

HEROKU



University of Colorado
Boulder



ANNOUNCEMENTS

- This week's lab is the last one for this semester.
- It is a short lab so please finish it within the lab hours. You could use the remaining time to work on your project.

HEROKU



One of the first PaaS providers out there (June 2007)



Initially focused on Ruby



Purchased by Salesforce in December 2010



Free on a small scale (great for students)



Many competitors

AWS, Google Sites, Azure, OpenShift, DigitalOcean



Applications have a unique domain name: `<applicationname>.herokuapp.com`

G2 Crowd Grid[®] for **Cloud Platform as a Service (PaaS)**

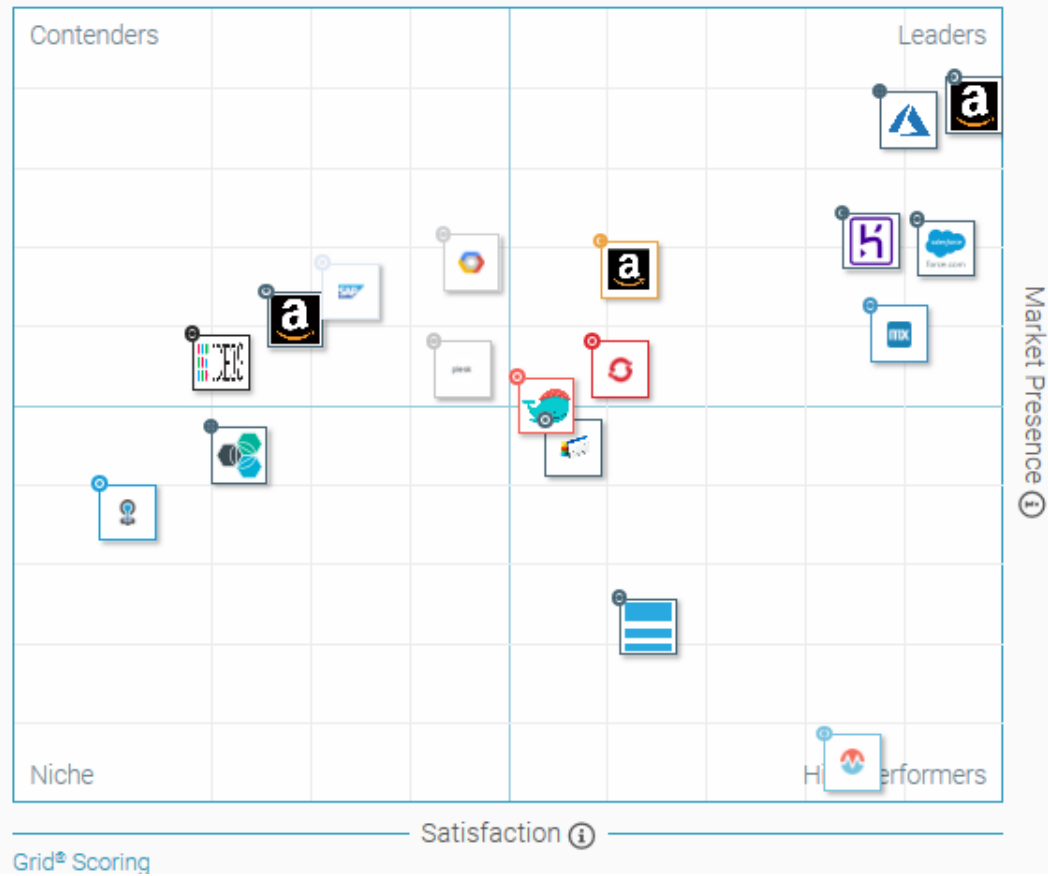


ALL

SMALL-BUSINESS

MID-MARKET

ENTERPRISE



HEROKU

Everything you need to build, run, and scale customer apps



Dynos

Run virtually any
language at scale



Database

Enterprise grade
PostgreSQL as a Service



Add-ons

Marketplace for data
stores and app services



Slug - The build system takes the application, its dependencies, and the language runtime and produces a “slug.” A slug contains everything needed to run the app, except for the operating system.

<https://devcenter.heroku.com/articles/slug-compiler>



Dyno – Dynos are isolated, virtualized Linux containers that are designed to execute code based on a user-specified command. <https://www.heroku.com/dynos>



Procfile – Heroku apps include a **Procfile** that specifies the commands that are executed by the app on startup.

<https://devcenter.heroku.com/articles/procfile>



Dyno Manager - The dyno manager keeps dynos running automatically; so operating your app is generally hands-off and maintenance free. <https://devcenter.heroku.com/articles/dynos>

TERMS TO KNOW

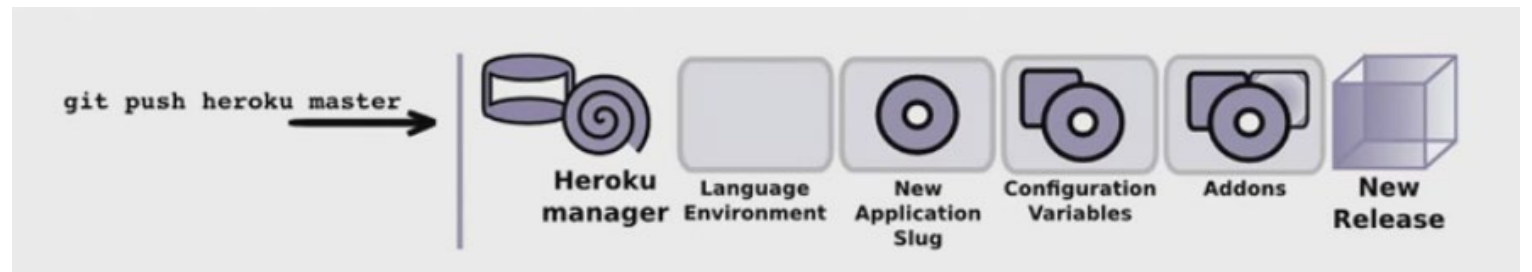
HEROKU



- Provides users with one or more DYNOs
- Provides Standard PostgreSQL database engine
- Allows “add-on’s” <https://elements.heroku.com/addons>
 - Load testing
 - Email sending
 - Continuous Integration and Delivery
 - Alternate DB (MySQL, Mongo or Redis)
- Core support for Ruby, Python, NodeJS, Java, PHP
- Tightly integrated with git for version control

