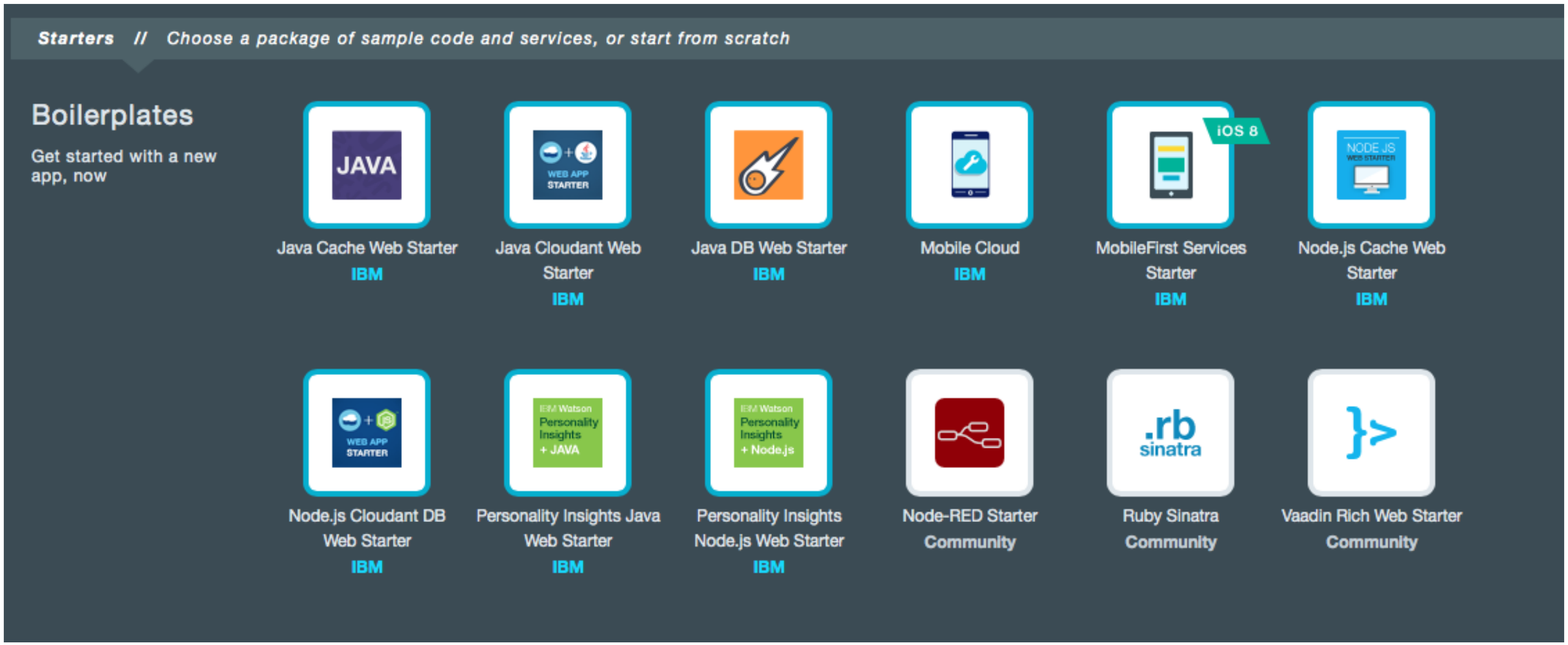
Module 3: Boilerplate applications

Deploying your first application

Boilerplates

- Provide a fast way to get an application stated
- Package of sample application code and services



Environment Variables

- Bluemix sets environment variables when deploying an application to inform the application about the environment it is running in.
  - Application may need to use this information to set configuration – such as the hostname and port to listen for incoming requests.
  - VCAP_APP_HOST – specifies the hostname on which your application should listen
  - VCAP_APP_PORT – specifies the port number on which your application should listen
- You can also define custom environment variables to provide configuration to your application

