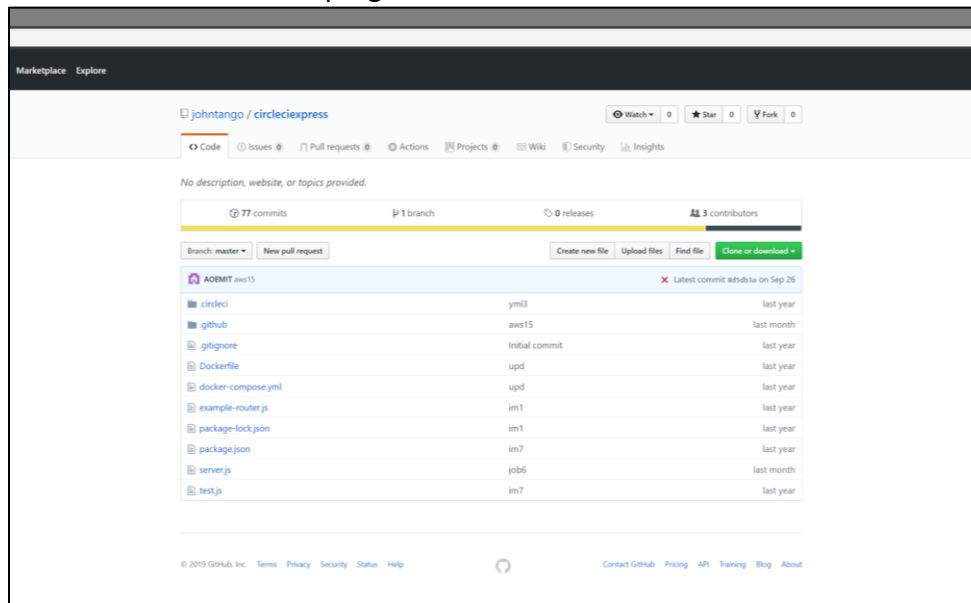


Assignment 4

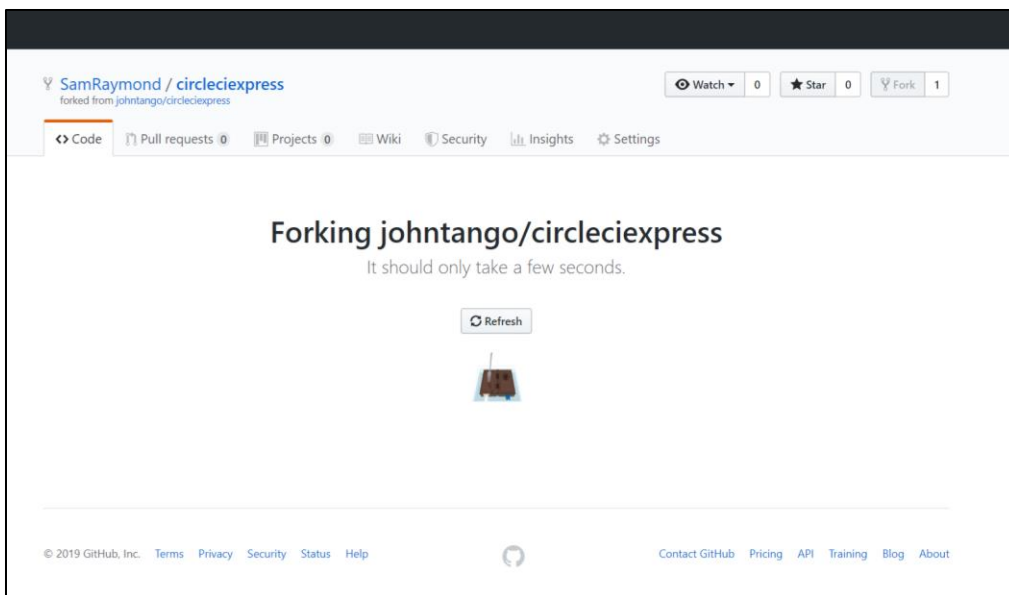
Overall Steps:

1. Fork the repo from: <https://github.com/johntango/circleciexpress>

Navigate to the circleCI example GitHub Repo on Prof. Williams GitHub (here: <https://github.com/johntango/circleciexpress>) and fork this so that you have a copy of the repo in your own account that you can edit at will without affecting their or anyone else's copy. To fork click the *Fork* button on the top right-hand corner of the screen.



