Pushing and Pulling

Pushing to a repo

My Git playground repo URL

```
git@github.com:matthewmccullough/hellogitworld.git
```

Push the current branch

```
git push
```

Push to a specific remote and only a specific branch

```
git push origin master
git push <remote name> <branch name>
```

Push a branch to a different name on the remote

```
git push <remote name> <local branch name:remote branch name>
git push origin master:newbranch
```

Delete a remote branch

```
git push origin somebranch:
```

Push all branches, all tags

```
git push --all
```

Push even if refs disagree on parents

```
git push --force
```

Retrieving code

Pull in the blobs into our repo, but don't merge them

```
git fetch <remote name>
```

What changes did we get?

```
git log master..origin
```

Merge them in

```
git merge <remote name/remote branch>
```

Automatic fetch and merge

```
git pull
git pull <remote name>
git pull <remote name> <branch name>
```

Examine the project's `.git/config` file for automatic mappings. Projects locally created won't be tracking the remote repository so you would need to `git push origin master` or `git push origin master` verbosely each time. You'd see an error like this:

```
git pull
You asked me to pull without telling me which branch you
want to merge with, and 'branch.master.merge' in
your configuration file does not tell me, either. Please
specify which branch you want to use on the command line and
try again (e.g. 'git pull <repository> <refspec>').
See git-pull(1) for details.

If you often merge with the same branch, you may want to
use something like the following in your configuration file:

    [branch "master"]
    remote = <nickname>
    merge = <remote-ref>

    [remote "<nickname>"]
    url = <url>
    fetch = <refspec>

See git-config(1) for details.
```

or even if you specify a remote, but no branch:

```
git pull origin
From http://gitfarm.appspot.com/git/students10
 * [new branch]      master     -> origin/master
You asked to pull from the remote 'origin', but did not specify
a branch. Because this is not the default configured remote
for your current branch, you must specify a branch on the command line.
```

To have the branch track a remote without re-checking it out, just edit the
.git/config file. The branch will look like this:

```
[core]
    repositoryformatversion = 0
    filemode = true
    bare = false
    logallrefupdates = true
    ignorecase = true
[remote "origin"]
    url = http://students10:password@gitfarm.appspot.com/git/students10.git
    fetch = +refs/heads/*:refs/remotes/origin/*
```

and needs to be changed to look like this:

```
[core]
    repositoryformatversion = 0
    filemode = true
    bare = false
    logallrefupdates = true
    ignorecase = true
[remote "origin"]
    url = http://students10:password@gitfarm.appspot.com/git/students10.git
    fetch = +refs/heads/*:refs/remotes/origin/*
[branch "master"]
    remote = origin
    merge = refs/heads/master
```

or setup with the git config command like this:

```
git config branch.master.remote origin
git config branch.master.merge refs/heads/master
```