

Rapid Application Development

Hello GAE

This lab is designed to take you through many of the key features of Google App Engine (GAE) development. Don't worry if you don't understand many of the terms. Spend time finding your way around the the tools and ensure you understand the purpose behind the steps you carry out.

To complete this lab you will need to have Google App Engine Python SDK and the Brackets code editor installed.

During this lab we will be learning the basics behind configuring the App Engine Launcher and using it to create and deploy a simple hello world application.

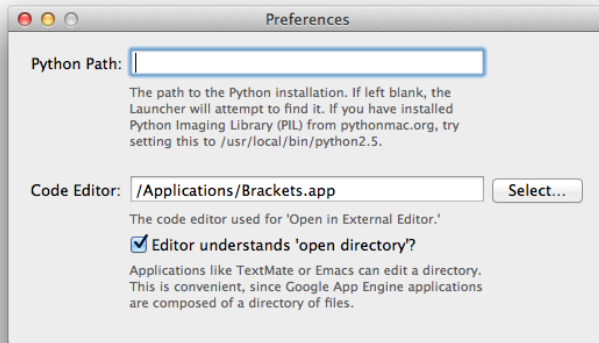
Software Requirements

In order to complete this lab you will need access to a computer running the Google App Engine SDK and the Brackets code editor. These are both free downloads.

Regular Testing

The lab is broken down in a series of tasks. At the end of each task you should run your project in the web browser to ensure there are no build errors. The steps it takes you through are typical for all GAE projects.

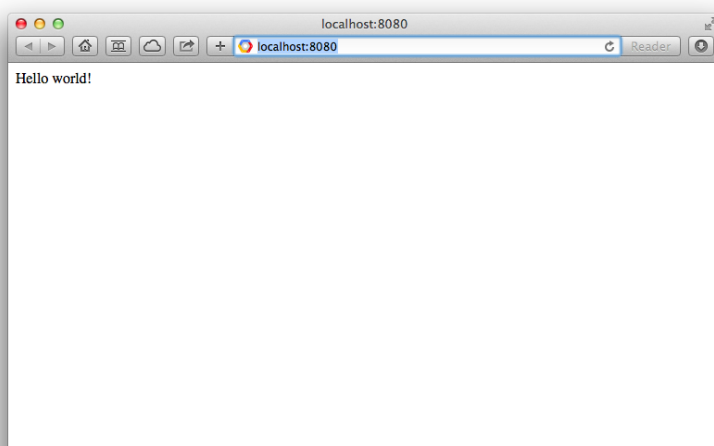
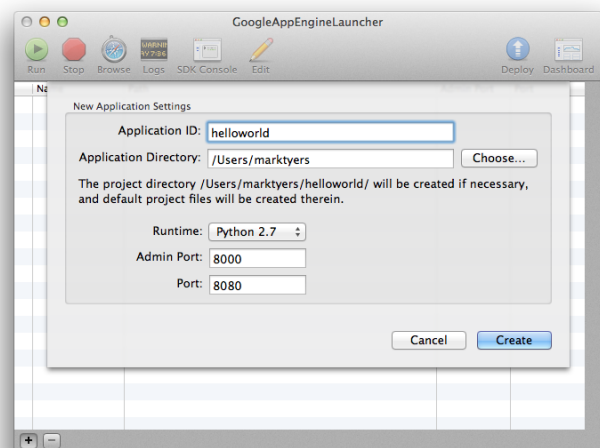
Configure the Default Editor



Open the App Engine Launcher preferences and use the Select button to browse to your Brackets application. Close the preferences once this is done.