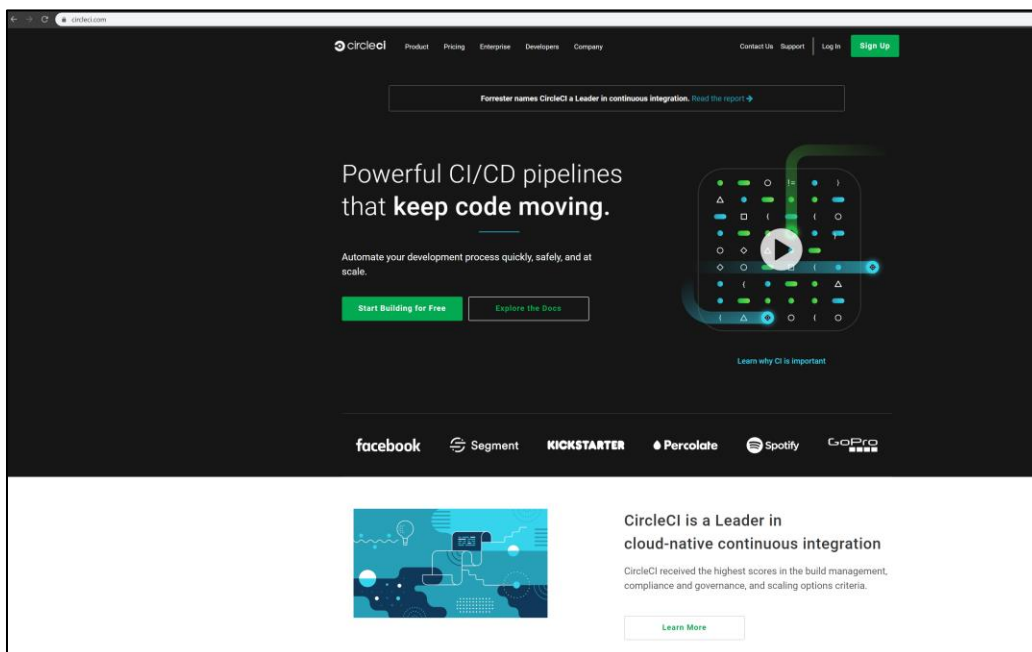
You will see GitHub performing the forking and once it completes, you will be taken to your account and your forked version of the repo.



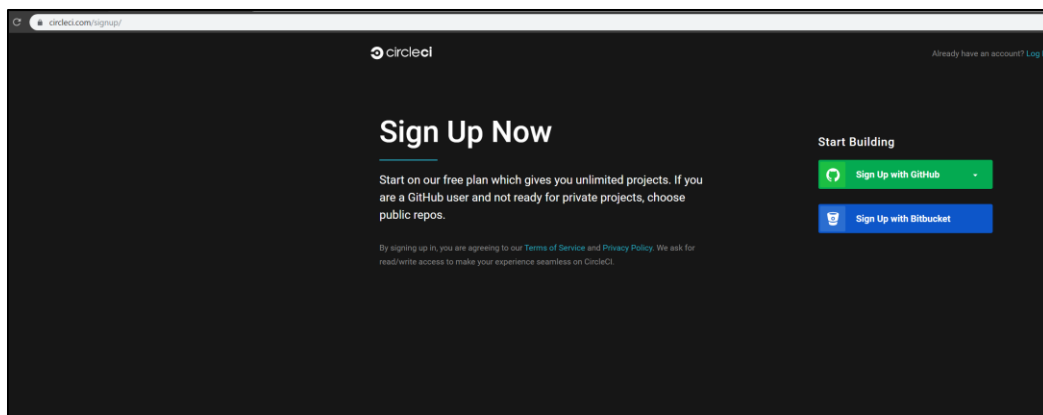
You will be downloading (cloning) this repo soon to make sure you are able to clone from this account to the machine you are using.

