

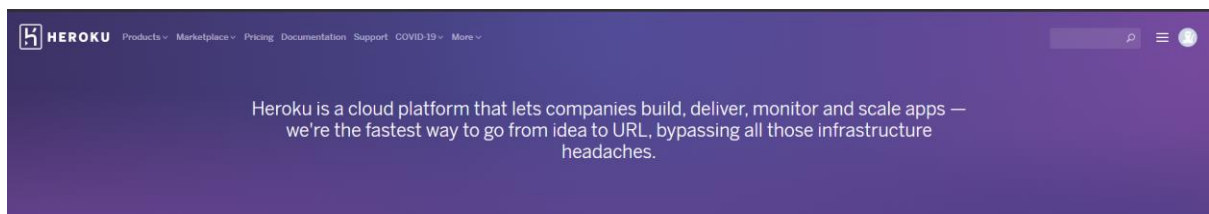
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### Introduction

This document is to provide a walk-through on the steps required to freely host a website on the Heroku cloud platform and has been created to highlight the potential of the Heroku platform as an optional solution for hosting prototypes with no expense.

### What is Heroku?



*Figure 1 - About Heroku.com*

Heroku is a cloud platform for building, delivering, monitoring, and scaling apps. It offers solutions for free webhosting which may be of use as a prototyping demonstration tool during Agile development life cycles. The platform has GitHub connectivity features with options to enable pipelines to GitHub repositories for continuous integration and continuous deployment solutions.

## Method

### Create an Account

Creating an account can be achieved at: <https://signup.heroku.com/login> and entering user details as follows illustrates:

Figure 2 - Heroku Account Creation Dialog

\*\*\***Note:** In order to connect Heroku to your GitHub repositories, the email must match that of your GitHub profile.\*\*\*

## HEROKU - PROTOTYPE HOSTING OPTION

After confirming your account via the email sent to the specified email address and logging into the platform, the user is present with the home screen as shown in Figure 3.

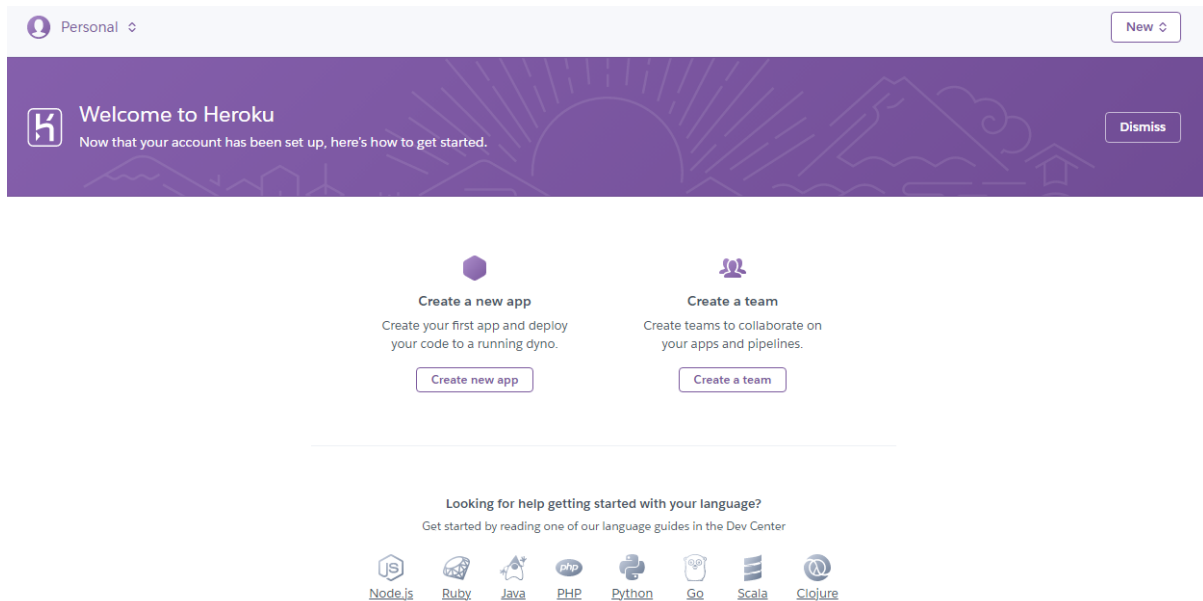


Figure 3 - Heroku New User Homepage

### Creating an App

From the dashboard shown in Figure 3, selecting **Create new app** displays the create new app dialog in which an app name and hosting region can be specified as shown in figure 4.

