AUTOMATION OF JENKINS PIPELINE SCRIPT

Task Documentation: Automating Pipeline Script
Role: Automation developer
Date: 30-07-2024 [DEMO PROJECT]

Tools Used:
- Jenkins
- Git
- Windows Environment

Steps:

1. Collect Script from Git Repository:
   - Retrieve the pipeline script from the Jenkins team's Git repository.

2. Review Provided Script:
   - Analyze and understand the key components and steps.

3. Environment Setup:
   - Configure Jenkins.
   - Set up Git for version control.

4. Script Modification:
   - Integrate automated tasks into the Jenkins pipeline script.
   - Use `bat` commands for Windows-specific operations.

5. Implement Automated Testing:
   - Design and integrate automated tests.
   - Example pipeline snippet:

PIPELINE SCRIPT :-

```
pipeline {
    agent any
     stages {
        stage('Checkout Repositories') {
            parallel {
                stage('Checkout Project-Development') {
                    steps {
                        dir('Project-Development') {
                            git branch: 'master', url: 'https://github.com/SucharithaSathupalli01/Project-Development.git'
                        }
                    }
                }
                stage('Checkout Project-UAT') {
                    steps {
                        dir('Project-UAT') {
                            git branch: 'master', url: 'https://github.com/SucharithaSathupalli01/Project-UAT.git'
                        }
                    }
                }
                stage('Checkout Project-Production') {
                    steps {
                        dir('Project-Production') {
                            git branch: 'master', url: 'https://github.com/SucharithaSathupalli01/Project-Production.git'
                        }
                    }
                }
            }
        }
        stage('Configure Git User') {
            steps {
                echo 'Configuring Git user...'
                bat '''
                git config --global user.name "harish"
                git config --global user.email "harishcloud1810@gmail.com"
                '''
                echo 'Git user configured.'
            }
        }
        stage('Commit and Push Changes') {
            steps {
                echo 'Committing and pushing changes...'
                dir('Project-Development') {
                    bat '''
                    echo Current directory: %cd%
                    git status
                    git add .
                    git commit -m "created"
                    git push origin master
                    '''
                }
            }
        }
    }
}
```

6. Develop Automation Scripts:
   - Create scripts for repetitive tasks and integrate them into the pipeline.

7. Testing and Validation:
   - Test the pipeline script to ensure all tasks execute correctly.

8. Documentation and Maintenance:
   - Document changes and provide maintenance instructions.

Outcome:

- Successfully automated the pipeline script, ensuring efficient build and testing processes.
- The script is version controlled in Git for future updates.