1. Sign up to CircleCI and link the GitHub profile

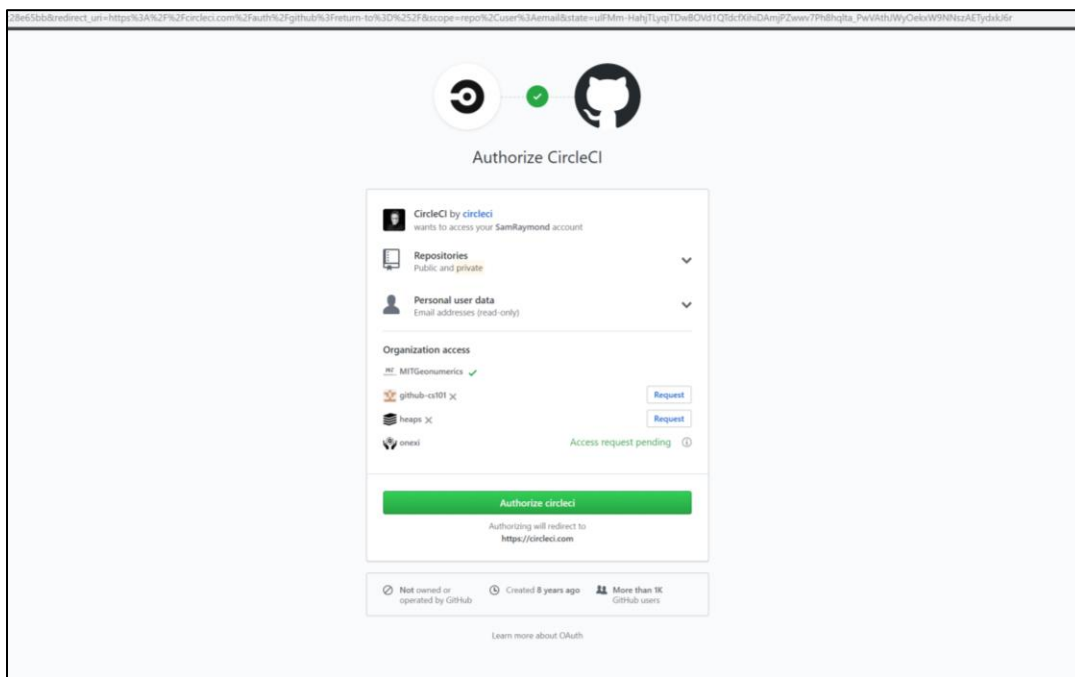
Navigate to circleci.com to sign up for an account. Click on the *Sign-Up* button on the top right corner of the page.



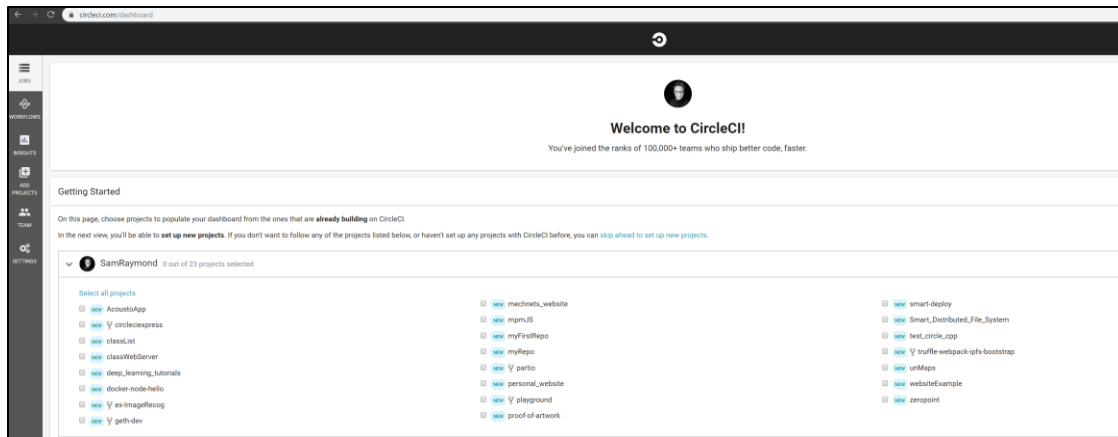
We will be linking our GitHub account to CircleCI so when prompted, select the “Sign Up with GitHub” option.



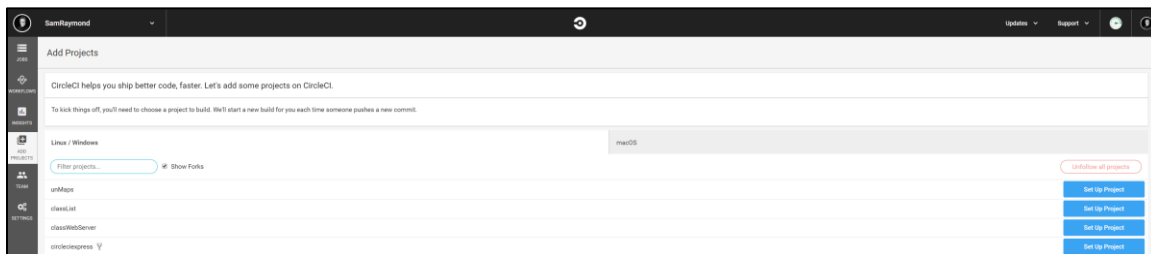
You will then be prompted to either sign in to GitHub or be taken straight to the authorization page. This will tell us what CircleCI needs to have access to so it can function.



