

D197 - Version Control Project- Using Git for Gitlab

Below is the full Task Overview for this project:

After task overview, my personal screenshots for project are provided for each section. I am limited to sharing so much as this was a school project via GitLab WGU environment.

INTRODUCTION

Version control, also referred to as revision control or source control (i.e., git), is an efficient way of managing changes to files over time. Managing files over time enables teams to collaborate freely because members can work on the same file at the same time and merge changes later. Version control and version control systems can be leveraged by anyone in an organization, from the development team to the software testing teams and even the product development/design team.

For this assessment, you will use the given scenario to create a GitLab repository and submit the link to it along with screenshots showing the work completed.

Before starting your work, review the "GitLab How-To" web link. Then, use the "GitLab" link to obtain the template. You will clone your GitLab repository to your computer to create a local repository. You will be modifying your local repository using Git Bash (Windows users) or using the Mac terminal (macOS users).

SCENARIO

You have been hired as a consultant at a company. The company has a collection of files for its website that need modification to complete the project deliverables. However, the company's contract requires that all documents be saved to a source repository, and there are other consultants working concurrently. You have been asked to make upgrades to the website.

REQUIREMENTS

Create a repository by doing the following:

Note: Screenshots should include the git response from the command prompt or the entire graph window.

Note: All operations should be performed on your local machine using Git Bash or another shell unless GitLab is specifically mentioned.

Note: You may commit and push at any time, even if a task is not complete.

Prepare Your Repository with Initial Data on GitLab

- A. Create your subgroup and project in GitLab using the provided web link and the "GitLab How-To" web link by doing the following:
1. Create a new branch named "Working" in GitLab.
 2. Include a screenshot of your current repository graph in GitLab.

Clone Your Repository on Your Local Machine

- B. Clone your remote repository from GitLab to your local machine using the command line interface. Include a screenshot of the command line action and be sure to have your repository name visible in the command prompt.

Make Changes, Commit, and Push

- C. Modify (using any text editor) **three** HTML files on the Working branch by doing the following:
1. Commit *each* change with a short, meaningful message that explains *all* changes you have made to the **three** HTML files. Include a screenshot for *each* git command for *each* change and be sure to have your repository name visible in the command prompt.
 2. Push the branch to GitLab. Include a screenshot of the command line action and be sure to have your repository name visible in the command prompt.

Create a New Branch and Make a Change

- D. Modify a file on a new branch in your local repository by doing the following:
- create a "Test" branch using the command line interface
 - add your student ID to the README.md file
 - push the changes to the remote repository in GitLab
 - include a screenshot of the command line action and be sure to have your repository name visible in the command prompt
1. Include a screenshot of the current repository graph in GitLab after pushing the changes.

Simulate a Merge Conflict

- E. Introduce a merge conflict with the "Test" branch by doing the following:
- add the git version number to the README.md file on the Working branch
 - merge the "Test" branch to the Working branch in your local repository

- include a screenshot that demonstrates the conflict of this merge command line action and be sure to have your repository name visible in the command prompt
1. Resolve the created conflict and push the changes to the Working branch in GitLab. Include a screenshot of the current repository graph in GitLab.

Tag a Branch

- F. Specify a version for your local repository by doing the following:
 - tag the Working branch as version V.1.0.0
 - push the tag to GitLab
 - include a screenshot of the command line action and be sure to have your repository name visible in the command prompt
1. Include a screenshot of the current repository graph in GitLab.

Add a Retrospective Directory to Repository

- G. Add retrospective information by doing the following:
 1. Create a directory on the Working branch named "retrospective".
 2. Create a log.txt that will contain the output of the git log command in the retrospective directory.