Creating a New Project

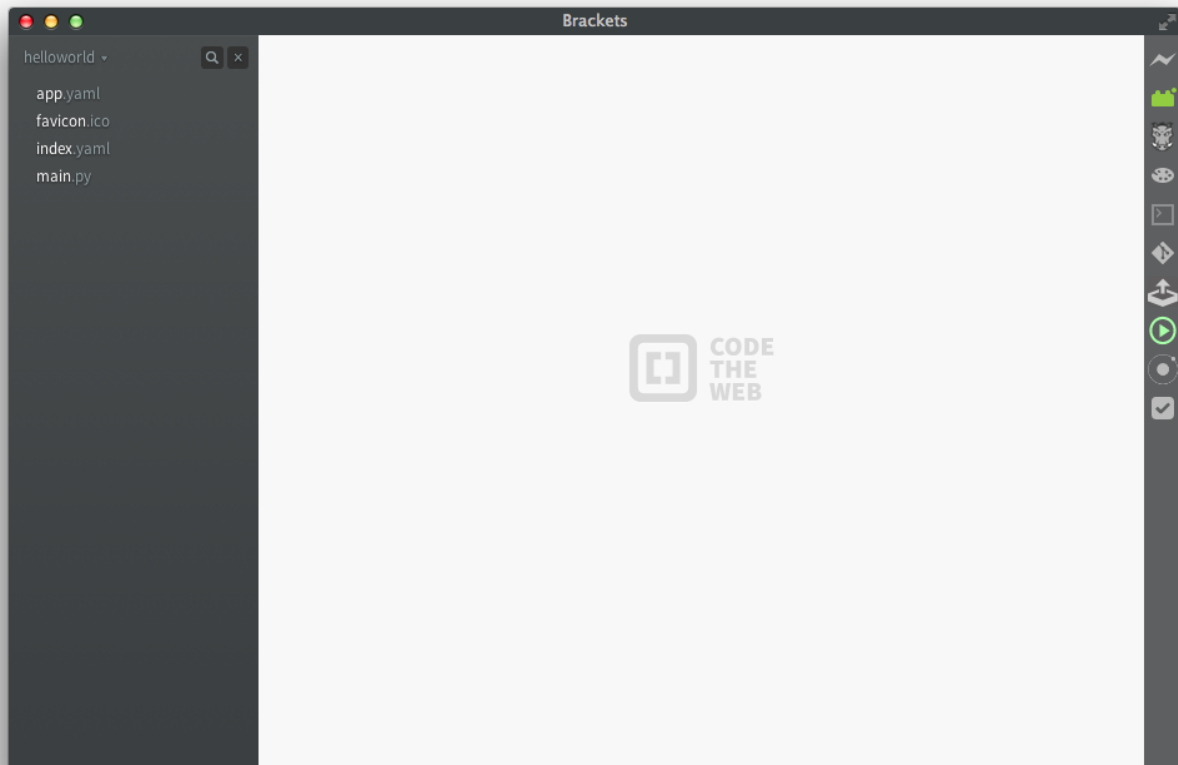
Open The App Engine Launcher software and click on the (+) button (bottom left) to create a new project. Choose an Application ID of helloworld and choose an appropriate application directory. Make sure the runtime has defaulted to Python 2.7, then click on Create.



Test your empty application by clicking on the Run button. Once the application is running the browser button will become available. Click this to view your application in your default web browser.

Editing Your Code

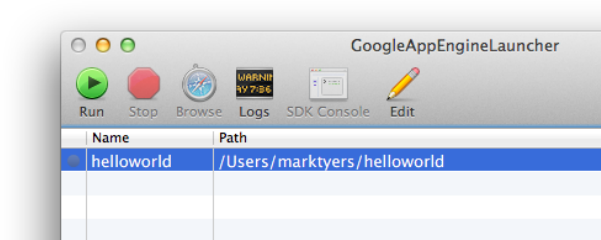
Return to the App Engine Launcher and, with your project still selected, click on the Edit button. This will open the Brackets code editor. You will see the project files down the left hand-side of the window.



Change the message displayed in the browser. It should be a top-level heading (H1) saying Hello GAE. Save your changes and refresh the web browser.

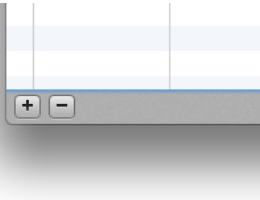
Adding and Removing Projects

It is important that you can manage the projects in the App Engine Launcher. The task is to remove the project you are currently working on. Before doing this, make a note of where the files are saved. This can be found in the path column in the launcher window.