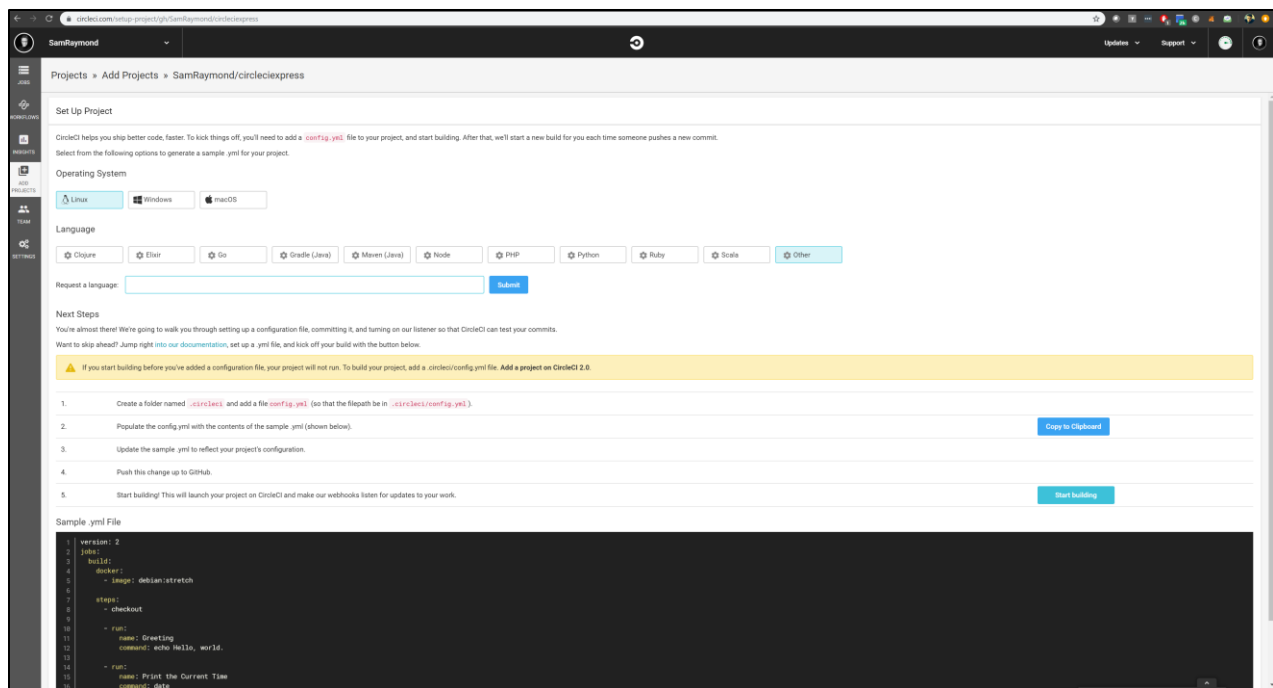
Authorize CircleCI by clicking the button and you will be taken to your new dashboard.



Your dashboard will likely look similar to the image above, however with fewer/more projects (this depends on how many repos you have in your GitHub account). We will link our circleciexpress repo that we just forked. To do this click on the **ADD PROJECTS** button on the left menu.



Here you will be given the option on the far right to **Set Up Project** on the circleciexpress repo. Click this button.



Projects » Add Projects » SamRaymond/circleciexpress

Set Up Project

CircleCI helps you ship better code, faster. To kick things off, you'll need to add a [.circleci/config.yml](#) file to your project, and start building. After that, we'll start a new build for you each time someone pushes a new commit. Select from the following options to generate a sample .yml file for your project.

Operating System

Linux Windows macOS

Language

Clojure Elair Go Gradle (Java) Maven (Java) Node PHP Python Ruby Scala Other

Request a language: Submit

Next Steps

You're almost there! We're going to walk you through setting up a configuration file, committing it, and turning on our listener so that CircleCI can test your commits. Want to skip ahead? Jump right [into our documentation](#), set up a .yml file, and kick off your build with the button below.

⚠️ If you start building before you've added a configuration file, your project will not run. To build your project, add a .circleci/config.yml file. Add a project on CircleCI 2.0.