The image shows the 'Create New App' dialog. At the top, the title 'Create New App' is centered. Below the title, there is a section for 'App name' with a text input field containing 'autism-it-resources' and a green checkmark icon to its right. Below the input field, the text 'autism-it-resources is available' is displayed. Underneath, there is a section for 'Choose a region' with a dropdown menu showing 'Europe' and a small expand/collapse icon. At the bottom of the dialog, there are two buttons: 'Add to pipeline...' and 'Create app'.

Figure 4 - Create New App Dialog

## Adding a Build Pack to the Project

After creating the app, the user is presented with the apps dashboard as shown in Figure 5. The next step is to specify the desired build pack to be used for the app when building and deploying the app to Heroku.

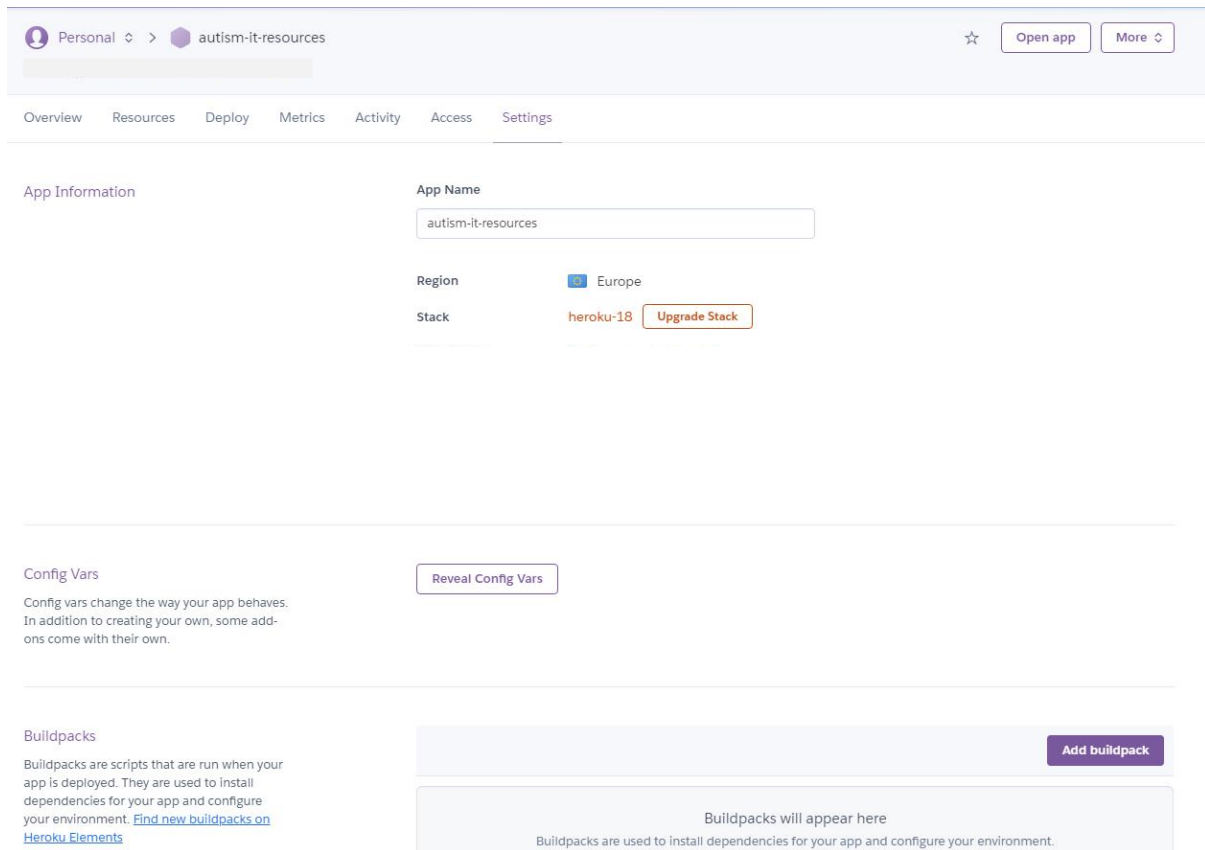


Figure 5 - App Dashboard

***There are custom build pack available for static HTML builds, but they require additional configurations in order to function. The simplest option to host static HTML websites is to simply use the default Heroku PHP build pack and rename your HTML file extensions to PHP extensions.***

Adding the PHP build pack can be achieved by clicking the **Add build pack** under the apps dashboard **setting** tab as shown in Figure 5, which displays the build pack options shown in Figure 6 from which **PHP** can be selected followed by **Save changes**, adding the PHP build pack to the app.

