

High Intensity Software Delivery

Part Two - Iterating and Releasing Rapidly

Now we have our application and our build pipeline set up, we'll rapidly iterate on the code, releasing it into a market where we simulate demand, and monitoring usage to learn about what new features we need to develop. You can compete against your colleagues to see who can deliver the best software most quickly. Who will win?

Getting Started

Carry on with the application and build pipeline that we set up previously. When you want to change the application, make changes to the code locally (write a test first...) and then push each change to GitHub to have Travis build and test your app, and then deploy it if the build passes.

The main point of the code you need to work on is the query processor (and its associated test).

Warmup Round

Register your app with the market. Go to <http://xs.develogical.com:3000> . Click "I want to play". Pick a **team name** and fill in the address of your server on Heroku.

Make sure you include `http://` , the full address and add `/api` at the end of the URL.

e.g. <http://horse-battery-66.herokuapp.com/api>

When you register you get a link to your personal page. Keep this open in a browser. It will give you useful information - you need to refresh the page for it to update. It should soon show some orange rows. Each of these corresponds to a request that was sent to your server - if it's orange, it means your server did not respond correctly, and therefore you lost some points!

Now check to see what requests you are getting. You can do this by running a Heroku command

```
heroku logs --tail
```

or for a specific app name `heroku logs --app horse-battery-66 --tail`

This will show you all the requests coming to your server. Each request contains a unique id at the beginning which allows you to cross-reference the log with the scores pages. In the example below, the id is abc123, and the query is "Who wrote Romeo and Juliet?". %20 is a URL-encoded space.

```
2020-06-21T15:28:29.721653+00:00 heroku[router]: at=info method=GET
path="/api?q=abc123:%20Who%20wrote%20Romeo%20and%20Juliet?"
host=powerful-island-30796.herokuapp.com request_id=82de257d-8a97-4499-
bae9-5a80ea47ac4e fwd="86.14.191.66" dyno=web.1 connect=1ms service=3ms
status=200 bytes=219 protocol=http
```

What queries is your application receiving? You can add more logging code to your app if you want to see more information in the logs.

Improve the App

You need to change what the server responds with so that it answers the requests appropriately. If the market likes your response you gain points. If you respond with something it thinks is wrong, you lose points.

In the warmup round, all the queries are the same, so once you have solved it, you should get every request correct. If you check the info page in the browser, the orange rows should start going green.

When we switch to the real game, there will be a range of different queries

Play for Real

Once people are happy with the warmup round we will restart the server and begin the real game.

You will need to re-register.

Player details are reset when we switch from the warmup to the real game.