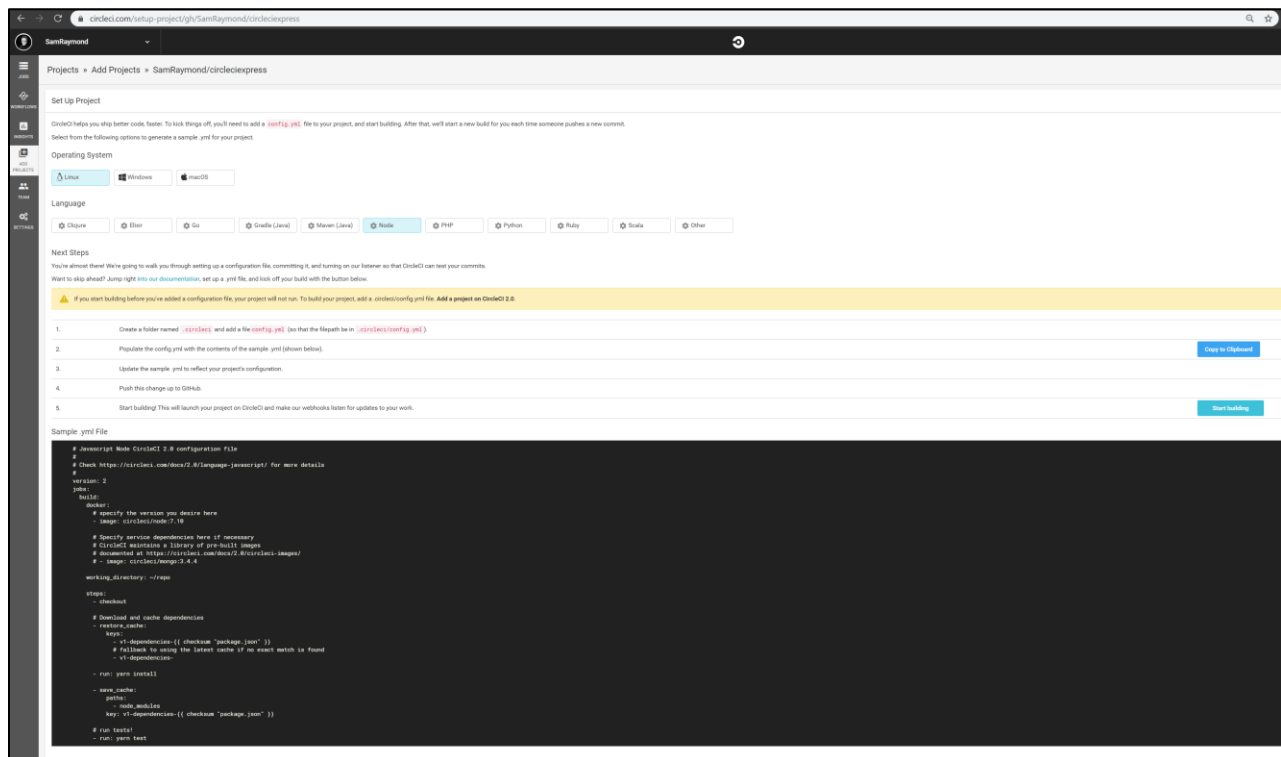
- Create a folder named `.circleci` and add a file `config.yml` (so that the filepath be in `.circleci/config.yml`).
- Populate the config.yml with the contents of the sample .yml (shown below).
- Update the sample .yml to reflect your project's configuration.
- Push this change up to GitHub.
- Start building! This will launch your project on CircleCI and make our webhooks listen for updates to your work.

Copy to Clipboard Start building

Sample .yml File

```
version: 2
jobs:
  build:
    docker:
      - image: debian/stretch
    steps:
      - checkout
      - run:
          name: Greeting
          command: echo hello, world.
      - run:
          name: Print the Current Time
          command: date
```

You will see the initial setup for the project displayed in the image above. Since we have NodeJS code, we need to select the Node option in the Language section. The rest can stay as it is.



Projects » Add Projects » SamRaymond/circleciexpress

Set Up Project

CircleCI helps you ship better code, faster. To kick things off, you'll need to add a [.circleci/config.yml](#) file to your project, and start building. After that, we'll start a new build for you each time someone pushes a new commit. Select from the following options to generate a sample .yml file for your project.

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Next Steps

You're almost there! We're going to walk you through setting up a configuration file, committing it, and turning on our listener so that CircleCI can test your commits. Want to skip ahead? Jump right [into our documentation](#), set up a .yml file, and kick off your build with the button below.

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- Create a folder named `.circleci` and add a file `config.yml` (so that the filepath be in `.circleci/config.yml`).
- Populate the config.yml with the contents of the sample .yml (shown below).
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- Push this change up to GitHub.
- Start building! This will launch your project on CircleCI and make our webhooks listen for updates to your work.

