# Quiz

**Score: 11/11**

## 1. What is Git?

✓

A version control system that only allows a single developer to work on a project at a time.

A distributed version control system for tracking changes in source code during software development.

A tool for building graphical user interfaces.

An integrated development environment for writing code.

### Explanation

Git is a distributed version control system designed to handle everything from small to very large projects with speed and efficiency. It allows multiple developers to work on the same codebase independently and merge their changes.

## 2. What is the command to stage all changes in Git?

✓

git stage .

git commit -a

git add .

### Explanation

The command 'git add .' stages all changes in the working directory for the next commit, including new files, modifications, and deletions.

git push all

### 3. What does the 'git clone' command do?

Create a new branch in the local repository.

Push all changes to the remote repository.

Create a copy of a remote repository to the local machine.

Delete the remote repository.

**Explanation**

'git clone' is used to create a copy of a remote repository to your local machine, allowing you to work on the code or files within that repository.

### 4. What does the .gitignore file do in a Git repository?

Tracks all changes in the repository.

Specifies which files Git should ignore.

Forces a merge between branches.

Deletes the commit history.

**Explanation**

The .gitignore file specifies intentionally untracked files that Git should ignore. This includes build outputs, temporary files, and any other files that should not be committed.

### 5. What is the purpose of 'git pull'?

Create a new branch in the local repository.

Fetch and integrate the latest changes from the remote repository.

Merge the current branch into the remote repository.

Delete the remote repository.

## Explanation

'git pull' is used to fetch the latest changes from the remote repository and integrate them into the current branch.

## 6. What is a 'merge conflict' in Git?

A conflict that occurs when fetching changes from the remote repository.

A conflict that occurs when creating a new branch.

An issue that arises when Git cannot automatically resolve differences between conflicting changes made in separate branches.

A conflict that occurs during a commit operation.

## Explanation

A merge conflict occurs when Git is unable to automatically resolve differences between two sets of changes in separate branches. This can happen when the same part of a file has been modified differently in the conflicting branches.

## 7. What is the command to create a new branch in Git?

git create

## Explanation

git checkout -b

git branch

git new branch

The command 'git branch <branch_name>' is used to create a new branch in Git, allowing development to proceed on a new feature or bug fix without affecting the main branch.

## 8. What does the command 'git push -u origin main' do?

Push all changes to the remote repository.

Push the local main branch to the remote repository and set the remote main branch as the default upstream reference.

Push the current branch to a new branch on the remote repository.

Push changes and create a new main branch on the remote repository.

### Explanation

The command 'git push -u origin main' pushes the local main branch to the remote repository, setting the remote main branch as the default upstream reference for the local main branch.

## 9. What is the purpose of a Git rebase?

Merge changes from one branch into another, creating a linear project history.

### Explanation

Git rebase is used to integrate the changes from one branch into another by moving the starting point of the branch to a new

commit. This can create a cleaner, more linear project history compared to merging.

Create a copy of a branch to work on in isolation without affecting the original branch.

Reset the commit history of a branch to a previous state.

Clean up untracked files in the working directory.

### 10. What is a Git workflow?

A defined process for managing and implementing project development and deployment with Git.

A graphical user interface for Git operations.

A specific command sequence to reset the repository to a previous state.

A tool for creating project backups in Git.

**Explanation**

A Git workflow is a defined process for managing and implementing the development and deployment of the project with Git. It outlines the rules, responsibilities, and steps involved in software development using Git.

### 11. What is the purpose of the 'git log' command in Git?

Display the commit history of the repository.

Roll back to a previous commit in the repository.

**Explanation**

The 'git log' command is used to display the commit history of the repository, including information about the author, date, and commit message for each commit.

Show the changes made in the working directory.

List all the available branches in the repository.