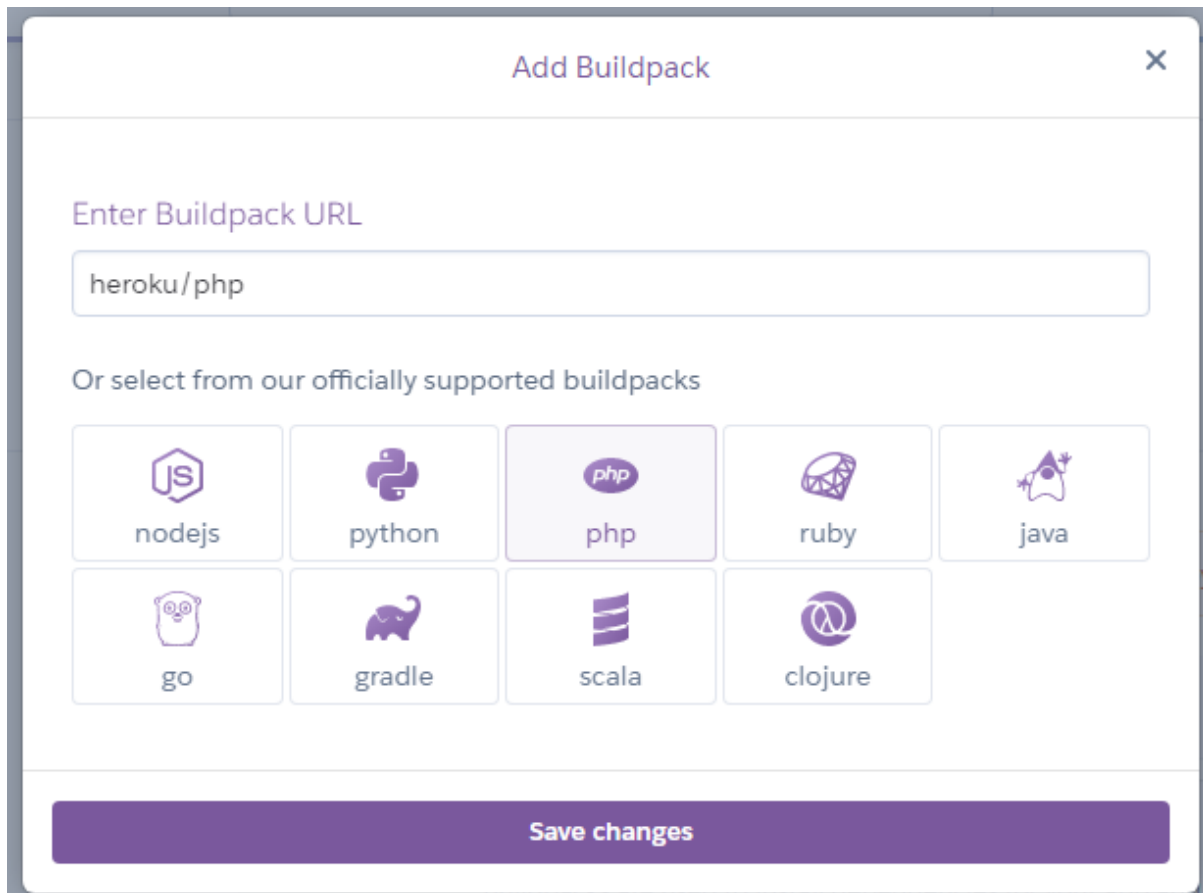


Figure 6 - Heroku Default Build Packs

## Connect the App to a GitHub Repository

With the app created and the build pack in place, the next step is to connect the Heroku app to the GitHub repository to be hosted by the Heroku platform.

For this demonstration, a test repository was created containing one **index.php** file, the contents of which shown in Figure 7.

