EXP NO: 2	Create CI pipeline using Jenkins
DATE:	

AIM: -

To create CI pipeline using Jenkins

ALGORITHM / PROCEDURE: -

1. In Jenkins, create a new job by selecting New Item, entering a job name, choosing Pipeline, and clicking OK.
2. Under the Pipeline section, select Pipeline script from SCM and specify Git as the SCM, then add your repository URL and credentials if necessary.
3. In your code repository, create a Jenkinsfile in the root directory to define the pipeline stages.
4. Add stages to the Jenkinsfile for tasks like building, testing, and deploying your application.
5. Configure a webhook in your repository to trigger the Jenkins pipeline on every code push.
6. In Jenkins, save the job configuration, then click Build Now to test the pipeline.
7. Check each stage's output in Console Output to review the build, test, and deployment status, and access any saved artifacts.

CODING: -

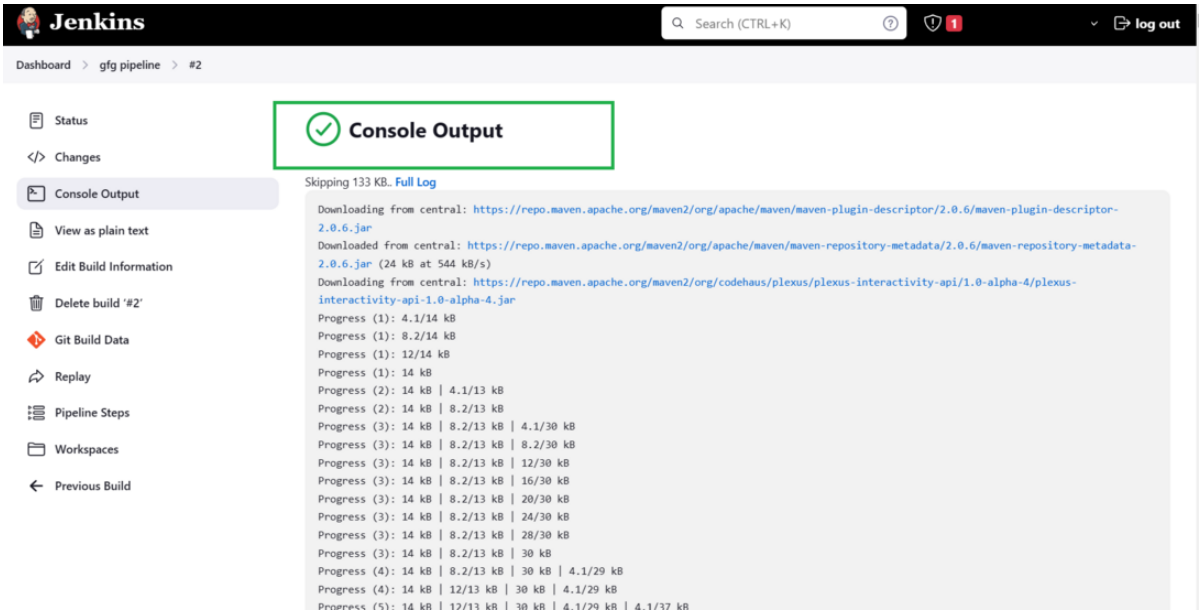
Jenkins File:

```
pipeline {
    agent any
    stages {
        stage('Clone') {
            steps {
                git 'https://github.com/your-repository.git' // Clone the repository
            }
        }
        stage('Build') {
```

```
        steps {
            sh './build-script.sh' // Run build commands (e.g., compile code)
        }
    }
    stage('Test') {
        steps {
            sh './test-script.sh' // Execute test scripts
        }
    }
    stage('Static Analysis') {
        steps {
            sh './lint-script.sh' // Perform static code analysis
        }
    }
    stage('Package') {
        steps {
            sh './package-script.sh' // Package application (e.g., JAR or ZIP)
        }
    }
    stage('Deploy') {
        steps {
            sh './deploy-script.sh' // Deploy to staging or production
        }
    }
    stage('Notify') {
        steps {
            mail to: 'team@example.com', subject: "Build ${currentBuild.fullDisplayName}", body:
"Build completed with status: ${currentBuild.result}"
        }
```

```
        }
    }
    post {
        always {
            archiveArtifacts artifacts: '**/target/*.jar', allowEmptyArchive: true // Save artifacts
        }
    }
}
```

OUTPUT: -



RESULT: -

Thus we successfully created the CI pipeline using jenkins.