**1.GIT-HOL**

**GIT SETUP GUIDE**

Git is a powerful version control system used to track changes in code and collaborate with others. In this lab, you'll learn to install and configure Git, set Notepad++ as the default editor, and perform basic Git operations like commit, push, and pull using Git Bash.

**Objectives:**  
- Learn and practice basic Git commands: git init, git status, git add, git commit, git push, git pull  
- Configure Git on your machine with your username and email  
- Set Notepad++ as the default Git editor  
- Create and track a file in a Git repository  
- Push changes to a remote repository on GitLab

**Requirements:**

- Install Git Bash client  
- Install Notepad++  
- Create a free GitLab account (Do not use Cognizant credentials)

**Step 1**: Setup Git Configuration

1. Verify Git Installation:  
 git --version

2. Configure User Information:  
 git config --global user.name "Your Name"  
 git config --global user.email "your@email.com"

3. Verify Configuration:  
 git config --list

**Step 2**: Integrate Notepad++ as Default Editor

1. Check if Notepad++ works:  
 notepad++

2. If not recognized, add path of notepad++.exe to Environment Variables

3. Create an Alias:  
 alias np='notepad++'  
 echo "alias np='notepad++'">> ~/.bashrc

4. Set Notepad++ as Git Default Editor:  
 git config --global core.editor "notepad++ -multiInst -nosession"

5. Verify Editor Configuration:  
 git config --global -e

**Step 3**: Create and Manage a Repository

1. Create a New Project:  
 mkdir GitDemo  
 cd GitDemo  
 git init

2. Check Initialization:  
 ls -a

3. Create a File:  
 echo "Welcome to Git Demo!"> welcome.txt

4. Verify File:  
 ls  
 cat welcome.txt

5. Check Git Status:  
 git status

6. Add File to Git Tracking:  
 git add welcome.txt

7. Commit the File:  
 git commit -m "Added welcome.txt file"or use git commit for multi- line message

8. Verify Status:  
 git status

**Step 4**: Connect to Remote Repository

1. Create a Remote Repository on GitLab (Project: GitDemo)

2. Link Remote Repo:  
 git remote add origin <your-gitlab-repo-url>

3. Pull Remote Changes:  
 git pull origin master

4. Push Local Repo to Remote:  
 git push origin master

Git Commands Cheat Sheet

|  |  |
| --- | --- |
| Command | Purpose |
| git init | Initialize a new repository |
| git status | Show current status |
| git add <file> | Stage a file for commit |
| git commit -m "msg" | Commit with a message |
| git pull origin master | Fetch & merge from remote |
| git push origin master | Push local changes to remote |

**Output:**









