

FINAL PROJECT – KIRUBA R P (22ITR046) IT – ‘A’

1. Jenkins Pipeline output:

The screenshot shows the Jenkins Pipeline dashboard for a pipeline named 'final_project_pipeline'. The pipeline is in a successful state, indicated by a green checkmark. The 'Stage View' section displays a table of stages and their durations.

Stage	Checkout Code	Build Docker Image	Login to Docker Hub	Push Docker Image	Deploy Docker Container	Declarative: Post Actions
Average stage times: (full run time: ~37s)	2s	2s	4s	23s	1s	309ms
#1	2s	2s	4s	23s	1s	309ms

The 'Builds' section shows a list of builds, with the most recent build (#1) completed successfully at 8:40 pm. The 'Permalinks' section provides links to the last build, last stable build, last successful build, and last completed build, all of which are the same build (#1).

2. Jenkins Console output :

The screenshot shows the Jenkins Console Output for a pipeline named 'final_pipeline'. The console output displays the execution of a pipeline, starting with the user 'kiruba' and the pipeline name 'final_pipeline'. The output shows the pipeline running on Jenkins in the workspace '/var/lib/jenkins/workspace/final_pipeline'. The pipeline consists of several stages, including 'Tool Install', 'Clean Workspace', and 'Post Actions'. The console output is displayed in a light blue box with a green checkmark indicating success.

3.Minikube status :

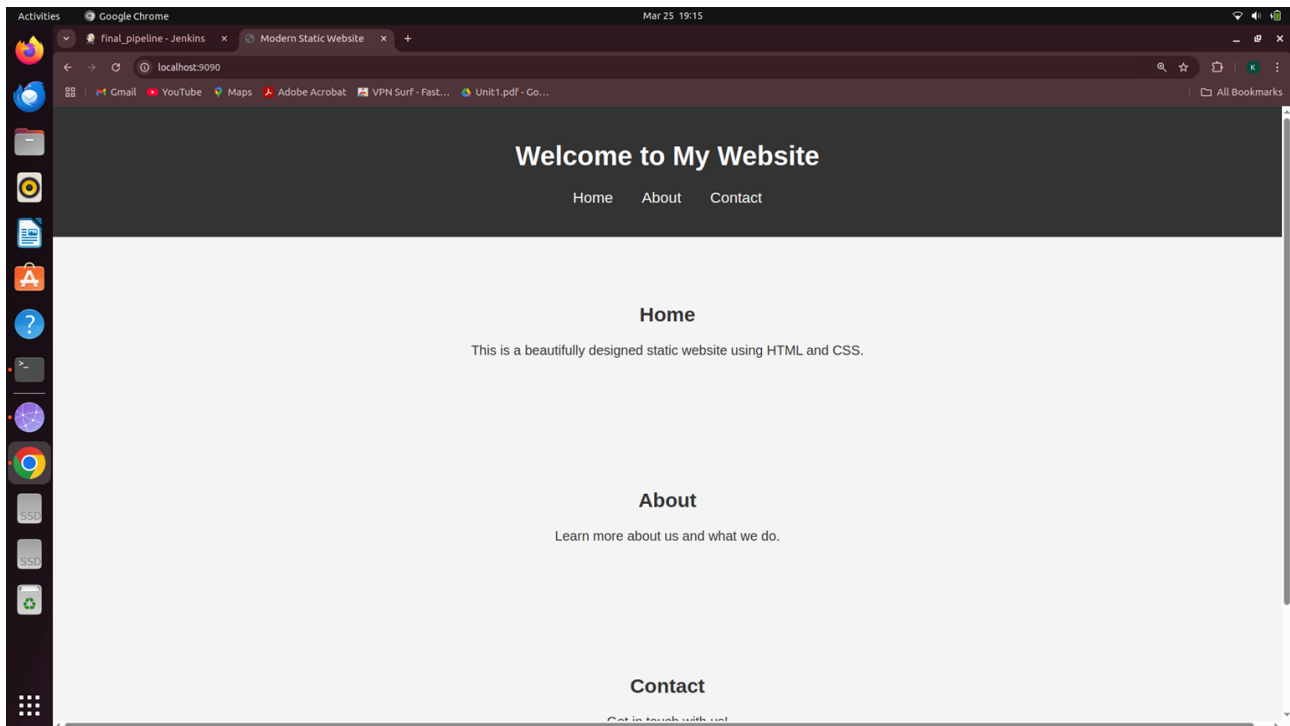
```
kiruba@kiruba-HP-EliteBook-840-G4:~$ minikube version
minikube version: v1.35.0
commit: dd5d320e41b5451cdf3c01891bc4e13d189586ed-dirty
kiruba@kiruba-HP-EliteBook-840-G4:~$ minikube status
minikube
type: Control Plane
host: Running
kubelet: Running
apiserver: Running
kubeconfig: Configured
kiruba@kiruba-HP-EliteBook-840-G4:~$
```

4.Docker Repository :

The screenshot shows the Docker Hub interface for a repository named 'kirubarp/final_repo'. The page includes a sidebar with navigation options like 'Repositories', 'Settings', 'Default privacy', 'Notifications', 'Billing', 'Usage', 'Pulls', and 'Storage'. The main content area displays the repository details, including the tag 'latest' and a table of tags. A 'Tags' table is shown with columns for Tag, OS, Type, Pulled, and Pushed. The 'latest' tag is listed with OS 'linux', Type 'Image', Pulled 'less than 1 day', and Pushed 'about 8 hours'. A 'Repository overview' section is also visible at the bottom.

Tag	OS	Type	Pulled	Pushed
latest	linux	Image	less than 1 day	about 8 hours

5. Webiste Output :



Pipeline script :

```
pipeline {
  agent any
  tools {
    jdk 'jdk21'
    nodejs 'node20'
  }

  environment {
    IMAGE_NAME = "kirubarp/final_repo"
    CONTAINER_NAME = "static-website-container"
    TAG = "latest"
    DEPLOYMENT_FILE = "deployment.yaml"
    KUBECONFIG = "/var/lib/jenkins/.kube/config"
  }

  stages {
    stage('Setup Minikube Docker') {
      steps {
        script {
          sh "eval \$(minikube docker-env)"
        }
      }
    }
  }

  stage('Clean Workspace') {
    steps {

```

```

        script {
            echo "Cleaning workspace..."
            deleteDir()
        }
    }
}

stage('Git Checkout') {
    steps {
        script {
            git branch: 'main',
            credentialsId: 'github_seccred',
            url: 'https://github.com/Kiruba-Prakasan/final_repo.git'
        }
    }
}

stage('Docker Build & Push to Minikube') {
    steps {
        script {
            sh "docker build -t ${IMAGE_NAME}:${TAG} ."
        }
    }
}

stage('Deploy to Minikube') {
    steps {
        script {
            sh "kubectl apply --validate=false -f ${DEPLOYMENT_FILE}"
        }
    }
}

post {
    success {
        script {
            def minikube_ip = sh(script: 'minikube ip', returnStdout: true).trim()
            echo "Deployment Successful! Website is live at http://${minikube_ip}:30080"
        }
    }
    failure {
        echo "Deployment Failed! Check logs for errors."
    }
}
}

```