QB Student Repo Updating

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This is a brief tutorial outlining how to push content to student GitHub repositories for Quantitative Biodiversity. In general, each of these scripts follows this structure:

`sh {name of script} {optional arguments for each script} {participant list}`

Create List of Student Repos

First, update the text file `participant_repos.txt` that includes the name of each student repository. For example, `participant_repos.txt` looks like this:

```
QB2017_Beidler
QB2017_Benavidez
QB2017_Bennett
QB2017_Gibson
QB2017_Kuo
QB2017_Moger-Reischer
```

Clone Student Repos

First, you'll need to clone student repos to your local computer so you can push content to them. Navigate to the location where you'd like to set up the student repos. Make sure you know the path to the shell scripts so you can access them.

Clone the repos with the `GitCloneQB.sh` script:

`sh GitCloneQB.sh participant_repos.txt`

If this doesn't work, you may need to make sure your ssh key is set up for the repos you're trying to access, otherwise you'll need to change the following line in `GitCloneQB.sh` to work with html instead of ssh:

`git clone git@github.com:QBstudents/$EachLine.git`

Update Student Repos

Next, we'll push content to the each repo. You'll need to know the paths to the files you'd like to push.

Make Recipient Directories

First, make the recipient directory (e.g., `Week7-PhyloCom`) that you'll be pushing to with the `GitMkdirQB.sh` script. You'll need to supply the relative path (starting from each student repository, e.g., `QB2017_Test`). So, to create Phylocom, we'll run this line of code:

`sh GitMkdirQB.sh Week7-PhyloCom participant_repos.txt`

To create the data folder within the Week7-PhyloCom directory, we'll run this:

`sh GitMkdirQB.sh Week7-Phylocom/data participant_repos.txt`

Copy Files to New Directory

To copy files, we'll use the `GitCopyQB.sh` script. This take the following arguments: {path to file to copy} {path to recipient directory} {student repo list}

For example, to copy the Phylocom assignment (replace the path to file with the path on your machine):

```
sh GitCopyQB.sh ../QB-2017/Week7-PhyloCom/PhyloCom_assignment.Rmd Week7-PhyloCom/ participant_repos.txt
```

Add and Commit files

To add and commit files you just added use the `GitAddCommitQB.sh` script. The first argument can be the path to a specific file (e.g., `Week6-PhyloTraits/PhyloTraits_handout.Rmd`) or a flag that git recognizes, e.g., `-A` for all files. The next argument is a git commit message (e.g., what you would normally type after `-m` in a git commit). Don't type `-m` though. Last, you'll need to supply the list of repos.

Here's an example of how to add week 7 materials:

```
sh GitAddCommitQB.sh -A 'Adding Week7 Materials' participant_repos.txt
```

Push to Student Repos on GitHub

Pushing to student repos is easy, just run `GitPushQB.sh` and supply the list of repos:

```
sh GitPushQB.sh participant_repos.txt
```

Other Scripts

There are a few other scripts you may need to use. I'll describe how to use them here.

Remove Files

If you need to remove a file from each student's repo, use the `GitRmQB.sh` script in a similar way:

```
sh GitRmQB.sh path/to/file participant_repos.txt
```

Moving Files

If you need to move (or rename) a file in each repo, use the `GitMvQB.sh` script:

```
sh GitMvQB.sh path/of/file/to/move path/of/place/to/move/it participant_repos.txt
```

Updating .gitignore Files

To update students' gitignore files (e.g., to ignore .DS_Store files):

```
sh GitUpdateGitIgnore.sh '.DS_Store' participant_repos.txt
```