Introduction to Heroku

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What is Heroku?

- Heroku is a cloud-based platform for building, deploying, and managing applications.
- It allows developers to deploy their applications to the cloud without worrying about the underlying infrastructure (PaaS).
- Heroku supports many popular programming languages, including Ruby, Python, PHP and Java.
- Heroku provides a simple and intuitive web interface as well as a powerful command-line tool called the Heroku CLI.
- In this presentation, we will learn how to use Heroku to deploy a simple PHP web application.

How does Heroku work?

- Heroku uses a container-based architecture called dynos to run applications.
- Each dyno is a lightweight Linux container that runs a single user-specified command, such as a web server or a worker process.
- Heroku provides add-ons such as databases, caching, and monitoring to help developers build and scale their applications.

Installation

- To install Heroku, we need to first install the Heroku CLI (Command Line Interface).
- We can download the Heroku CLI installer from the official Heroku website:
  `https://devcenter.heroku.com/articles/heroku-cli`.
- Once downloaded, we can run the installer and follow the installation instructions.
- We also need to have git installed on our system. To install git, use the following link:
  `https://git-scm.com/downloads`

Configuration

- After installing the Heroku CLI, we need to configure it by logging in to our Heroku account.
- We can do this by running the following command in the terminal:
  `$ heroku login`
- This will prompt us to enter our Heroku credentials (email and password).
- NOTE:To deploy any app using Heroku, we need to setup a payment method.

Development

- Now that we have installed and configured Heroku, we can start developing our PHP hello world program.
- We need to create a new directory for our project:
  `$ heroku create php-tutorial`
- We can then create a new file called `index.php` and add the following code to it:

```
<?php (include "index.html");?>
```

- Now create an index.html file and add the contents you wish to display in this file.
- Create an empty file and name it composer.json.

Deployment

- To deploy the PHP project to Heroku, navigate to the project directory in the terminal.
- Run the following commands to push git changes to heroku:

```
$ git init
$ git add .
$ heroku git:remote -a php-tutorial
$ git commit -m "initial commit"
```

- Set the buildpack to php by using the following command

```
$ heroku buildpacks:set heroku/php
```

Deployment

- Run the following command to push the PHP project to Heroku:
  `$ git push heroku master`
- This will upload your code to Heroku and automatically build and deploy your application.
- Finally, run the following command to open your application in a web browser:
  `$ heroku open`
- Your "Hello, world!" web page should now be displayed in the browser.

Conclusion

- Heroku is a powerful platform for building, deploying, and managing applications in the cloud.
- It supports many popular programming languages and provides add-ons to help developers build and scale their applications.
- In this presentation, we learned how to use Heroku to deploy a simple PHP web application.
- By creating a free account and installing the Heroku CLI, you can also get started with Heroku today!