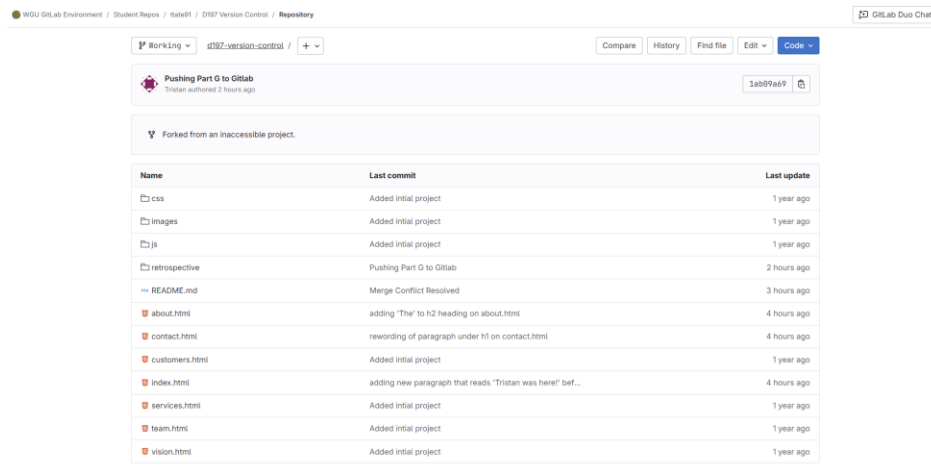
Note: Use "git log > log.txt" to redirect output to the file.

3. Create a "summary.txt" file in the retrospective directory and include the following:
 - summarize how the merge conflict in part E1 was resolved
 - describe the **three** changes that you made in part C1
4. Create **one** file (PDF or Word document) that contains *all* screenshots and comments from parts A–F and place the file in the retrospective directory.
5. Push *all* changes made in parts G1–G4 to GitLab.

Final Step

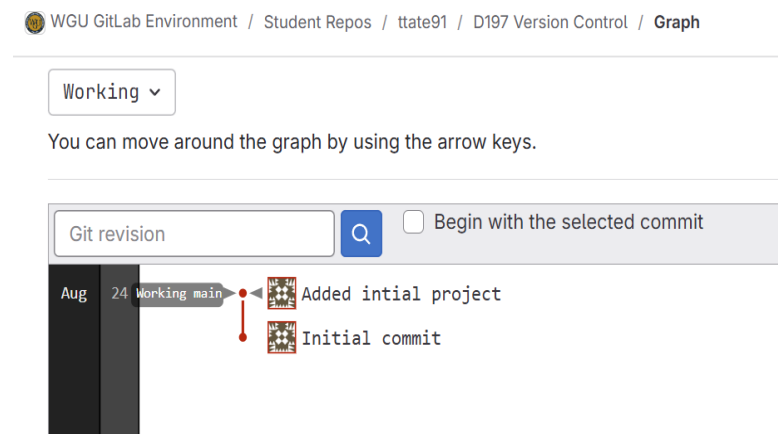
- H. Include the repository link to your GitLab in the "Comments to Evaluator" section when you submit this assessment.
- I. Demonstrate professional communication in the content and presentation of your submission.

MY WORK BELOW:



Step A Screenshot

Below is a screenshot of the current repository graph in Gitlab after completing the steps in A:



Step B Screenshot

Below is a screenshot of the command line action (be sure to have your repository name visible in the command prompt) after completing the steps in B:

```
MINGW64/c:/Users/tatej/Desktop/D197
tatej@tristanpc MINGW64 ~/Desktop/D197
$ git clone https://gitlab.com/wgu-gitlab-environment/student-repos/ttate91/d197-version-control.git
Cloning into 'd197-version-control'...
remote: Enumerating objects: 29, done.
remote: Counting objects: 100% (29/29), done.
remote: Compressing objects: 100% (20/20), done.
remote: Total 29 (delta 6), reused 29 (delta 6), pack-reused 0 (from 0)
Receiving objects: 100% (29/29), 98.37 KiB | 4.47 MiB/s, done.
Resolving deltas: 100% (6/6), done.

tatej@tristanpc MINGW64 ~/Desktop/D197
$ |
```

