Git Hands-On Lab Report

# 1. Objectives

- Get familiar with Git commands: git init, git status, git add, git commit, git push, and git pull.  
- Setup Git configuration and integrate Notepad++ as default editor.  
- Add and commit files to a Git repository.

# 2. Prerequisites

- Git Bash client installed on your machine.  
- Notepad++ installed.  
- A GitLab account (avoid using corporate credentials).

# 3. Git Setup and Configuration

Step-by-step commands:

1. Check Git version:  
 git --version  
  
2. Configure user info:  
 git config --global user.name "Your Name"  
 git config --global user.email "your@email.com"  
  
3. Verify configuration:  
 git config --list

# 4. Integrating Notepad++ as Git Editor

1. Add Notepad++ to PATH via:  
 Control Panel → System and Security → System → Advanced system settings → Environment Variables → Edit 'Path'  
  
2. Test in Git Bash:  
 notepad++  
  
3. Optional alias:  
 alias np='notepad++'  
  
4. Set Notepad++ as default Git editor:  
 git config --global core.editor "notepad++ -multiInst -notabbar -nosession -noPlugin"  
  
5. Verify:  
 git config --global -e

# 5. Creating and Committing to a Git Repository

1. Create and enter directory:  
 mkdir GitDemo  
 cd GitDemo  
  
2. Initialize Git:  
 git init  
  
3. Create a file:  
 echo "Welcome to GitLab project!" > welcome.txt  
  
4. View file:  
 cat welcome.txt  
  
5. Check status:  
 git status  
  
6. Add file:  
 git add welcome.txt  
  
7. Commit with editor:  
 git commit  
  
 Example message:  
 Initial Commit  
 - Added welcome.txt  
 - Project initialized  
  
8. Check status again:  
 git status

# 6. Connect and Push to GitLab

1. Create repository 'GitDemo' on GitLab.  
  
2. Add remote origin (use correct URL):  
 git remote add origin https://gitlab.com/yourusername/GitDemo.git  
  
3. If remote URL was incorrect:  
 git remote remove origin  
 git remote add origin https://gitlab.com/yourusername/GitDemo.git  
  
4. Pull from remote (merge histories):  
 git pull origin master --allow-unrelated-histories  
  
5. Push local repo to remote:  
 git push -u origin master  
