Post-Lab Questions and Answers:

1. Describe the two main methods for obtaining a connection to the Raspberry Pi.

The two main methods for connecting to the Raspberry Pi are through Wi-Fi (Wireless Network) or an ethernet cable. Connecting to a wireless network can be done by configuring the Pi by editing the wpa\_supplicant.conf file or using a preconfigured network. If the Wifi configuration fails connecting to the Pi can be done by directly connecting it to a laptop using an Ethernet cable.

2. What is Git, and why might it be useful for managing software in a project?

Git is a version control system that tracks changes to files and allows multiple users to collaborate on a project. It is useful for managing software because it provides a history of changes, the ability to revert to previous versions, facilitates collaboration by allowing team members to work on the same codebase without overwriting each other's work, and it supports branching and merging, enabling parallel development and experimentation.

3. Describe the commands for adding, committing, and pushing changes in a local repository to GitHub. If the push is successful, you would see updates on your remote repository. If your push command is rejected, it is likely because your local repository is behind the remote repository or when your teammate changes the code remotely without updating on your local files, what is the command you need to update your outdated local repository?

The commands for managing changes in a Git repository include git add . (for adding changes), git commit -m "Your commit message" (for committing changes), and git push (for pushing changes). git add . adds all modified and new files to the staging area. git commit -m "Your commit message" saves the changes in the local repository with a descriptive message. git push uploads the committed changes to the remote repository. If the push is rejected because the local repository is behind the remote repository the following command can be used to update the local repository: git pull. This command fetches and merges the changes from the remote repository into the local branch.