Step C Screenshot

Below are 3 screenshots for each git command for each change made to the HTML files after completing the steps in C:

```
PS C:\Users\tatej\Desktop\D197\d197-version-control> git add .
PS C:\Users\tatej\Desktop\D197\d197-version-control> git commit -m "adding 'The' to h2 heading on about.html"
[Working baae8fc] adding 'The' to h2 heading on about.html
1 file changed, 112 insertions(+), 63 deletions(-)
PS C:\Users\tatej\Desktop\D197\d197-version-control> git push
Enumerating objects: 5, done.
Counting objects: 100% (5/5), done.
Delta compression using up to 16 threads
Compressing objects: 100% (3/3), done.
Writing objects: 100% (3/3), 916 bytes | 916.00 KiB/s, done.
Total 3 (delta 2), reused 0 (delta 0), pack-reused 0 (from 0)
remote:
remote: To create a merge request for Working, visit:
remote:   https://gitlab.com/wgu-gitlab-environment/student-repos/ttate91/d197-version-control/-/merge_requests/new?merge_request%5Bsource_branch%5D=Working
remote:
To https://gitlab.com/wgu-gitlab-environment/student-repos/ttate91/d197-version-control.git
194e1b4..baae8fc Working -> Working
PS C:\Users\tatej\Desktop\D197\d197-version-control> |
```

```
PS C:\Users\tatej\Desktop\D197\d197-version-control> git add .
PS C:\Users\tatej\Desktop\D197\d197-version-control> git commit -m "rewording of paragraph under h1 on contact.html"
[Working 7dda916] rewording of paragraph under h1 on contact.html
1 file changed, 114 insertions(+), 58 deletions(-)
PS C:\Users\tatej\Desktop\D197\d197-version-control> git push
Enumerating objects: 5, done.
Counting objects: 100% (5/5), done.
Delta compression using up to 16 threads
Compressing objects: 100% (3/3), done.
Writing objects: 100% (3/3), 1.22 KiB | 1.22 MiB/s, done.
Total 3 (delta 1), reused 0 (delta 0), pack-reused 0 (from 0)
remote:
remote: To create a merge request for Working, visit:
remote:   https://gitlab.com/wgu-gitlab-environment/student-repos/ttate91/d197-version-control/-/merge_requests/new?merge_request%5Bsource_branch%5D=Working
remote:
To https://gitlab.com/wgu-gitlab-environment/student-repos/ttate91/d197-version-control.git
baae8fc..7dda916 Working -> Working
PS C:\Users\tatej\Desktop\D197\d197-version-control> |
```

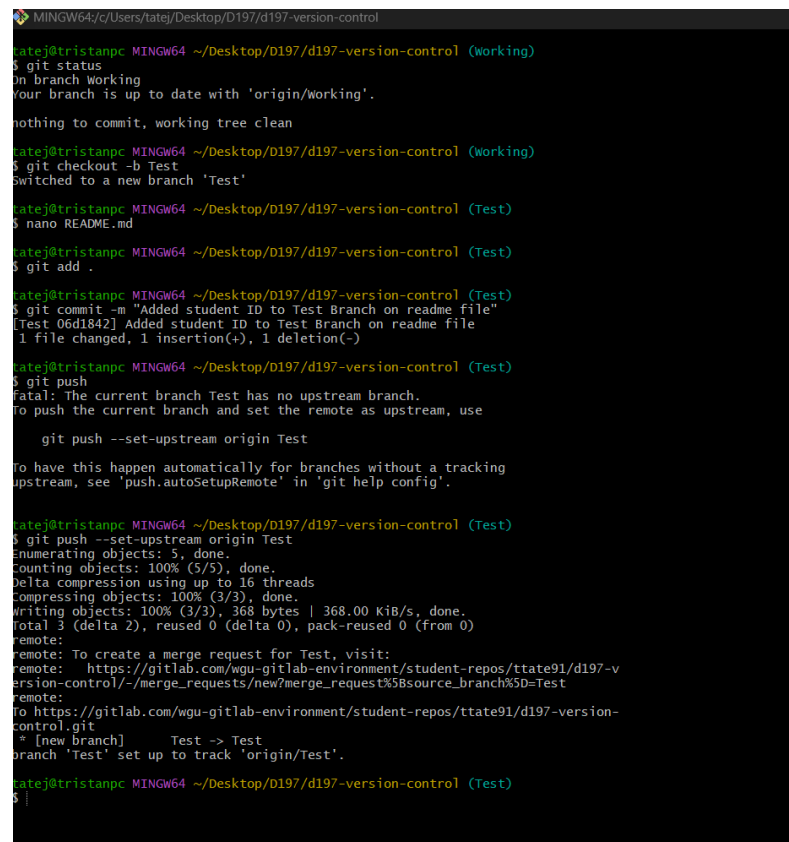
```

PS C:\Users\tatej\Desktop\D197\d197-version-control> git add .
PS C:\Users\tatej\Desktop\D197\d197-version-control> git commit -m "adding new paragraph that reads 'Tristan was here!' before footer on index.html"
[Working 6cb79d3] adding new paragraph that reads 'Tristan was here!' before footer on index.html
1 file changed, 154 insertions(+), 88 deletions(-)
PS C:\Users\tatej\Desktop\D197\d197-version-control> git push
Enumerating objects: 5, done.
Counting objects: 100% (5/5), done.
Delta compression using up to 16 threads
Compressing objects: 100% (3/3), done.
Writing objects: 100% (3/3), 1.16 KiB | 1.16 MiB/s, done.
Total 3 (delta 2), reused 0 (delta 0), pack-reused 0 (from 0)
remote:
remote: To create a merge request for Working, visit:
remote:   https://gitlab.com/wgu-gitlab-environment/student-repos/ttate91/d197-version-control/-/merge_requests/new?merge_request%5Bsource_branch%5D=Working
remote:
To https://gitlab.com/wgu-gitlab-environment/student-repos/ttate91/d197-version-control.git
   7dda916..6cb79d3  Working -> Working
PS C:\Users\tatej\Desktop\D197\d197-version-control> 