Copy to Clipboard Start building

Sample .yml File

```
# Javascript Node CircleCI 2.0 configuration file
#
# Check https://circleci.com/docs/2.0/language-javascript/ for more details
#
version: 2
jobs:
  build:
    # Specify the version you desire here
    # image: circleci/node:7.10
    # Specify service dependencies here if necessary
    # CircleCI maintains a library of pre-built images
    # documented at https://circleci.com/docs/2.0/circleci-images/
    # - image: circleci/node:2.4.4
    working_directory: ~/repo
    steps:
      - checkout
      # Download and cache dependencies
      - restore_cache:
          key: v1-dependencies-{{ checksum "package.json" }}
          # fallback to using the latest cache if no exact match is found
          - v1-dependencies-
      - run: npm install
      - save_cache:
          paths:
            - node_modules
          key: v1-dependencies-{{ checksum "package.json" }}
      # Run tests!
      - run: npm test
```

You can see that the text in the black box has changed with this selection. This “config.yml” file is something we will need to put into our forked repo. Normally this would be added as a fresh

file. However, the repo that we forked already has a file like this, in a folder called ".circleci", so all we need to do is copy the text in the black area and paste that in the file on our repo and push it back to connect CircleCI.

2. Clone the GitHub repo you forked

Using your GitHub account, clone the circleciexpress repo to your local machine. If you need to recall how to do this, refer to the primer material for GitHub.

3. Make a change to the repo on the local machine

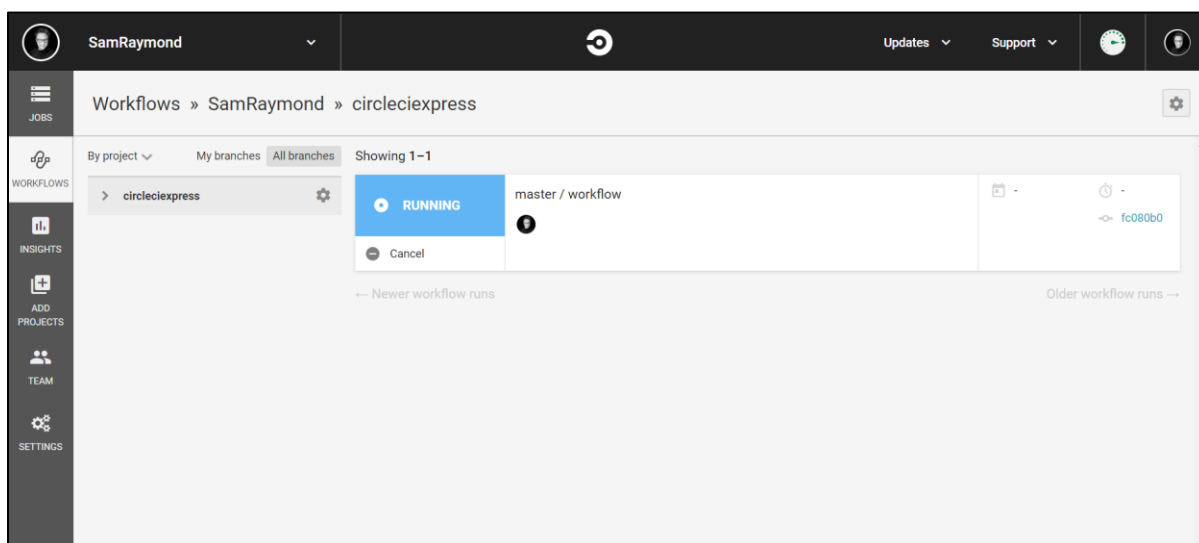
In the downloaded repo, you will see a folder called ".circleci". In this folder there is a file, config.yml. You will need to open that file in VSCode remove all of the contents of that file and replace it with the text that CircleCI provides. You can use the "Copy to Clipboard" button on the webpage to copy the necessary text. Paste this in the file and save it. The file should only have the text that the webpage recommends.