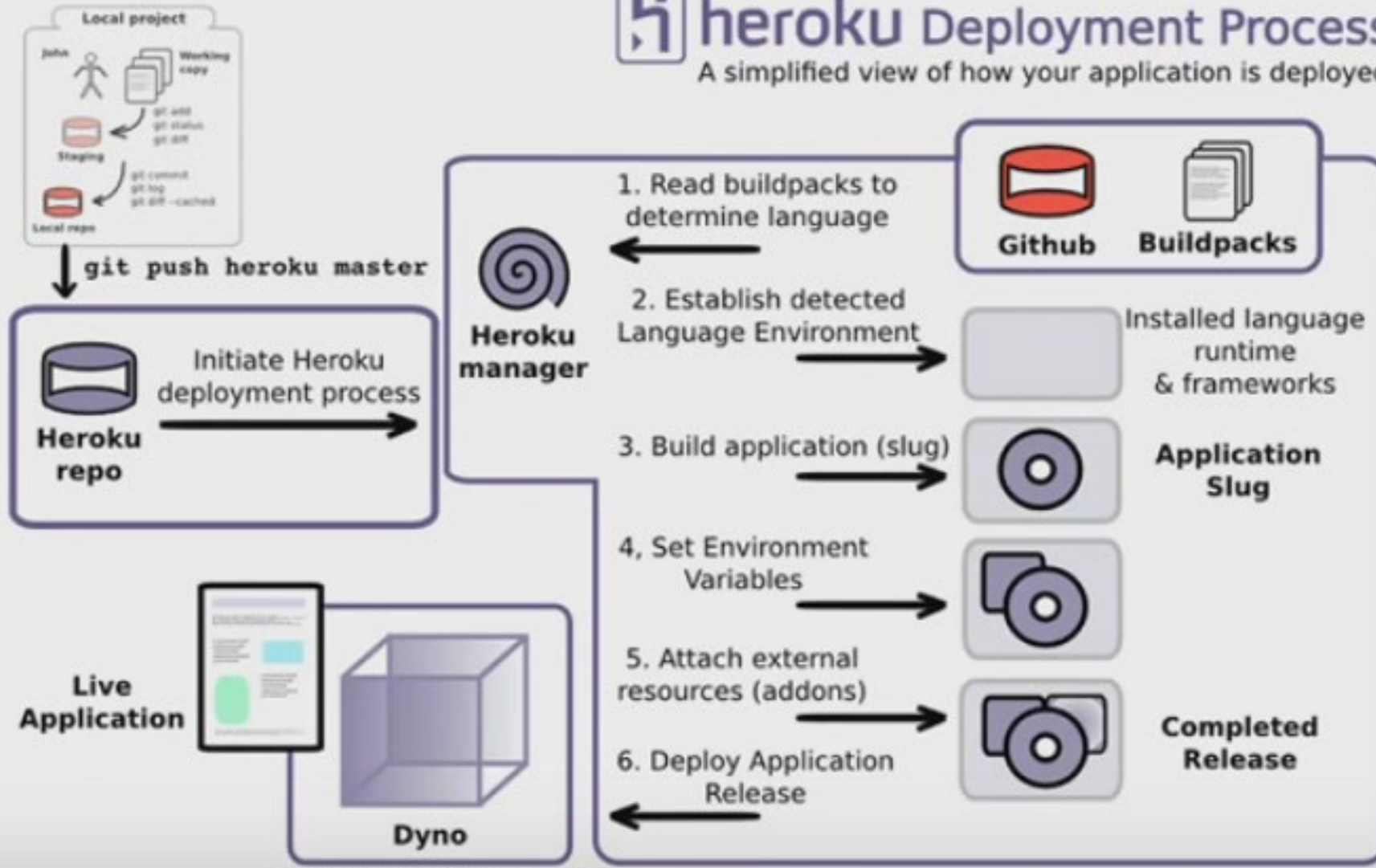
HEROKU

- Write your app in any supported language
- Ready to deploy, push to heroku git master
- Heroku Manager
 - Packages your app into an executable bundle
 - Contains all components needed to run your app
 - Slug is executable on the DYNODE
 - Compiled through a “buildpack” and “slug compiler”
 - Every change is a “new release” – easy to roll back



heroku Deployment Process

A simplified view of how your application is deployed



The release is deployed to a new set of Dynos for the Heroku application

HEROKU



- Learn More At :
- <https://devcenter.heroku.com/categories/reference>

HEROKU

- Follow this tutorial:

<https://devcenter.heroku.com/articles/getting-started-with-nodejs#introduction>

- This will walk you through
 - Downloading and installing correct versions of Heroku CLI, git, node, npm
 - Setting up your own account at Heroku
 - Clone a “demo” app from Heroku’s website
 - Deploy the “demo” app cloned from Heroku
 - Provision a PostgreSQL database