Fetch an image from the Docker Registry #HS1 Pending

Complete previous stages to gain access to this stage.

Your Task Pending HARD

Your docker implementation can now execute a program with a fair degree of isolation - it can't modify files or interact with processes running on the host.

In this stage, you'll use the Docker registry API to fetch the contents of a public image on Docker Hub and then execute a command within it.

You'll need to:

- Do a small authentication dance
- Fetch the image manifest
- Pull layers of an image and extract them to the chroot directory

The base URL for Docker Hub's public registry is `registry.hub.docker.com`.

The tester will run your program like this:

```
mydocker run alpine:latest /bin/echo hey
```

The image used will be an official image from Docker Hub. For example: `alpine:latest`, `alpine:latest`, `busybox:latest`. When interacting with the Registry API, you'll need to prepend `library/` to the image names.

Since Rust doesn't have an archive extraction utility in its stdlib, you might w