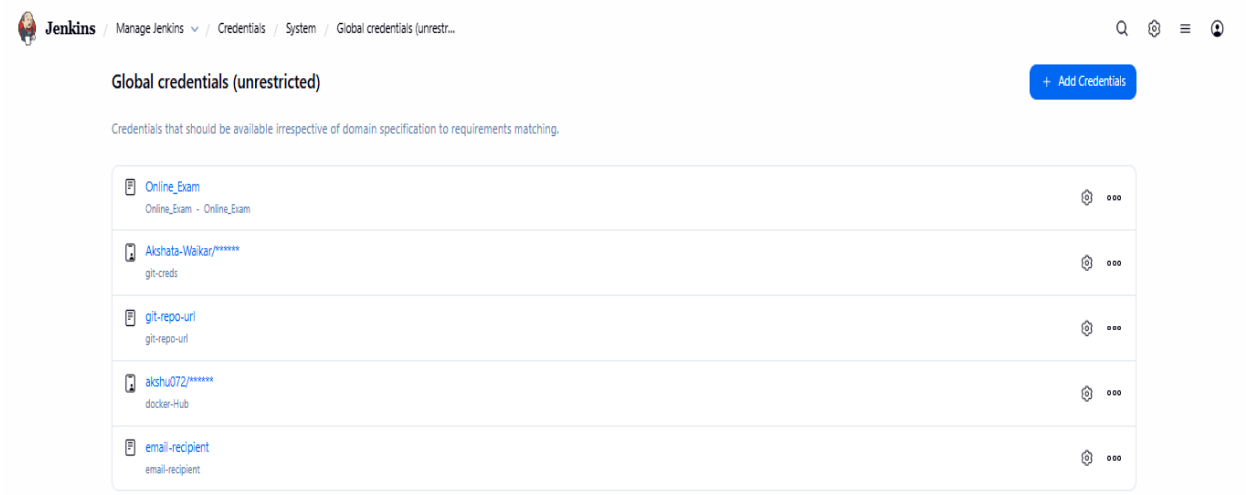
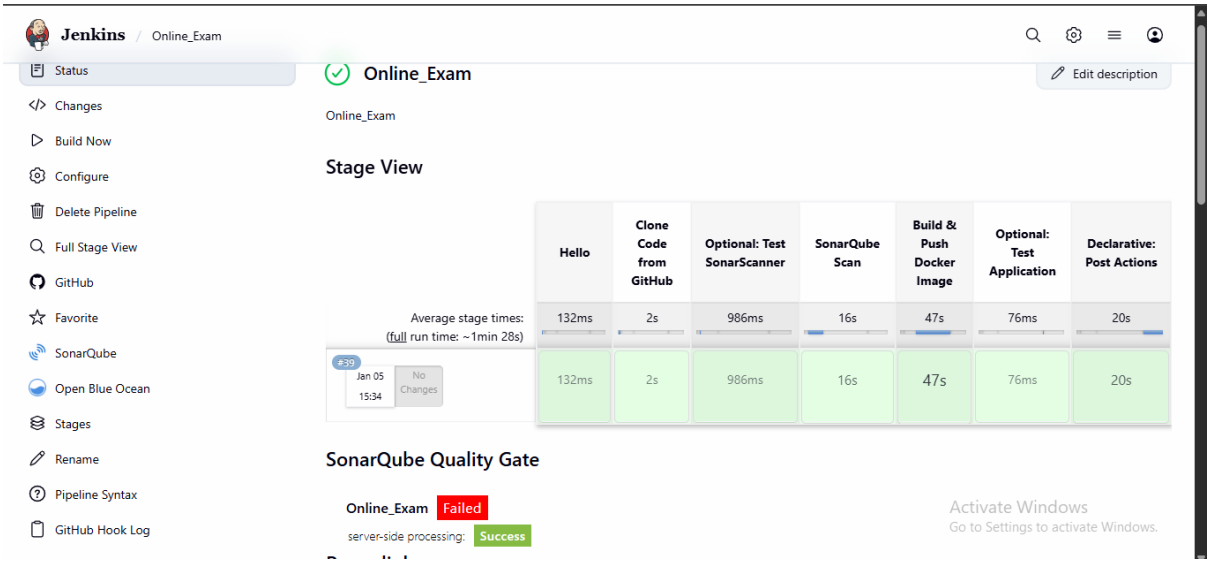
Jenkins pipleline Project

