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Report 2 - Heroku Tutorial

1. Task Time

This task took about 2 hours (about 1 hour for the tutorial and 1 hour for setup and writing).

2. Tutorial Problems

The tutorial is meant to be straightforward and foolproof so I only encountered a few small hiccups:

- Since I started from scratch I had to set up a Heroku account and install Python 3.6, Pipenv, and Postgres; this all went smoothly.
- In the tutorial step *Scale the app*, the tutorial had me scale down to zero dynos and prompted me to "Access the app again by hitting refresh on the web tab...". This confused me, since I thought (correctly) that the app wouldn't work with zero dynos. I tried anyway and received an error. I spent a minute trying to figure out why the tutorial was acting like the app was still supposed to work, before I finally read the next line in the tutorial: "You will get an error message because you no longer have any web dynos available to serve requests."
- In the step *Run the app locally*, my default Mac browser Safari misinterpreted the app's local URL as a search engine query and opened up a web search. I avoided this problem by opening the URL in Google Chrome.
- I was slightly confused at the next step, Push local changes, when it asked me to modify the file hello/views.py.
 I didn't understand the requests module. That requests contained this new app code made sense once the app was running.
- I wondered why the step *Provision add-ons*, namely the command \$ heroku addons:create papertrail, wasn't working until I noticed an error message saying the add-on required further account verification (see screenshot below). After reviewing Piazza, which discussed Heroku's credit card requirement, I opted to simply skip this step.

3. Tutorial Value

This exercise was valuable in introducing me to the workings of the Heroku system and Heroku apps. I saw how Heroku provides a substantial framework for developing online applications, with built-in scaling, testing, and editing tools etc., as opposed to the bare-bones infrastructure of IaaS platforms. I now know where to start to create a Heroku application; however, I still have very little sense of how coding the application would work after setup and would need to further examine documentation to feel comfortable straying beyond the scope of the tutorial.

4. Heroku Pros & Cons

Heroku's pros appear to include its substantial documentation, its ease of use, and the speed with which it allows one to get an application off the ground (even providing template applications). It also seems to be relatively inexpensive at first glance, though I would have to do more research to evaluate its value for larger commercial applications.

My own impression of Heroku's downsides is only that Heroku may be inflexible since it provides so much abstraction and lays so much development groundwork. A more barebones hosting platform may provide developers with more work but also more flexibility (e.g., to configure application and hosting settings, to relocate the application, to scale the application, etc.).