General Instructions:

- This activity is expected to take approximately 1.5 hours. Please ensure careful adherence to the provided instructions.

Objective:

- This exercise focuses on using Git in a local environment without remote repositories. You'll practice setting up a local Git repository, working with branches, managing commits, and resolving conflicts locally.

Problem Statement:

- You are working on a project locally, and need to use Git for version control. Your task is to initialize a Git repository, implement features using branches, manage commits, and handle conflicts that may arise when merging different branches.

1. Open Microsoft Word or any word processing software that supports document creation.
2. Start a new document.
3. Copy and paste the tasks for Machine Problem #1 into the document. Ensure proper formatting and readability.
4. Insert your source code into the document. You can either copy and paste it directly or take a screenshot of the code and insert the image into the document.
5. Capture screenshots of the output of your code execution. Make sure the screenshots are clear and readable.
6. Insert the screenshots into the document. You can either directly insert the images or embed them as links, depending on your preference and the document's requirements.
7. Arrange the content in a logical and organized manner. You may want to use headings, subheadings, and bullet points to make the document easy to follow.
8. Review the document for any errors or formatting issues. Make necessary adjustments to ensure clarity and correctness.
9. Save the document as a PDF file. Most word processing software offers an option to save or export documents as PDFs. Choose this option and follow the prompts to save your document in PDF format.
10. Once saved, review the PDF file to ensure that all content, including instructions, source code, and screenshots, is accurately captured and presented.
11. If everything looks good, your Word document containing instructions, source code, and screenshots, saved as a PDF file, is ready for submission or sharing.
    - Please follow the filename format (**minus 10** for the wrong filename)

- *MP1<Lastname>*.pdf
    - **Example**: *MP1Mansueto*.pdf

Scenario:

You're working on a personal project named "**my_local_project**" and want to experiment with new features without affecting the main codebase.

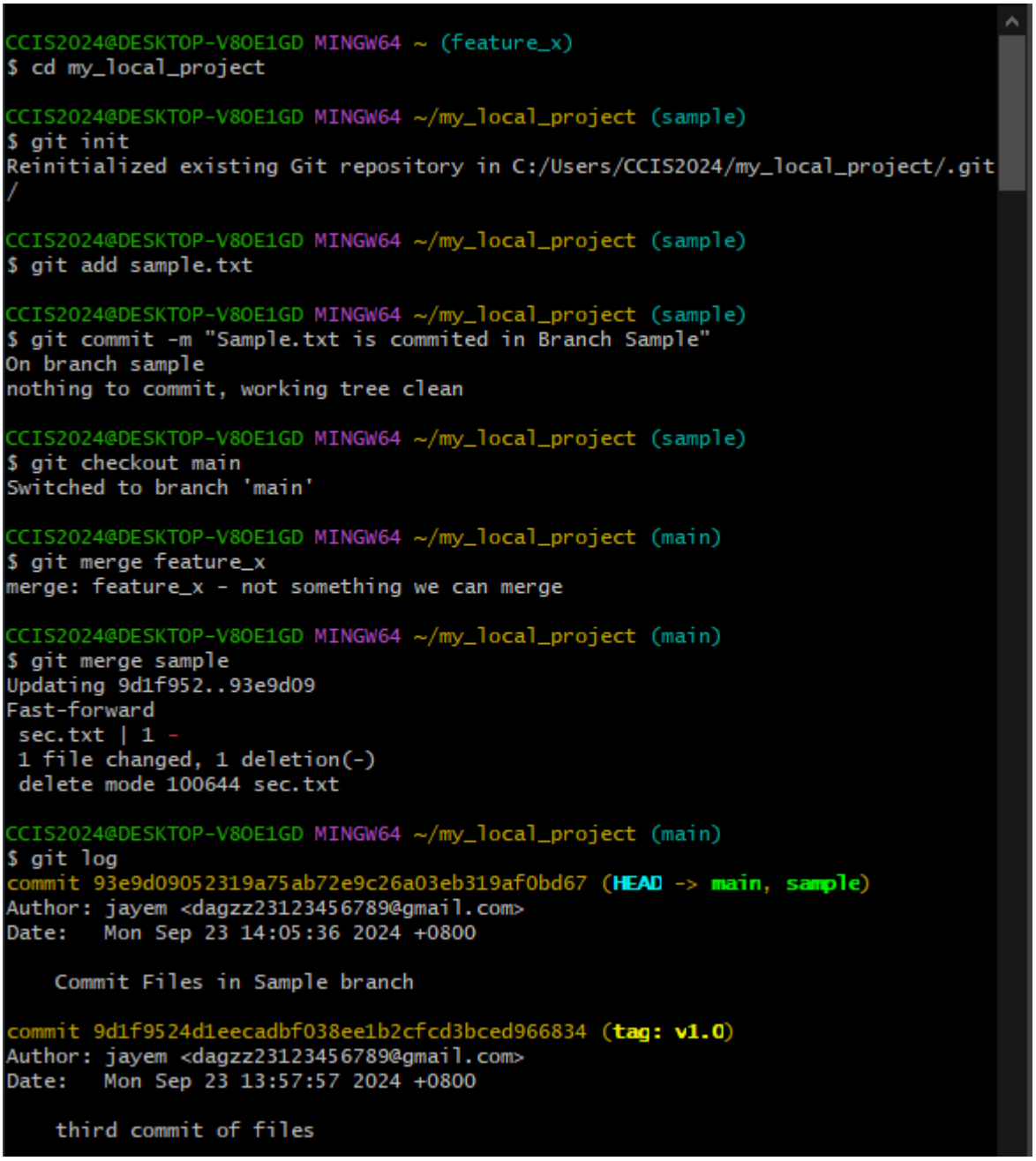
Note:

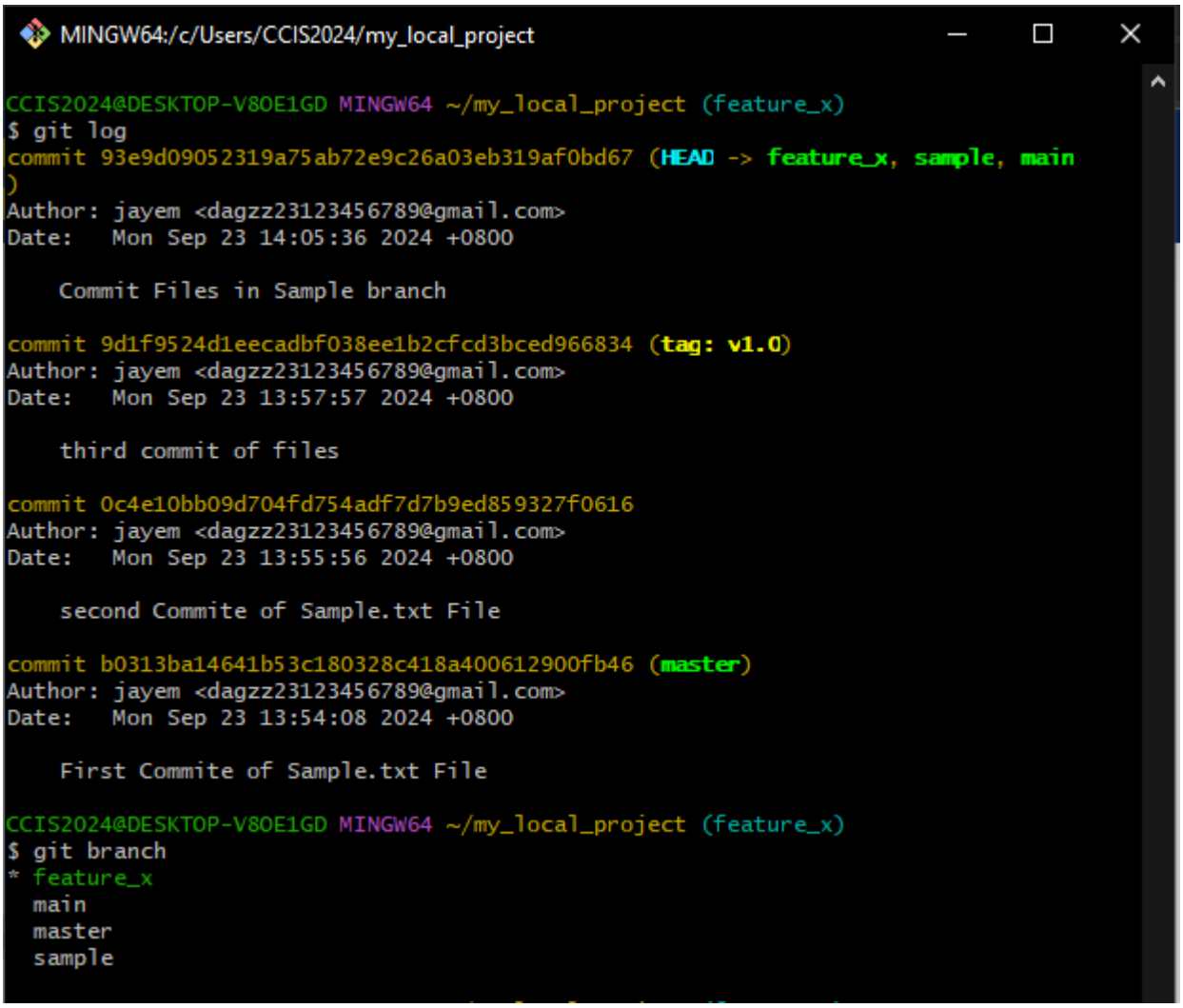
- Ensure Git is installed on your machine.
- Set up your Git username and email (if not already configured)
- Create a directory called my_local_project, navigate into it, and initialize it as a Git repository
- Multiple commits reflecting changes in different branches.
- Evidence of conflict resolution during branch merging (optional).
- A Git tag-marking version v1.0 (optional).