```

Step D Two Screenshots

Below is a screenshot of the command line action D:



```

MINGW64/c/Users/tatej/Desktop/D197/d197-version-control

tatej@tristanpc MINGW64 ~/Desktop/D197/d197-version-control (Working)
$ git status
On branch working
Your branch is up to date with 'origin/working'.

nothing to commit, working tree clean

tatej@tristanpc MINGW64 ~/Desktop/D197/d197-version-control (Working)
$ git checkout -b Test
Switched to a new branch 'Test'

tatej@tristanpc MINGW64 ~/Desktop/D197/d197-version-control (Test)
$ nano README.md

tatej@tristanpc MINGW64 ~/Desktop/D197/d197-version-control (Test)
$ git add .
$ git commit -m "Added student ID to Test Branch on readme file"
[Test 06d1842] Added student ID to Test Branch on readme file
1 file changed, 1 insertion(+), 1 deletion(-)

tatej@tristanpc MINGW64 ~/Desktop/D197/d197-version-control (Test)
$ git push
fatal: The current branch Test has no upstream branch.
To push the current branch and set the remote as upstream, use

    git push --set-upstream origin Test

To have this happen automatically for branches without a tracking
upstream, see 'push.autoSetupRemote' in 'git help config'.

tatej@tristanpc MINGW64 ~/Desktop/D197/d197-version-control (Test)
$ git push --set-upstream origin Test
Enumerating objects: 5, done.
Counting objects: 100% (5/5), done.
Delta compression using up to 16 threads
Compressing objects: 100% (3/3), done.
Writing objects: 100% (3/3), 368 bytes | 368.00 KiB/s, done.
Total 3 (delta 2), reused 0 (delta 0), pack-reused 0 (from 0)
remote:
remote: To create a merge request for Test, visit:
remote:   https://gitlab.com/wgu-gitlab-environment/student-repos/ttate91/d197-
version-control/-/merge_requests/new?merge_request%5Bsource_branch%5D=Test
remote:
To https://gitlab.com/wgu-gitlab-environment/student-repos/ttate91/d197-version-
control.git
   * [new branch]      Test -> Test
branch 'Test' set up to track 'origin/Test'.

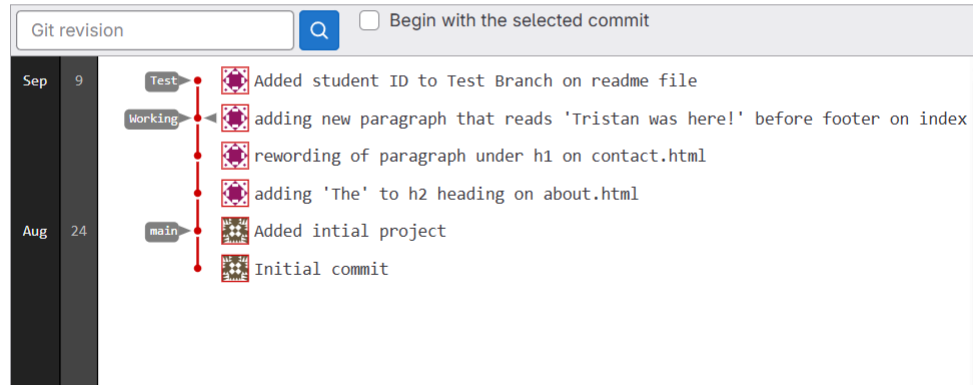
tatej@tristanpc MINGW64 ~/Desktop/D197/d197-version-control (Test)
$ 

