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Creating Studentapp Artifact using Gradle and Hosted it using Jenkins Pipeline

Code:

```
pipeline{
    agent{
        label 'agent1'
    }


    stages{
        stage("Install Gradle")
        {
            steps{
                sh "sudo apt-get update"
                sh "sudo apt-get install gradle -y"
            }
        }

        stage('Pull a file from git')
        {
            steps{
                git 'https://github.com/Mayur2905/studentapp-ui.git'
            }
        }
        stage('Build the code')
        {
            steps{
                sh  'gradle  clean'
                sh 'gradle build'
            }
        }
        stage('Testing the code')
        {
            steps{
                sh 'gradle test'
            }
        }
        stage('Downloading Tomcat 8')
        {
            steps{
                sh 'sudo wget
https://dlcdn.apache.org/tomcat/tomcat-8/v8.5.99/bin/apache-tomcat-8.5.99.
tar.gz'
                sh 'sudo tar -xvf apache-tomcat-8.5.99.tar.gz'
            }
        }
        // moveing the war file to the tomcat webapps folder
        stage('Deploying war file')
        {
            steps{
                sh" sudo mvbuild/lib/*.war
apache-tomcat-8.5.99/webapps/student.war"
            }
        }
        stage('Starting Apache 8')
        {
            steps{
                sh 'sudo ./apache-tomcat-8.5.99/bin/startup.sh'
            }
        }
    }
}
```

Code Overview:

Overview

This pipeline automates the build, testing, and deployment process of a Java web application using Gradle and Apache Tomcat 8.

Pipeline Structure

- Agent: The pipeline is configured to run on an agent labeled 'agent1'.
- Stages: The pipeline consists of several stages, each representing a distinct phase of the build, test, and deployment process.

Stages

Install Gradle

- This stage installs Gradle by updating the package list and installing Gradle.

Pull a file from git

- This stage clones the studentapp-ui repository (https://github.com/Mayur2905/studentapp-ui.git), which presumably contains the Java web application source code.

Build the code

- This stage cleans the project using gradle clean and then builds the Java web application using gradle build.

Testing the code

- This stage runs the tests for the Java web application using gradle test.

Downloading Tomcat 8

- This stage downloads Apache Tomcat 8.5.99 from the official Apache website and extracts the downloaded archive.

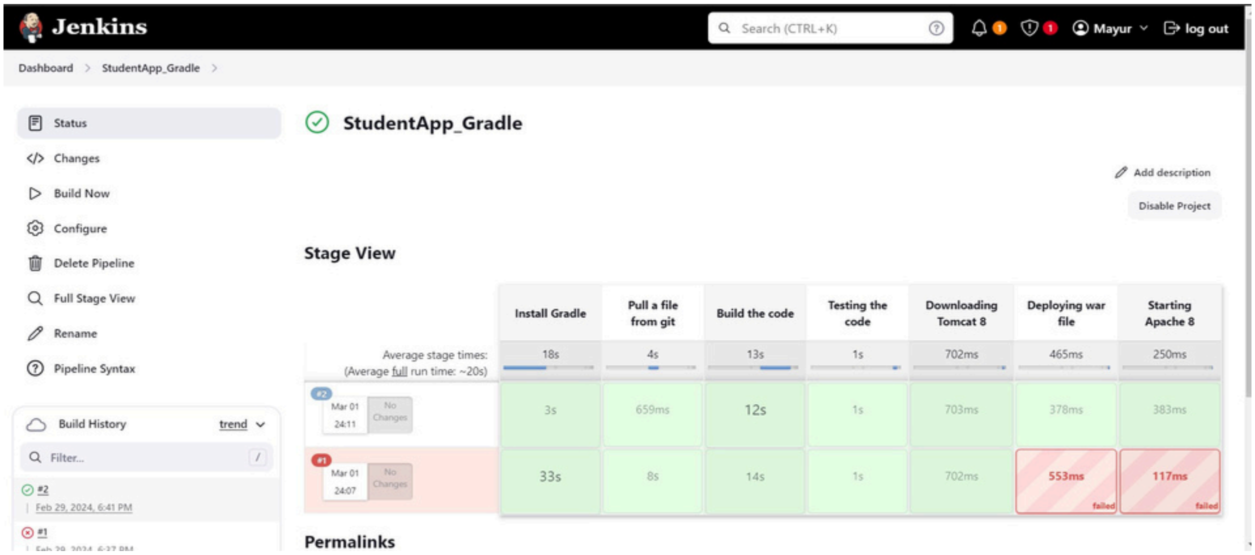
Deploying war file

- This stage moves the built WAR file from the build/lib directory to the webapps directory of Apache Tomcat 8.5.99, effectively deploying the WAR file.

Starting Apache Tomcat 8

- This stage starts Apache Tomcat 8.5.99 using the startup.sh script.

Output:



StudentApp_Gradle

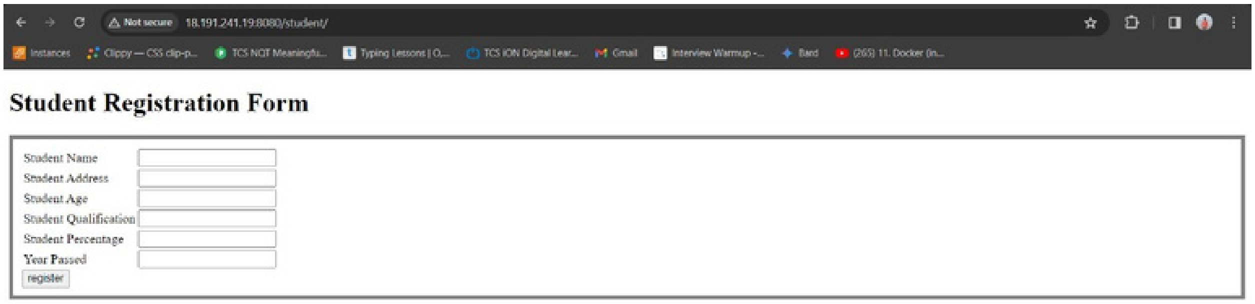
Stage View

	Install Gradle	Pull a file from git	Build the code	Testing the code	Downloading Tomcat 8	Deploying war file	Starting Apache 8
Average stage times: (Average full run time: ~20s)	18s	4s	13s	1s	702ms	465ms	250ms
#2 Mar 01 24:11 No Changes	3s	659ms	12s	1s	703ms	378ms	383ms
#1 Mar 01 24:07 No Changes	33s	8s	14s	1s	702ms	553ms failed	117ms failed

#2 Feb 29, 2024, 6:41 PM

#1 Feb 29, 2024, 6:37 PM

Permalinks



Student Registration Form

Student Name

Student Address

Student Age

Student Qualification

Student Percentage

Year Passed

register