4. Do a Git push for the new work

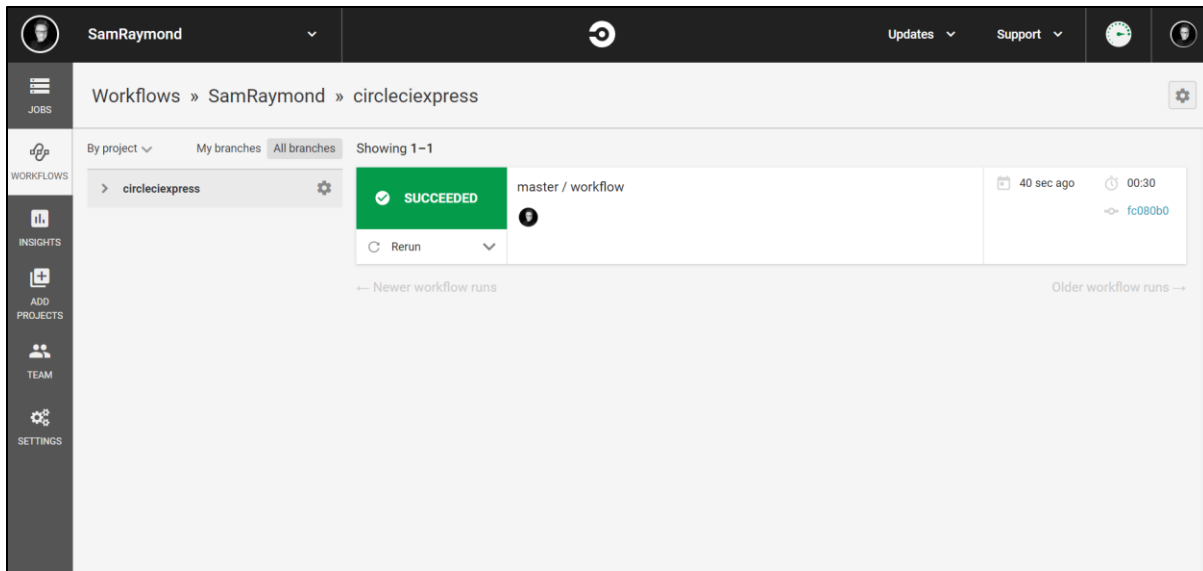
To ensure that CircleCI is watching this repo, perform a git add/commit/push cycle (again refer to the primer if you need to refresh how to do this) so that this change to the file is reflected in your repo on your GitHub.

5. Check CircleCI for the testing

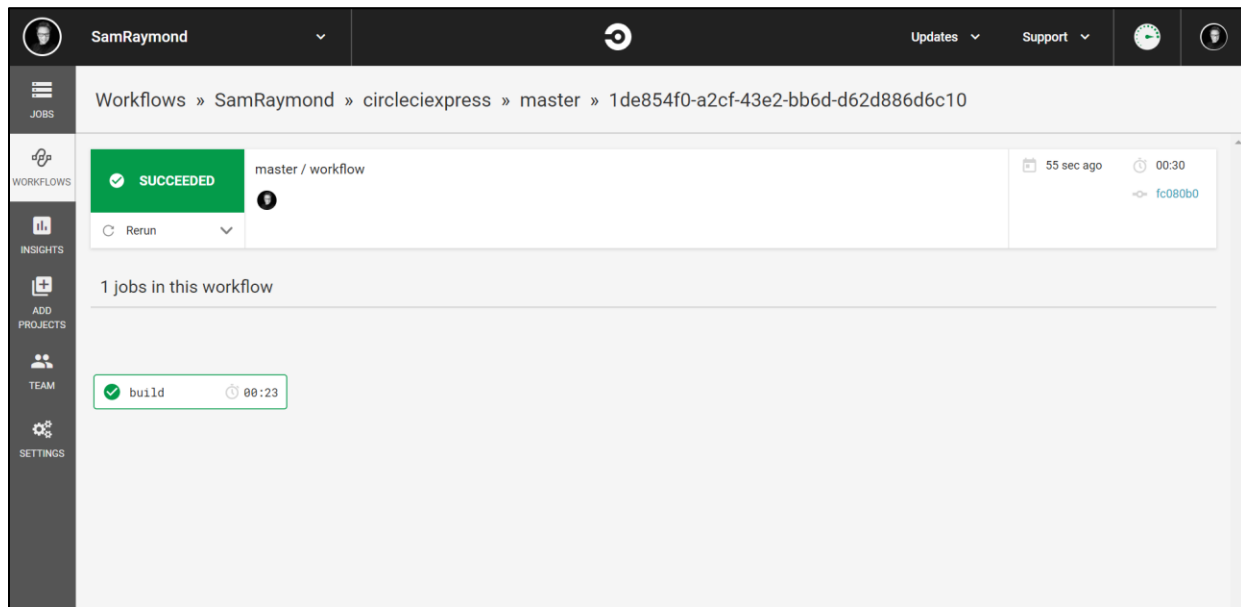
Once you have pushed the changes to your GitHub, go back to your CircleCI page and click on the **WORKFLOWS** tab on the left menu. You will see that the test is being run on CircleCI.