```

Below is a screenshot of the current repository graph in Gitlab after completing the steps in D:

Working ▾

You can move around the graph by using the arrow keys.



Step E Screenshots

Below is a screenshot that demonstrates the conflict of a merge command line action:

```
MINGW64~/c/Users/tatej/Desktop/D197/d197-version-control

tatej@tristanpc MINGW64 ~/Desktop/D197/d197-version-control (Test)
$ git checkout Working
Switched to branch 'Working'
Your branch is up to date with 'origin/Working'.

tatej@tristanpc MINGW64 ~/Desktop/D197/d197-version-control (Working)
$ nano README.md

tatej@tristanpc MINGW64 ~/Desktop/D197/d197-version-control (Working)
$ git add .

tatej@tristanpc MINGW64 ~/Desktop/D197/d197-version-control (Working)
$ git commit -m "added version number to Working branch on readme file"
[Working f059483] added version number to Working branch on readme file
1 file changed, 1 insertion(+), 1 deletion(-)

tatej@tristanpc MINGW64 ~/Desktop/D197/d197-version-control (Working)
$ git push
Enumerating objects: 5, done.
Counting objects: 100% (5/5), done.
Delta compression using up to 16 threads
Compressing objects: 100% (3/3), done.
Writing objects: 100% (3/3), 370 bytes | 370.00 KiB/s, done.
Total 3 (delta 2), reused 0 (delta 0), pack-reused 0 (from 0)
remote:
remote: To create a merge request for Working, visit:
remote: https://gitlab.com/wgu-gitlab-environment/student-repos/ttate91/d197-v
remote: version-control/-/merge_requests/new?merge_request%5Bsource_branch%5D=Working
remote:
To https://gitlab.com/wgu-gitlab-environment/student-repos/ttate91/d197-version-
control.git
6cb79d3..f059483 Working -> Working

tatej@tristanpc MINGW64 ~/Desktop/D197/d197-version-control (Working)
$ git merge Test -m "Merging Test and Working Branches"
Auto-merging README.md
CONFLICT (content): Merge conflict in README.md
Automatic merge failed; fix conflicts and then commit the result.

tatej@tristanpc MINGW64 ~/Desktop/D197/d197-version-control (Working|MERGING)
$
```

