success",
          to: "harshthadeshwar123@gmail.com"
        }
      }
```

```groovy
        }
                stage('Code Quality Check') {
    steps {
        echo 'check the quality of the code'
    }
}
stage('Security Scan') {
    steps {
        echo 'used checkstyle, pmd, etc. to scan the code for vulnerabilities...'
    }
    post {
        success {
            emailext body: "The Security scan is successful.",
                subject: "Security Stage Success",
                to: "harshthadeshwar123@gmail.com"
        }
    }
}
stage('Deploy') {
    steps {
        echo 'deploy the application to staging server, an EC2 instance...'
    }
}
stage('Integration test on staging') {
    steps {
        echo 'Integration test running on staging server...'
    }
}
        stage('Approval') {
```

```
        steps {

            echo 'waiting for approval by the admin....'

                        sleep 10

        }

    }

            stage('Deploy to Production') {

        steps {

            echo 'deploying code to prod environment (${env.PRODUCTION_ENVIRONMENT})'

        }

    }

  }

}
```

CONSOLE OUTPUT:

Started by user [Harsh Thadeshwar](#)

[Pipeline] Start of Pipeline

[Pipeline] node

Running on [Jenkins](#) in C:\ProgramData\Jenkins\.jenkins\workspace\GenericCDPipeline

[Pipeline] {

[Pipeline] withEnv

[Pipeline] {

[Pipeline] stage

[Pipeline] { (Build)

[Pipeline] echo

fetch the source code from the directory path specified by the environment variable

[Pipeline] echo

compile the code and generate any necessary artifacts

[Pipeline] }

[Pipeline] // stage

[Pipeline] stage

[Pipeline] { (Unit and Integration Tests)

[Pipeline] echo

Running unit tests

[Pipeline] echo

Running integration tests

Post stage

[Pipeline] emailext

Sending email to: harshthadeshwar123@gmail.com

[Pipeline] }

[Pipeline] // stage

[Pipeline] stage

[Pipeline] { (Code Quality Check)

[Pipeline] echo

check the quality of the code

[Pipeline] }

[Pipeline] // stage

[Pipeline] stage

[Pipeline] { (Security Scan)

[Pipeline] echo

used checkstyle, pmd, etc. to scan the code for vulnerabilities...

Post stage

[Pipeline] emailext

Sending email to: harshthadeshwar123@gmail.com

[Pipeline] }

[Pipeline] // stage

[Pipeline] stage

[Pipeline] { (Deploy)

[Pipeline] echo

deploy the application to staging server, an EC2 instance...

[Pipeline] }

[Pipeline] // stage

[Pipeline] stage

[Pipeline] { (Integration test on staging)

[Pipeline] echo

Integration test running on staging server...

[Pipeline] }

[Pipeline] // stage

[Pipeline] stage

[Pipeline] { (Approval)

[Pipeline] echo

waiting for approval by the admin....

[Pipeline] sleep

Sleeping for 10 sec

[Pipeline] }

[Pipeline] // stage

[Pipeline] stage

[Pipeline] { (Deploy to Production)

[Pipeline] echo

deploying code to prod environment (${env.PRODUCTION_ENVIRONMENT})

[Pipeline] }

[Pipeline] // stage

[Pipeline] }

[Pipeline] // withEnv

[Pipeline] }

[Pipeline] // node

[Pipeline] End of Pipeline

Finished: SUCCESS