Tasks:

1. **Create a new branch:**
    - Create a new branch named "**feature_x**" to isolate your experimental changes.
2. **Stage changes:**
    - Make modifications to your project files.
    - Stage the changes using the git add command.
3. **Commit changes:**
    - Commit the staged changes to your local repository using the git commit command. Provide a clear and concise commit message.
4. **Switch back to the main branch:**
    - Use the git checkout command to switch back to the main branch.
5. **Merge changes from the feature branch:**
    - Use the git merge command to merge the changes from the "feature_x" branch into the main branch. Resolve any merge conflicts that may arise.
6. **Viewing the Commit History:**
    - Use Git commands to view the commit history and ensure that all commits are in place.

7. **Tagging Versions (Optional):**
    - After completing the merge, use the git tag command to create a tag named v1.0 to mark the first version of your project.




MINGW64:/c/Users/CCIS2024/my_local_project
CCIS2024@DESKTOP-V8OE1GD MINGW64 ~/my_local_project (feature_x)
$ git log
commit 93e9d09052319a75ab72e9c26a03eb319af0bd67 (HEAD -> feature_x, sample, main
)
Author: jayem <dagzz23123456789@gmail.com>
Date: Mon Sep 23 14:05:36 2024 +0800
Commit Files in Sample branch
commit 9d1f9524d1eecadbf038ee1b2cfcd3bced966834 (tag: v1.0)
Author: jayem <dagzz23123456789@gmail.com>
Date: Mon Sep 23 13:57:57 2024 +0800
third commit of files
commit 0c4e10bb09d704fd754adf7d7b9ed859327f0616
Author: jayem <dagzz23123456789@gmail.com>
Date: Mon Sep 23 13:55:56 2024 +0800
second Commite of Sample.txt File
commit b0313ba14641b53c180328c418a400612900fb46 (master)
Author: jayem <dagzz23123456789@gmail.com>
Date: Mon Sep 23 13:54:08 2024 +0800
First Commite of Sample.txt File
CCIS2024@DESKTOP-V8OE1GD MINGW64 ~/my_local_project (feature_x)
$ git branch
* feature_x
main
master
sample