

HW 2: Shell

In this homework, you'll be building a shell, similar to the `bash` shell you use on your CS 162 Virtual Machine. When you open a terminal window on your computer, you are running a shell program, which is `bash` on your VM. The purpose of a shell is to provide an interface for users to access an operating system's services, which include file and process management. `sh` (Bourne shell) is the original Unix shell, and there are many different flavors of shells available. Some other examples include `ksh` (Korn shell), `tcsh` (TENEX C shell), and `zsh` (Z shell). Shells can be interactive or non-interactive.

For instance, you are using `bash` non-interactively when you run a `bash` script. `bash` is interactive when invoked without arguments, or when the `-i` flag is explicitly provided. The operating system kernel provides well-documented interfaces for building shells. By building your own, you'll become more familiar with these interfaces and you'll probably learn more about other shells as well.

Getting started

To get started, log in to your development environment and get the starter code.

```
cd ~/code/personal/  
git pull staff main  
cd hw-shell
```

We have added starter code for your shell which includes a string tokenizer that splits strings into words. To run the shell,

```
cd ~/code/personal/hw-shell  
make  
./shell
```

