Assignment 3 Part 1 Instructions

Assignment 3 Part 1: System Calls

Github Classroom Link:

Please find the link to create your repository for this assignment in the "Github Classroom Links" section under course resources

Github Classroom Start Instructions

For this assignment we will start with the git repo we created for the previous assignment, but change the origin to point to the github repo where we will submit the next assignment. We will also pull in some base code used for assignment 3.

Use these commands in git bash to prepare your assignment repository:

```
git remote remove origin
```

- This removes the origin repository you used to submit the previous assignment

```
git remote add origin <url>
```

- Substitute <url> for the repository created with the github assignment link for the current assignment.
- This is where you will submit your current assignment. It will be configured as origin so git push origin master will push to this repository.

```
git fetch assignments-base
```

- Fetch the latest content from the starter code remote added during assignment 2
- This step assumes you've already created the remote using `git remote add assignments-base git@github.com:cu-ecen-aeld/aesd-assignments.git` in assignment 1 or 2. If you started from a new repo you'll need to re-run the git remote add step before attempting to fetch.

```
git merge assignments-base/assignment3-part-1
```

- Merge the assignment 3 starter code from the assignment3 branch of the aesd-assignments repository into your master branch

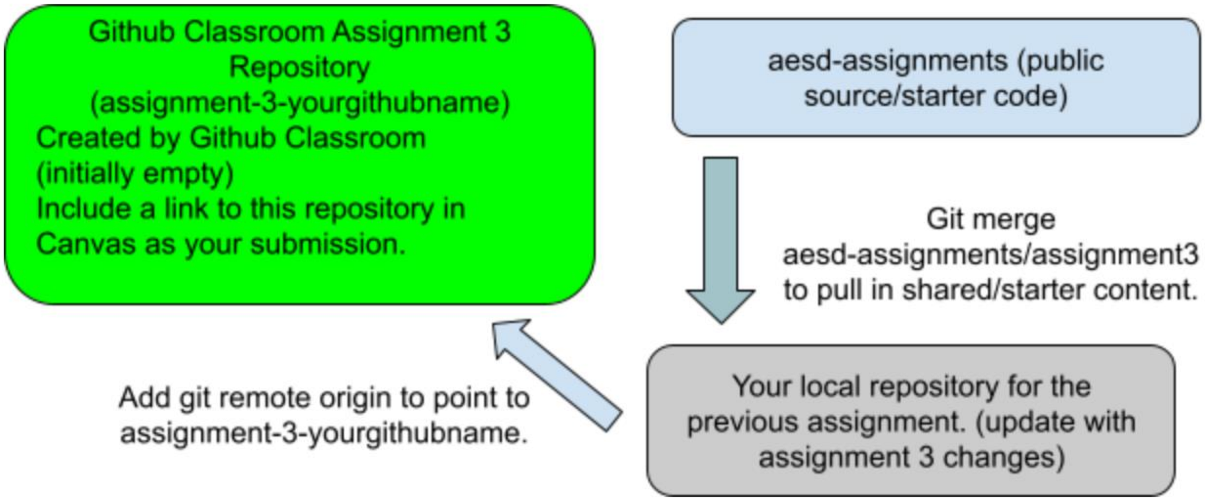
```
git submodule update --init --recursive
```

- Update automated testing source

```
git push origin master
```

- This pushes your master branch, including previous assignment source and content merged from <base> to your working repository for this assignment.

Repository Setup:


Github Classroom Assignment 3 Repository (assignment-3-yourgithubname)
Created by Github Classroom (initially empty)
Include a link to this repository in Canvas as your submission.
aesd-assignments (public source/starter code)
Git merge aesd-assignments/assignment3 to pull in shared/starter content.
Add git remote origin to point to assignment-3-yourgithubname.
Your local repository for the previous assignment. (update with assignment 3 changes)

Suggested Videos:

1. Module 2 Content

Setup Github Actions

- See https://github.com/cu-ecen-aeld/aesd-assignments/wiki/Setting-up-Github-Actions

Implementation:

1. Modify your finder-app/finder-test.sh script to remove the make step.
    a. You will add a cross-compile make step for this utilty in a different script as a part of Assignment 3 part 2.
2. Make modifications in the examples/systemcalls/systemcalls.c file to implement the TODO there related to video content and system() and exec() functions. See provided test code in https://github.com/cu-ecen-aeld/assignment-autotest/blob/master/test/assignment3/Test_systemcalls.c which will verify your implementation. Run `./unit-test.sh` to test your implementation using unity unit tests.
3. Tag your repository `assignment-3-part-1` using https://github.com/cu-ecen-aeld/aesd-assignments/wiki/Tagging-a-Release

Validation:

Your `unit-test.sh` script should pass against your systemcalls implementation. Note that your github actions will fail due to `full-test.sh`, we will add support for this in part 2 of the assignment.

Troubleshooting:

You may notice **`printf()`** output duplicated after your **`fork()`** call. Use **`fflush(stdout)`** before the **`fork()`** call to avoid duplicate prints. See https://stackoverflow.com/questions/42690197/why-does-this-program-with-fork-print-twice/42690260#42690260 for details.