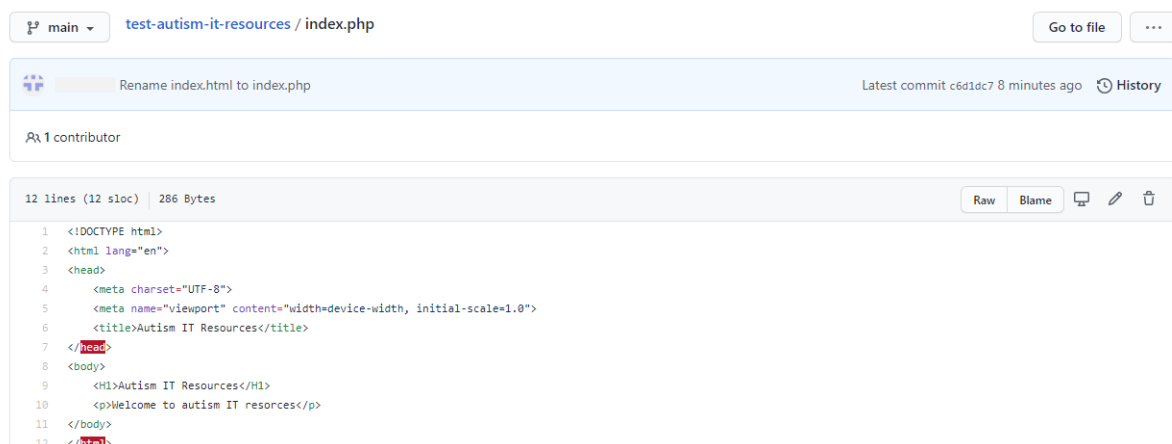


Figure 7 - Test Repo index.php

## HEROKU - PROTOTYPE HOSTING OPTION

**Note:** the **index.php** file will be the source file Heroku looks for when building and deploying the app and will be required for a successful build and deployment.

Connecting a repository to Heroku can be done under the **Deploy** tab of the apps dashboard shown in Figure 8, by first selecting **GitHub** as the **Deployment method** followed by **Connect to GitHub** which will initiate an authorisation process for connecting Heroku to your GitHub account.

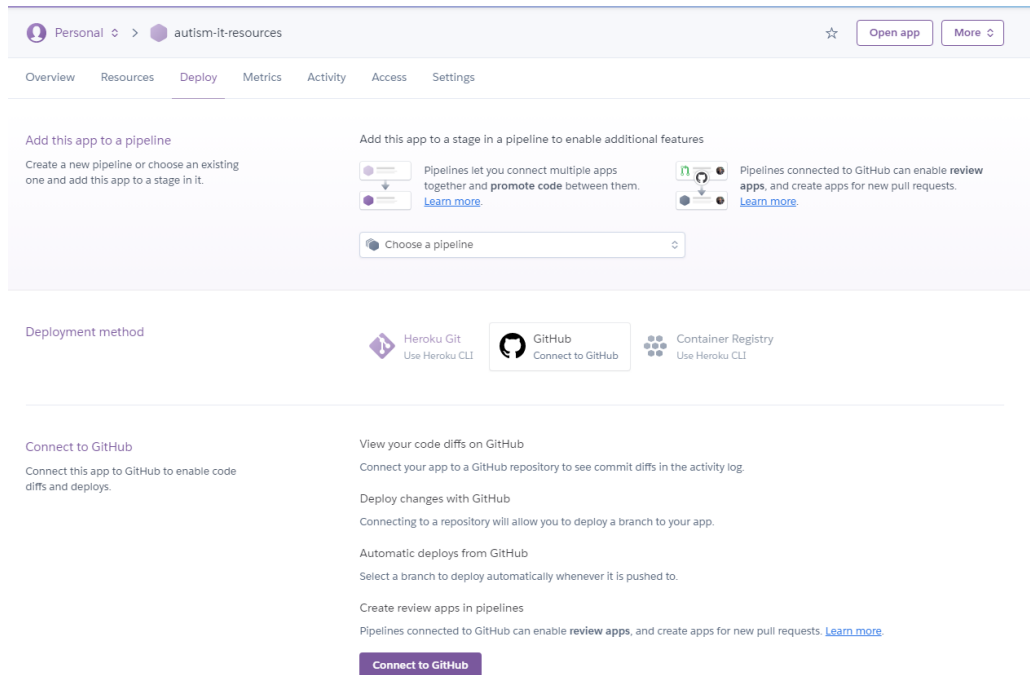


Figure 8 -Connect to GitHub Repository

After authorising Heroku to connect to your GitHub account, options to search, select and connect to a specific repository will be available, as show in Figure 9.

