How can you skip the staging area?

```
git commit -a -m "comment"
```
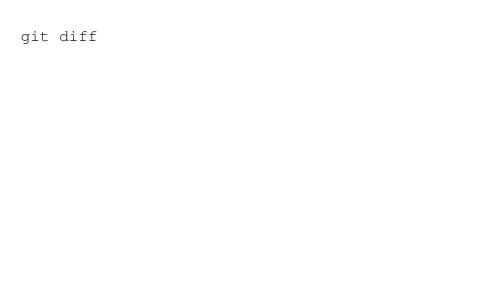
How can you view your changes as you commit?

```
git commit -v
```

How can you view staged changes from your last commit?

```
git diff --staged
```

How can you view unstaged changes from your last commit?

```
git diff
```

How can you tell Git to ignore certain files?

List them in `.gitignore`. The syntax accepts glob patterns, leading & trailing slashes, and !.

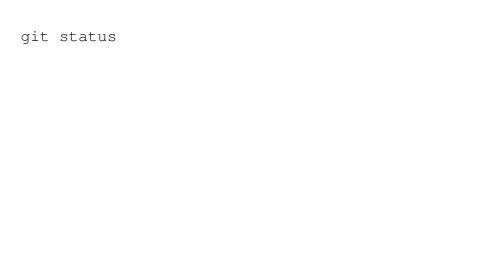"Changed but not updated" files are in which stage?

Modified

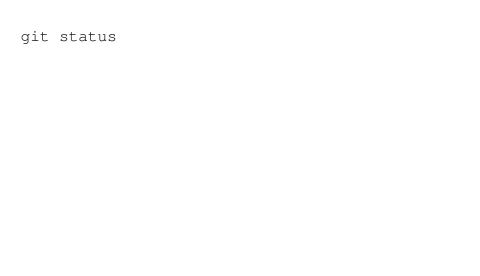"Changes to be committed" are in which Git stage?

Staged

How do you begin tracking a new file?
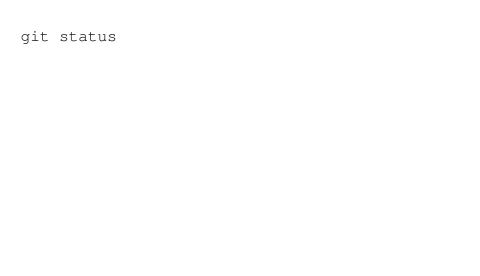
```
git add [filename ...]
```

How can you find which branch you're in?

```
git status
```

How can you check for untracked files?

```
git status
```

How do you check if any of your tracked files have been modified?

```
git status
```

How do you get a copy of an existing Git repository?

```
git clone [url]
```

How do you start version-controlling files?

```
git add [filename ...]
```

How do you initialize a repository in an existing directory?

```
git init
```

What is a bare repository?

A repository with no working directory.

Which protocol does Git assume if you don't specify?

ssh.

```
git clone ssh://user@server:project.git
```
is the same as
```
git clone user@server:project.git
```

How do you create a bare repository?

Clone a normal one, then:
```
git clone --bare my_project my_project.git
```

Using ssh, what controls read/write access to the repo?

The OS's read/write permissions on the `.git` bare repo directory.

How can you guarantee others will have permission to push to your bare repository.

Go into the `.git` repo on the server and run:

```
git init --shared
```

How can you give devs access to a repo with ssh if they don't have accounts on the machine?

Create a single "git" user and add all the devs' keys to
`~/.ssh/authorized_keys`.

Give a script to set up a Git repo on a server.

```
cd /opt/git
mkdir project.git
cd project.git
git --bare init
```

Give a script to move code to a new repo on a server.

```
#on John's computer
cd myproject
git init
git add .
git commit -m 'initial commit'
git remote add origin git@gitserver:/opt/git/myproject.git
git push origin master
```

How can you restrict the git user to Git use only?

Change its shell to `git-shell` in `etc/passwd`.

```
git:x:1000:1000::/home/git:/bin/sh
                            :/usr/bin/git-shell
```

How can you provide read-only public access
to your otherwise ssh-based repo?

Create a webserver with the repo as webroot. Then add a post-update hook from the samples. People can then clone over http.

How can you provide a web interface to your repo?

Use GitWeb, a CGI script that comes with Git.

Name a tool for managing large numbers of entries in `authorized_keys`.

Gitosis.

Name a tool for providing access controls over branches, tags, etc.?

Gitolite.

How can you avoid committing whitespace?

```
git diff --check
```

How do you normalize line endings?

On Windows clients:

```
git config --global core.autocrlf true
```

Converts LF to CRLF at checkout.

On Unix clients & on server:

```
git config --global core.autocrlf input
```

Converts CRLF to LF on commit.

How do you insist Git check SHA-1
consistency on every push?

On server:

```
git config --system receive.fsckObjects true
```