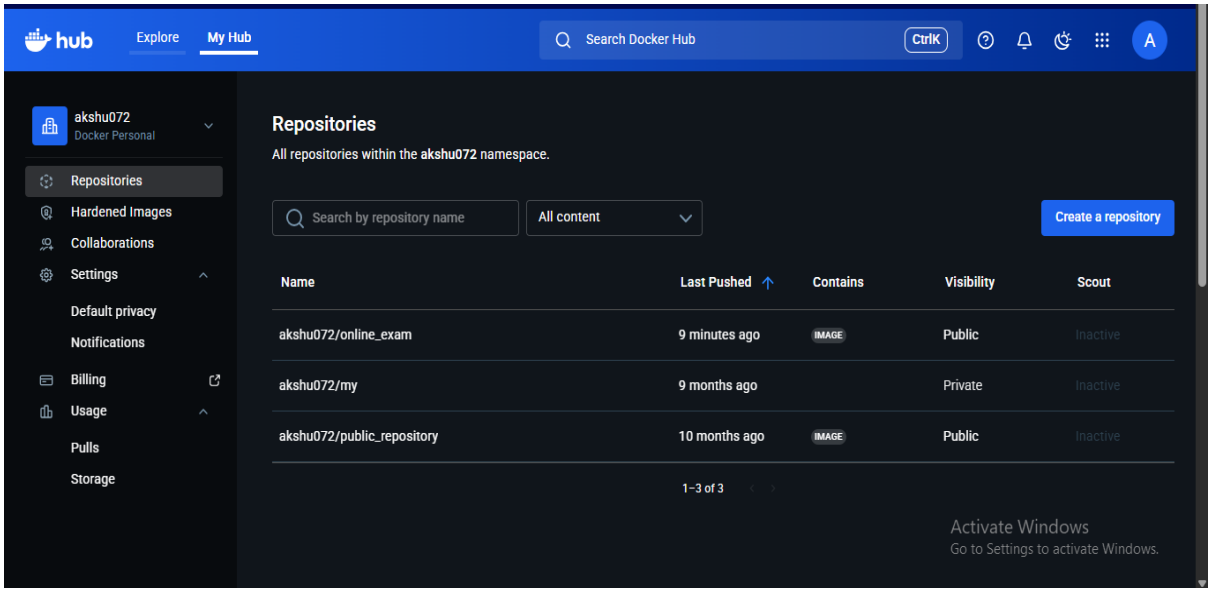
Credentials save in Jenkins:



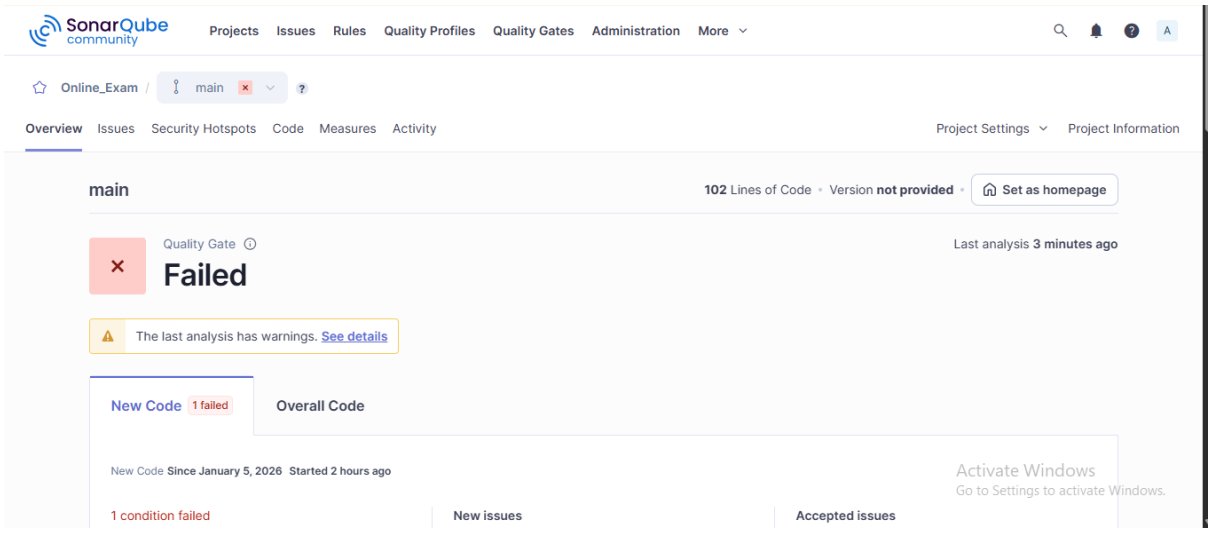
Pipeline run successfully :