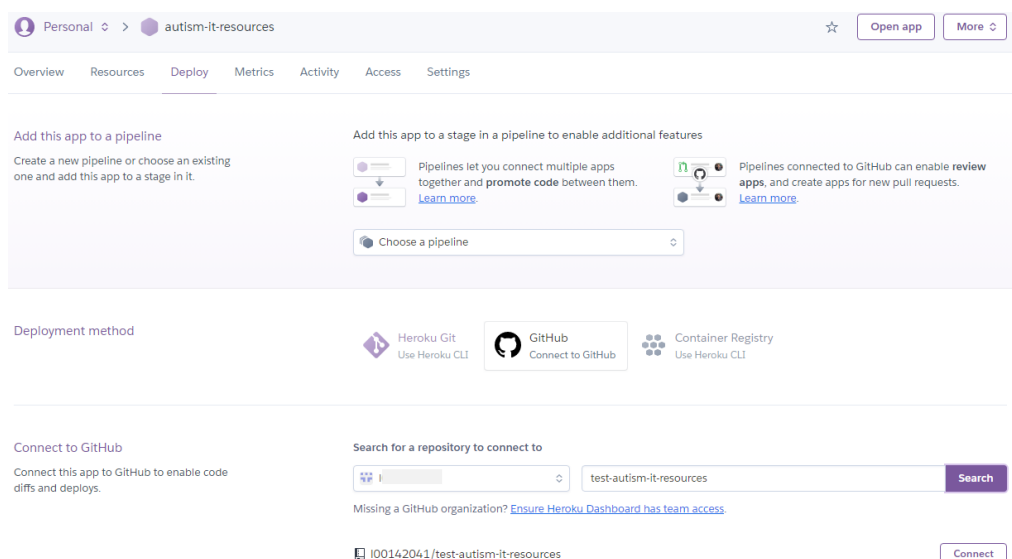


Figure 9 - Selecting a Specific GitHub Repository

## Deploying a Connected GitHub Repository

With the app connected to the GitHub repository, deployment is a simple matter of selecting the desired branch and clicking **Deploy Branch**, the results of which shown in Figure 10.

The screenshot shows the Heroku dashboard for a GitHub repository. It is divided into three main sections: 'App connected to GitHub', 'Automatic deploys', and 'Manual deploy'.

- App connected to GitHub:** Shows the app is connected to the repository `test-autism-it-resources`. It includes a 'Disconnect...' button and a link to the 'activity feed'.
- Automatic deploys:** Contains a notification about changing the main deploy branch from 'master' to 'main'. It has a section to 'Enable automatic deploys from GitHub' with a dropdown set to 'main', a checkbox for 'Wait for CI to pass before deploy', and an 'Enable Automatic Deploys' button.
- Manual deploy:** Shows the 'Deploy a GitHub branch' section with a 'Deploy Branch' button. Below this is a progress bar with four steps: 'Receive code from GitHub', 'Build main', 'Release phase', and 'Deploy to Heroku', all of which are marked as complete with green checkmarks.

At the bottom of the manual deploy section, a message states 'Your app was successfully deployed.' with a 'View' button.

Figure 10 - Heroku GitHub Repository Build & Deployed Complete.

## Viewing the Hosted GitHub Repository

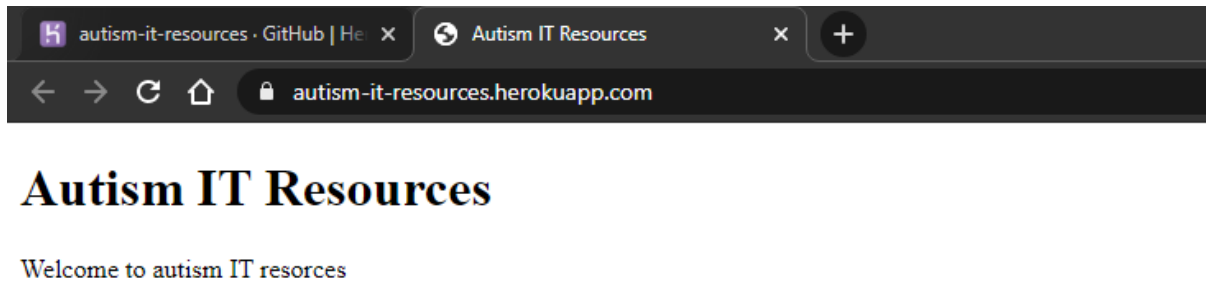
Viewing the hosted website can be done by selecting **Open App** at the top of the **Deploy** tab of the app dashboard as shown in Figure 11.

The screenshot shows the Heroku app dashboard for the 'autism-it-resources' app. The 'Deploy' tab is selected in the top navigation bar. At the top right of the dashboard, there is an 'Open app' button. Below the navigation bar, there are sections for 'Add this app to a pipeline' and 'Add this app to a stage in a pipeline to enable additional features'. At the bottom, the 'Deployment method' section shows 'Heroku Git' as the selected method, with 'GitHub' listed as a connected provider.

Figure 11 - Open App Button to View Deployed App



The **index.php** file of the GitHub repository hosted via Heroku with no expense is then presented in a new tab, as shown in figure 12.



*Figure 12 - Free Hosted GitHub Project via Heroku.*