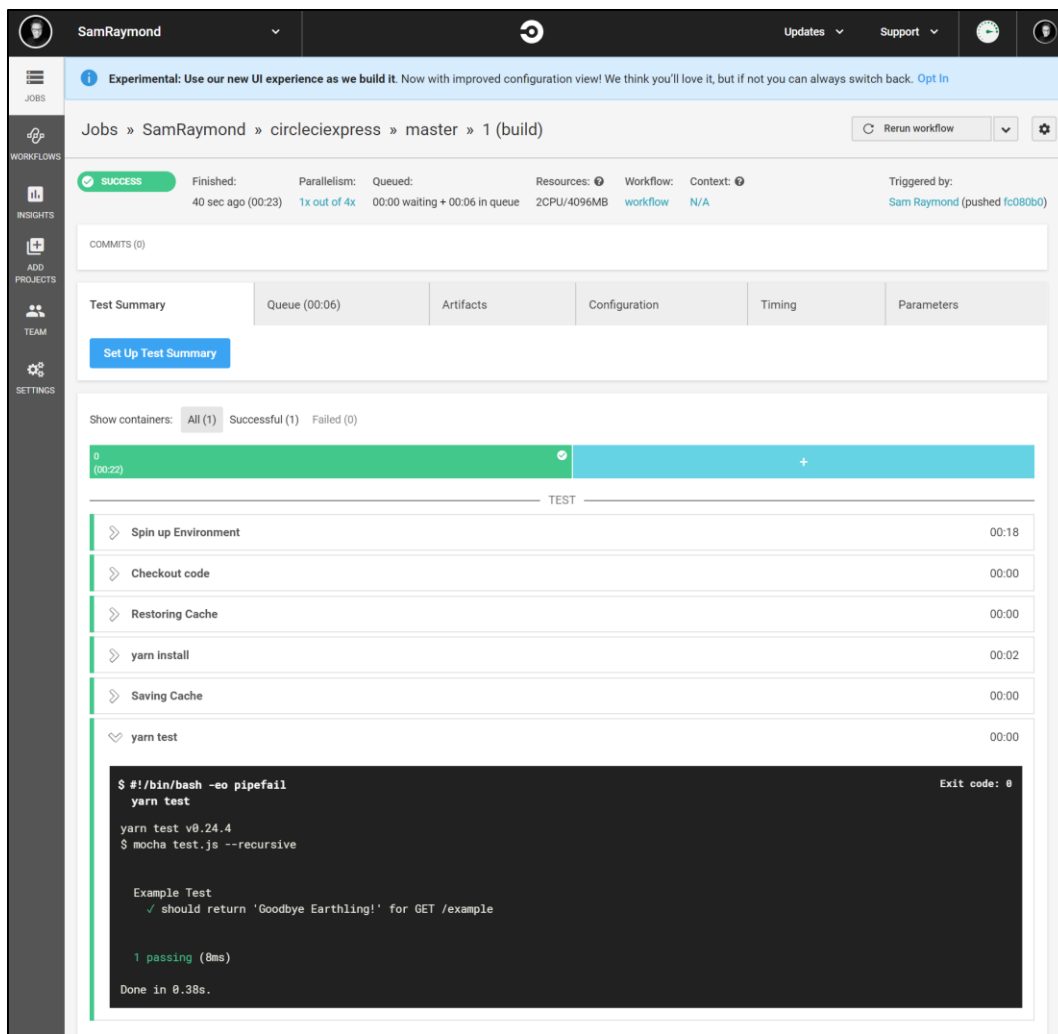
After one-two mins you will see that this has succeeded with the green message replacing the "running" message.



Click on the *succeeded* button so we can see what was run.



You can see that there was one job in this workflow, this is defined in the config file and as such, many things can be performed by altering this config.yml file. Click on the build with the green tick to see what commands were performed.



The screenshot displays the GitHub Actions workflow interface for a repository named 'SamRaymond'. The workflow is titled 'circleciexpress » master » 1 (build)'. The status is 'SUCCESS', indicating the workflow completed successfully. The interface shows various tabs for 'Test Summary', 'Queue (00:06)', 'Artifacts', 'Configuration', 'Timing', and 'Parameters'. A 'Set Up Test Summary' button is visible. Below the tabs, a table lists the steps of the workflow, including 'Spin up Environment', 'Checkout code', 'Restoring Cache', 'yarn install', 'Saving Cache', and 'yarn test'. The 'yarn test' step is expanded, showing the command line output, which includes the command 'yarn test' and the result '1 passing (8ms)'. The output also shows the command 'mocha test.js --recursive' and the message 'Example Test ✓ should return 'Goodbye Earthling!' for GET /example'.

You can see several steps that were performed for this test, clicking on each of them expands to give the command line responses, the yarn test shows that this passed the test of responding with “Goodbye Earthling!”. More details of why this message was produced can be found in the video with this walkthrough.