Push image to Docker-Hub :



SonarQube :



GitHub repository link : https://github.com/Akshata-Waikar/Online_Exam.git

Jenkins pipeline code :

```
pipeline {
    agent any

    stages {

        stage('Hello') {
            steps {
                echo 'Hello World'
            }
        }

        stage('Clone Code from GitHub') {
            steps {
                script {
                    echo 'Cloning repository...'
                    withCredentials([usernamePassword(
                        credentialsId: 'git-creds',
                        usernameVariable: 'GIT_USER',
                        passwordVariable: 'GIT_TOKEN'
                    )]) {
                        bat """
                        if exist project rmdir /s /q project
```

```
                git clone
https://%GIT_USER%:%GIT_TOKEN%@github.com/Akshata-
Waikar/Online_Exam.git project
                """
            }
        }
    }

    stage('Optional: Test SonarScanner') {
        steps {
            echo 'Checking if SonarScanner CLI is available...'
            bat 'C:\\sonar-scanner-7.3.0.5189-windows-x64\\bin\\sonar-scanner -v
|| echo "SonarScanner not found"'
        }
    }

    stage('SonarQube Scan') {
        steps {
            script {
                withSonarQubeEnv('sonar-local') {
                    withCredentials([string(credentialsId: 'Online_Exam', variable:
'SONAR_TOKEN')]) {
                        bat """
                        cd project
                        C:\\sonar-scanner-7.3.0.5189-windows-x64\\bin\\sonar-
scanner ^
                          -Dsonar.projectKey=Online_Exam ^
                          -Dsonar.sources=. ^
```

```
                    -Dsonar.host.url=%SONAR_HOST_URL% ^
                    -Dsonar.login=%SONAR_TOKEN%
                """
            }
        }
    }
}

stage('Quality Gate') {
    steps {
        script {
            timeout(time: 5, unit: 'MINUTES') { // wait max 5 min for Quality Gate
                def qg = waitForQualityGate()
                echo "Quality Gate status: ${qg.status}"
                if (qg.status == 'OK') {
                    echo "Quality Gate passed successfully."
                } else {
                    error "Pipeline aborted due to Quality Gate failure: ${qg.status}"
                }
            }
        }
    }
}

stage('Build & Push Docker Image') {
```

```
        steps {
            script {
                withCredentials([usernamePassword(
                    credentialsId: 'docker-Hub',
                    usernameVariable: 'DOCKER_USER',
                    passwordVariable: 'DOCKER_PASSWORD'
                )]) {
                    bat """
                    echo %DOCKER_PASSWORD% | docker login -u
%DOCKER_USER% --password-stdin
                    docker build -t akshu072/online_exam:latest project
                    docker push akshu072/online_exam:latest
                    """
                }
            }
        }
    }

    stage('Optional: Test Application') {
        steps {
            echo 'You can add any application tests here if needed'
        }
    }
}

post {
    always {
        echo 'Cleaning up...'
```

```
            bat 'docker logout'
        }

        success {
            echo 'Build Succeeded! Sending email...'
            withCredentials([string(credentialsId: 'email-recipient', variable: 'EMAIL_TO')]) {
                emailext(
                    subject: "SUCCESS: Jenkins Build ${currentBuild.fullDisplayName}",
                    body: """<p>Good news! Your Jenkins build succeeded.</p>
                        <p>Build URL: ${env.BUILD_URL}</p>""",
                    to: "${EMAIL_TO}",
                    mimeType: 'text/html'
                )
            }
        }

        failure {
            echo 'Build Failed! Sending email...'
            withCredentials([string(credentialsId: 'email-recipient', variable: 'EMAIL_TO')]) {
                emailext(
                    subject: "FAILURE: Jenkins Build ${currentBuild.fullDisplayName}",
                    body: """<p>Oops! Your Jenkins build failed.</p>
                        <p>Check console output here: ${env.BUILD_URL}</p>""",
                    to: "${EMAIL_TO}",
                    mimeType: 'text/html'
```

```
            )
        }
    }
  }
}
```

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