



NAME: _____

1. (4 pts.) What are the “four essential freedoms” defined by the Free Software Foundation?

(a) :

(b) :

(c) :

(d) :

2. (4 pts.) Kevin Fleming, in his presentation *What is Open Source, and Why Should You Care?*, suggests some non-code, open source projects to which you can contribute. Name two of them.

(a) :

(b) :



3. (5 pts.) You have created a directory named `exercise1` that you would like to put under the control of `git`. The directory listing, as displayed by `ls -a` is

```
[exercise1]$ ls -a
problem4.md  README.md  problem3.md  problem1.md  data
solutions   LICENSE    problem2.md  temp
```

Write a sequence of executable instructions that will create a `git` repository in this `exercise1` directory and will then create the first commit containing all files and subdirectories, their content included, except for the subdirectory `temp`. The two subdirectories are `data` and `solutions`.

4. (8 pts.) Assume that there is a remote repository containing several files, including a file named `members`. Vanessa and Sammi both have administrative access to that repository. They both clone the repository and work independently in their local copies of it. Initially their local repositories are identical.
- (a) Sammi creates a new file named `Sammi.md`, adds it to his local repository, and immediately pushes it to the remote. Vanessa subsequently creates a new file named `Vanessa.md`, adds it to her local repository, and pushes it. Will there be a merge conflict when Vanessa attempts to push her file? Explain your answer. If there is a merge conflict, describe how it should be resolved.
- (b) Vanessa and Sammi both independently edit the file named `members` by adding their names to the list of existing names in it. Will there be a merge conflict when each of them attempts to make their commit and push the changes to the remote? Explain your answer. If there is a merge conflict, describe how it should be resolved.



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5. (4 pts.) List four tools that a good open source project should have for organizing discussion about the project (as described in the guide, “*How to Contribute to Open Source*”).