

Lab 7 —Heroku

Objectives

- Deploy a simple web page with [Heroku](#)
- Explore advantages and drawbacks of cloud services
- You can pair program today. (Optional)

Pre-lab

This lab should be done either in the CS VM or on the CSEL machines, please don't do this lab natively on your own machine unless you understand how to work the apt or [brew](#) package managers (so that you can list and obtain everything in the 3308 package) and are sure you have everything in the 3308-package installed already.

1. Update package sources and install the latest versions
`sudo apt-get update && sudo apt-get upgrade`
2. Make sure you have PHP installed on your machine. (PHP 5.3.2+ is required for this lab)
If you have an older version, please upgrade your PHP using the following command:
`sudo apt-get install php5.5` or `sudo apt-get install php7.0`
3. Signup for a [free Heroku account](#).

Exercise

Go to Heroku's [PHP tutorial](#).

1. Install [Composer](#) locally using the following commands:

```
php -r "copy('https://getcomposer.org/installer', 'composer-setup.php');"

php -r "if (hash_file('SHA384', 'composer-setup.php') ===
'669656bab3166a7aff8a7506b8cb2d1c292f042046c5a994c43155c0be6190fa
0355160742ab2e1c88d40d5be660b410') { echo 'Installer verified'; }
else { echo 'Installer corrupt'; unlink('composer-setup.php'); }
echo PHP_EOL;"

php composer-setup.php
```



2. During the *Set up* step, download the version of the Heroku Toolbelt for Debian/Ubuntu.
3. Login with your email and password, and follow the instructions given in the tutorial.
4. After you are done with the *Push local changes* step in the Heroku tutorial, you'll display the answers to the following questions in your example PHP web app. You may modify `php-getting-started/web/index.php` to serve answers in the following format:

1. Your name(s)
2. Current date
3. CSCI-3308
4. Answers to the following questions

Questions

Write two or three sentences per question.

1. When would you choose an IaaS over PaaS and why? Give an example scenario where an IaaS would be the best option and explain why it is a better choice than a PaaS (in your scenario).
2. Describe a security concern in cloud computing data storage.
3. Why shouldn't all software and apps migrate to the cloud? Give an example or two of software that would not benefit from being in the cloud.

Note: Once you make changes to any files in the repository, you need to redeploy the Heroku application (by doing `git add`, `git commit`, `git push`) for the changes to get reflected.

5. (Optional): You can also try to deploy your `store.php` or the entire php web application files from Lab8 on this newly created Heroku app to understand how to deploy a PHP web application on Heroku.

The remaining steps in the Heroku tutorial (provision add-ons, start a console, etc) are optional, but may be helpful if you want to use Heroku to deploy your class project.

Credit

To get credit for this lab exercise, show the TA your deployed web page displaying answers to the above questions.