Lab: Practicing Version Control

1. How can version control help developers to collaborate on code projects?

When working on a project, the Version Control System helps all members of the team to be on the same page. This ensures that the latest version of a file is being worked on simultaneously by all members of your team for the same project.By providing a shared history of the project, version control allows developers to track code changes over the time and ensures smooth collaboration. It allows multiple developers to work on the same code projects at the same time, to manage conflicts, and to easily merge changes. Version control systems like Git provide a centralized repository, making it easier to coordinate and maintain a consistent and up-to-date codebase.

1. How does branching enable developers to work on features in parallel?  
     
   Branching allows developers to create separate workflow of development, known as branches. A particular feature or task can be represented by each branch. These branches can be used by developers to work on their task specialization, making changes that do not affect the original codebase. The branch may be merged back to the primary branch once this feature has been completed and checked. The use of this parallel development process enables teams to work on several features at the same time, thereby resulting in a smoother, faster and successful collaboration between the team working on a project.
2. How do you undo a commit (i.e., explain how to use git revert)?  
   The git revert command is used to undo the previous commit.  
   This command undoes a change made in the previous or specific commit.  
   Thus it not only helps to restore the changes to the project but also preserves the commit history for future reference. To use git revert, we need to identify the commit hash  
     
   for e.g. “c06bd5db5f9210306e956410ba96620cb3083125” is the hash for the commit “Added mint to lime sda recipe” Here the comment description is not correct.   
   A screenshot of a computer program

   Description automatically generated  
   So I can undo this commit by using the command git revert< c06bd5db5f9210306e956410ba96620cb3083125>
3. To undo a commit in Git, you can use the **git revert** command. This command creates a new commit that undoes the changes made in a specific commit while preserving the commit history. To use **git revert**, first, identify the commit hash you want to revert to using **git log**. Then, run **git revert <commit-hash>**. The command opens a text editor where you can add a revert commit message. Finally, save and close the text editor, and Git will create a new commit that effectively undoes the changes introduced by the specified commit.