Resolved:

```
tatej@tristanpc MINGW64 ~/Desktop/D197/d197-version-control (Working)
$ git merge Test -m "Merging Test and Working Branches"
Auto-merging README.md
CONFLICT (content): Merge conflict in README.md
Automatic merge failed; fix conflicts and then commit the result.

tatej@tristanpc MINGW64 ~/Desktop/D197/d197-version-control (Working|MERGING)
$ nano README.md

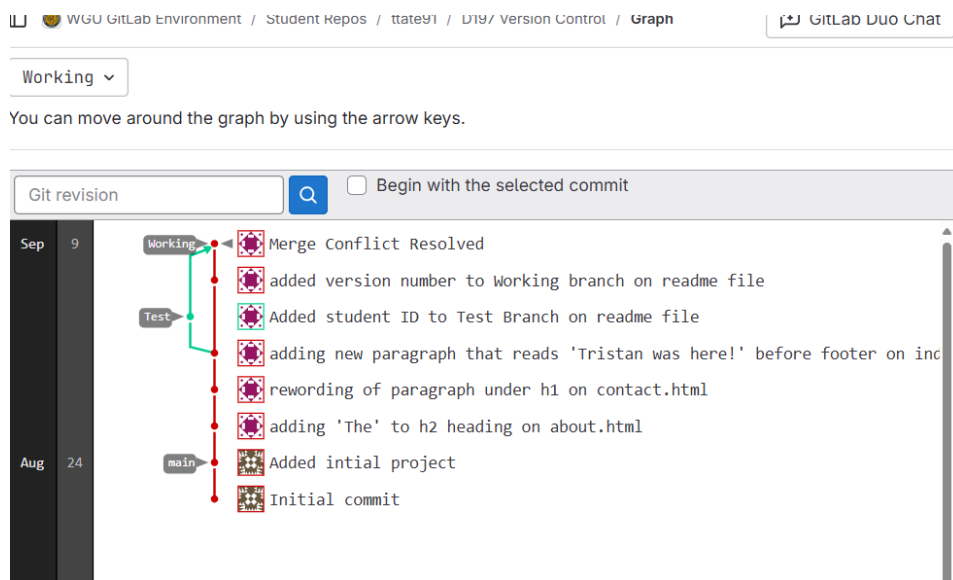
tatej@tristanpc MINGW64 ~/Desktop/D197/d197-version-control (Working|MERGING)
$ git add .

tatej@tristanpc MINGW64 ~/Desktop/D197/d197-version-control (Working|MERGING)
$ git commit -m "Merge Conflict Resolved"
[Working ffe4780] Merge Conflict Resolved

tatej@tristanpc MINGW64 ~/Desktop/D197/d197-version-control (Working)
$ git push
Enumerating objects: 7, done.
Counting objects: 100% (7/7), done.
Delta compression using up to 16 threads
Compressing objects: 100% (3/3), done.
Writing objects: 100% (3/3), 382 bytes | 382.00 KiB/s, done.
Total 3 (delta 2), reused 0 (delta 0), pack-reused 0 (from 0)
remote:
remote: To create a merge request for Working, visit:
remote:   https://gitlab.com/wgu-gitlab-environment/student-repos/ttate91/d197-v
remote:   ersion-control/-/merge_requests/new?merge_request%5Bsource_branch%5D=Working
remote:
To https://gitlab.com/wgu-gitlab-environment/student-repos/ttate91/d197-version-
control.git
 f059483..ffe4780 Working -> Working

tatej@tristanpc MINGW64 ~/Desktop/D197/d197-version-control (Working)
$
```

Below is a screenshot of the current repository graph in Gitlab after completing the steps in E:



Step F Two Screenshots

Below is a screenshot of the command line action:

```
MINGW64~/Users/tatej/Desktop/D197/d197-version-control
tatej@tristanpc MINGW64 ~/Desktop/D197/d197-version-control (working)
$ git tag V.1.0.0

tatej@tristanpc MINGW64 ~/Desktop/D197/d197-version-control (working)
$ git tag -l
V.1.0.0

tatej@tristanpc MINGW64 ~/Desktop/D197/d197-version-control (working)
$ git show V.1.0.0
commit ffe47804654eec920a9b59f6fe275a11defb7a5c (HEAD -> Working, tag: V.1.0.0, origin/Working)
Merge: f059483 06d1842
Author: Tristan <55209910+tristanjtate@users.noreply.github.com>
Date: Mon Sep 9 11:20:11 2024 -0700

    Merge Conflict Resolved

diff --cc README.md
index 5d64162,6c27562..49e5713
--- a/README.md
+++ b/README.md
@@@ -1,7 -1,7 +1,9 @@@
 # D197 Version Control
+Version number: 2.45.2
+ student ID: 011046231
+
+
 ## Getting started

 To make it easy for you to get started with GitLab, here's a list of recommended next steps.

tatej@tristanpc MINGW64 ~/Desktop/D197/d197-version-control (working)
$ git push origin --tags
total 0 (delta 0), reused 0 (delta 0), pack-reused 0 (from 0)
to https://gitlab.com/wgu-gitlab-environment/student-repos/ttate91/d197-version-control.git
* [new tag]          V.1.0.0 -> V.1.0.0

tatej@tristanpc MINGW64 ~/Desktop/D197/d197-version-control (working)
$ |
```

Below is a screenshot of the current repository graph in Gitlab after completing the steps in F:

Working ▾

can move around the graph by using the arrow keys.

it revision

☐ Begin with the selected commit