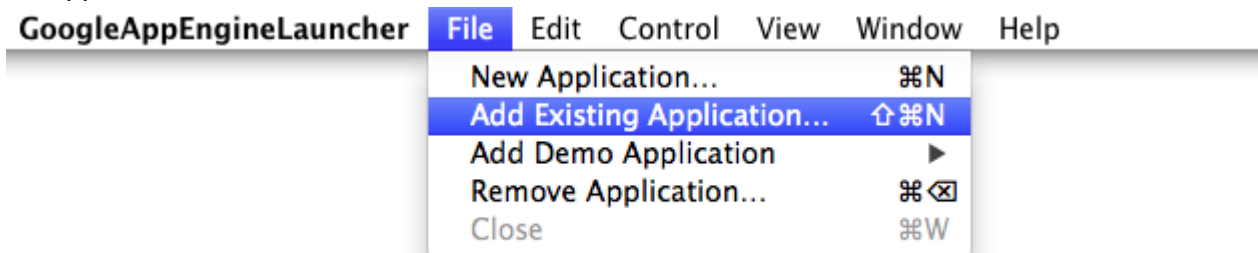
first

This

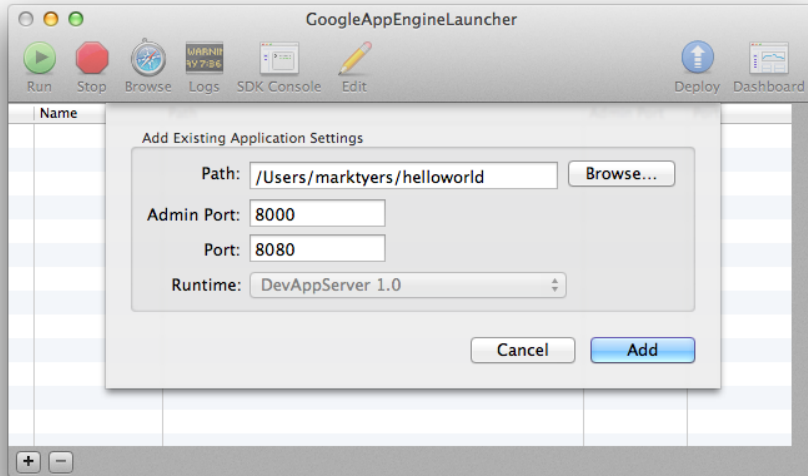


To remove the project, select the row containing your project and click on the [-] button located towards the left edge of the status bar. You will be presented with a dialog box to confirm the files will not be deleted.

If you now open the folder on your computer that contains your project files you will see that they are still there! Time to add them back into the launcher. To do this choose 'Add Existing Application' from the File menu.



Simply browse to the application folder and this will load it into the App Engine Launcher



Deploying to Google Cloud

All the development so far has been on your computer. If others are to use your app you will need to deploy it online. Luckily Google make this process really easy. Start by accessing your Google Dashboard at:

<https://appengine.google.com/>

Click on the Create Application button.

My Applications

<div> <div>Prev 20</div> <div>1-2 of 2</div> <div>Next 20</div> </div>			
Application	Title	Storage Scheme	Status
bookshopis	bookshop	High Replication	Disabled by developer ?
marktyers	Hello World	High Replication	Running ?
<div> <div>Create Application</div> <div>You have 24 applications remaining.</div> </div>			
<div> <div>Prev 20</div> <div>1-2 of 2</div> <div>Next 20</div> </div>			

Create an Application

You have 24 applications remaining.

Application Identifier:

.appspot.com

All Google account names and certain offensive or trademarked names may not be used as Application Identifiers. You can map this application to your own domain later. [Learn more](#)

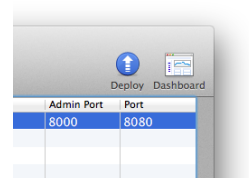
Application Title:

Displayed when users access your application.

You need to create a unique application identifier. This will be used to identify your application and will form part of its URL. You may need to try several different ones until you find one that is not already in use.

