Build a tool that given an input, will execute the following in no particular order:

1. Finds all the Dockerfile files inside each repository (they will all be GitHub public repositories).

2. Extracts the image names from the FROM statements inside each Dockerfile .

You can find the details of the FROM command from the following link.

https://docs.docker.com/engine/reference/builder/#from
3. Constructs a valid json with the aggregated information for all the repositories.
4. Finally, for automated verification purposes, the tool must print the constructed json to standard output.

Input

The input will be provided as a URL pointing to a plaintext file. Each line will have two fields separated by a space: The https url of the github public repository the commit SHA to verify.

You can skip any line that doesn't match this pattern.

Example input:

https://gist.githubusercontent.com/jmelis/c60e61a893248244dc4fa12b946585c4/raw/25d39f67f2405330a6314cad64fac423a171162c/sources.txt

Output

Example output:

```
{
"data": {
        "https://github.com/app-sre/qontract-reconcile.git:30af65af14a2dce962df923446afff24dd8f123e": {
        "dockerfiles/Dockerfile": [
        "quay.io/app-sre/qontract-reconcile-base:0.2.1"
        ]
},
        "https://github.com/app-sre/container-images.git:c260deaf135fc0efaab365ea234a5b86b3ead404": {
        "jiralert/Dockerfile": [
        "registry.access.redhat.com/ubi8/go-toolset:latest",
        "registry.access.redhat.com/ubi8-minimal:8.2"
],
        "qontract-reconcile-base/Dockerfile": [
        "registry.access.redhat.com/ubi8/ubi:8.2",
        "registry.access.redhat.com/ubi8/ubi:8.2",
        "registry.access.redhat.com/ubi8/ubi:8.2"
        ]
  }
}
}
```

We want to run this as a Kubernetes Job. If you already know kubernetes, that is excellent. If you don't, we will hugely value you taking the additional time to check out minikube or kind and figuring out how to use Jobs .

The list of repository urls should be provided to the Job with the REPOSITORY_LIST_URL environment variable, which should point at an url.