

**MAD 4360/6360**  
**CW 00 - Git and GitHub**  
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**Deadline: January 19, 2026 @ 11:59 PM**

**Deliverable:** Submit a .pdf file containing your answers and screenshots to iCollege by the deadline.

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### Objectives

- Gain hands-on experience with version control systems.
- Learn essential Git commands.
- Understand GitHub workflows.

**This assignment will take some time to complete, so please plan accordingly.**

1. Complete the following version control and Git training in LinkedIn Learning and obtain a certificate with your name on it (2h 55min):
2. <https://technology.gsu.edu/technology-services/technology-professional-training/linkedin-learning/> (go here first then the link below)
3. <https://www.linkedin.com/learning/git-essential-training-the-basics>

**LinkedIn Learning is available for free to all GSU students and employees. Simply sign in using your GSU credentials, and you can optionally sync your account with Gmail for easier access.**

Please ensure you follow the training along, by installing git on your computer and then performing the commands on your computer.

### Task Breakdown

**Obtain the certificate for completing the training and include it as a screenshot in the submission document (40 points).**

4. Access “Learn Git Branching” <https://learngitbranching.js.org/> and complete at least the following levels:
  - a) Main – Introduction Sequence (10 points)
  - b) Remotes – Push & Pull -- Git Remotes! (10 points)

**Take screenshots** of your browser with the two completed trainings and include the time on your computer in your screenshots. Then copy-paste the screenshots in your assignment file/word doc/pdf.

5. Access “Visualizing Git” <http://git-school.github.io/visualizing-git/>, and execute the following commands in order to see how the repository changes:

- |  |                                      |
|--|--------------------------------------|
| ▪ <code>git log</code>                       | ▪ <code>git commit</code>            |
| ▪ <code>git commit</code>                    | ▪ <code>git log</code>               |
| ▪ <code>git commit</code>                    | ▪ <code>git branch newFeature</code> |
| ▪ <code>git commit -m="third"</code>         | ▪ <code>git merge master</code>      |
| ▪ <code>git branch dev</code>                | ▪ <code>git commit</code>            |
| ▪ <code>git commit -m="commit master"</code> | ▪ <code>git checkout master</code>   |
| ▪ <code>git checkout dev</code>              | ▪ <code>git commit</code>            |
| ▪ <code>git commit</code>                    | ▪ <code>git log</code>               |
| ▪ <code>git commit</code>                    |                                      |

**Take a screenshot** of your screen after completing the training, showing the entire page, with the commands you executed and the visualizations, and include the time on your computer in your screenshots. Then copy-paste the screenshots in your assignment file. (10 points)

**6. Answer the following questions:**

a) What is a **.gitignore** file, and why is it important in a Git project? Provide examples of files or directories you might include in it. (3 points)

b) Which Git command allows you to compare the differences between two commits? Explain how you would use it with commit hashes. (3 points)

c) What is the HEAD pointer in Git? Describe its role in navigating commit history and how it changes during operations like checkout, commit, or reset. (3 points)

d) Which Git command can you use to discard changes made to a file in your working directory? Explain what happens to the file after running the command. (3 points)

e) What Git command can you use to revert a specific commit? How does this differ from `git reset`? (3 points)

7. Create a GitHub account at <https://github.com> (if you don't have one already) and copy paste your GitHub username in your assignment as an answer to this question. (3 points)

**Additional resources:** You can look up more tutorials at <http://try.github.io>