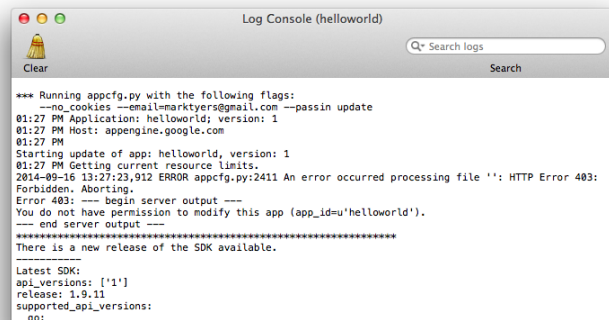
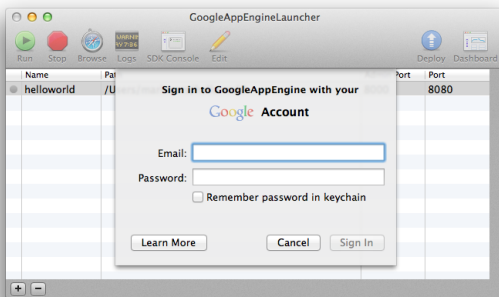
Once you have entered a suitable identifier and a title (to appear in the page title) click 'Create Application'.

Deploying The Application



Deployment is done using the 'Deploy' button in the App Engine Launcher toolbar.

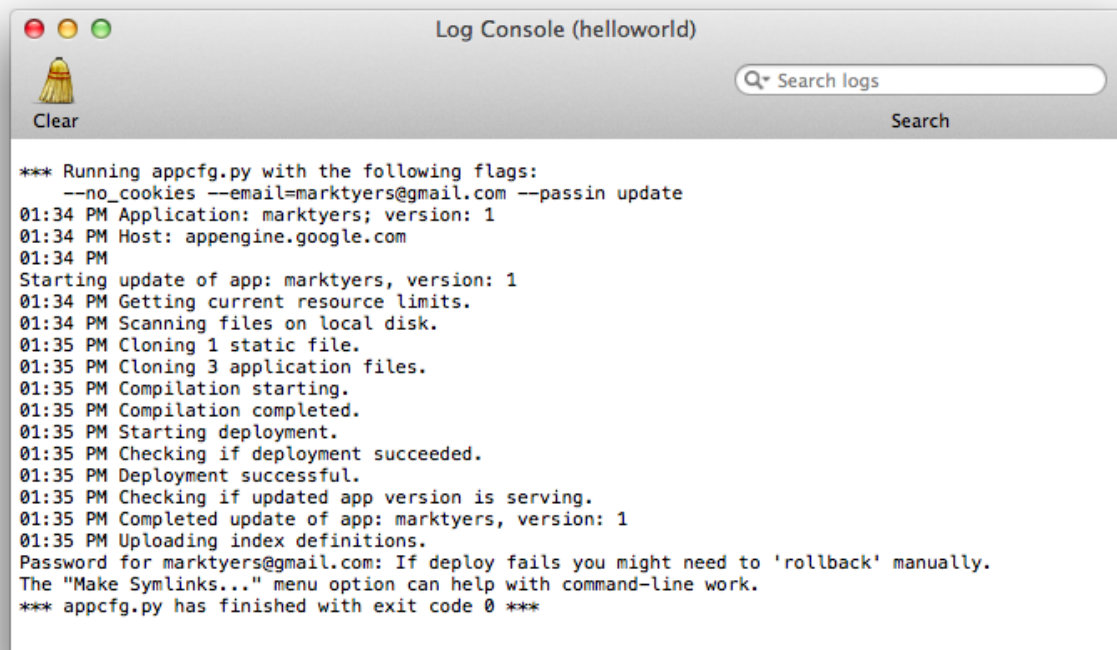
This will prompt you to enter your Google credentials.



At this point it will try to upload your application, but this will fail. To understand why you need to read the Console Log messages carefully...

We named our app helloworld however the app identifier we used on the cloud is different. To correct this error all we need to do is edit the app.yaml and substitute the app identifier for helloworld.

```
application: marktyers
version: 1
runtime: python27
api_version: 1
threadsafe: yes
```



Challenge

NOTE: You should not attempt this until you have finished the worksheet and understood the theory behind this. Your lecturer may talk through this or you may be required to watch a short video.

Normally you would be expected to carry out a challenge based on both the practical experiences and the theory you have learned however this will not be required for this first week.