Manifest file

- Allows you to specify the parameters for an application deployment
- manifest.yml file is used at deploy time if found in directory application is being pushed from

```
---
applications:
- name: bluemix-todo-node
  host: bluemix-todo-node-${random-word}
  command: node app.js
  memory: 128M
services:
- todo-db
```

```
---
applications:
- name: Myphpmyadmin
  memory: 128M
  instances: 1
  host: Myphpmyadmin
  path: .
  buildpack: https://github.com/dmikusa-pivotal/cf-php-build-pack.git
  services:
  - mysql_BlueMixLab
```

http://docs.cloudfoundry.org/devguide/deploy-apps/manifest.html

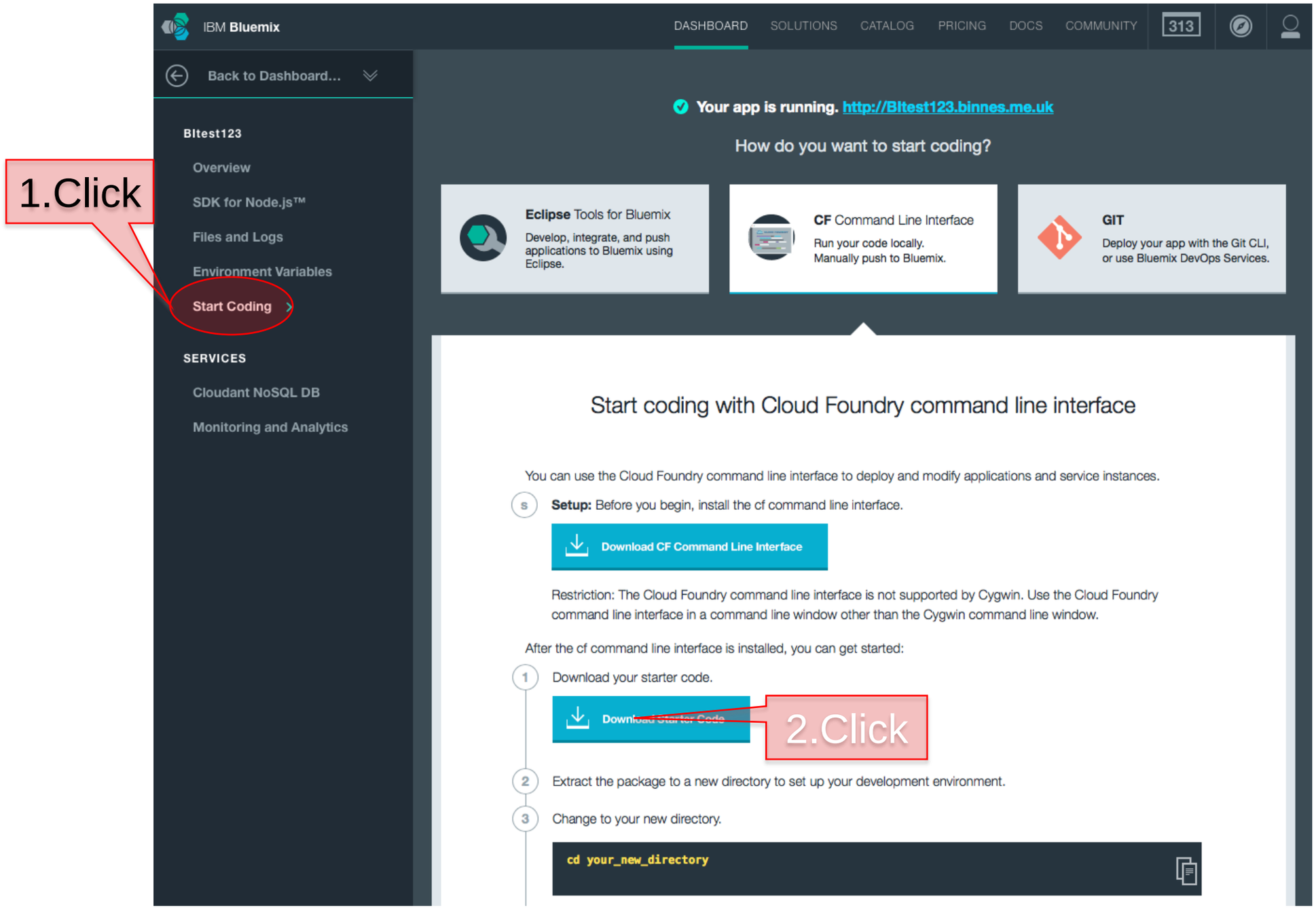
.cfignore

- When you push an application all content of the current directory and all sub directories are pushed to the server – this is not the behavior you always want
- .cfignore allows control of what is sent to the server by listing the files and directories you do not want to send to the server
- Sample .cfignore file:

```
.git
node_modules
tmp
lib-src
```

Accessing sample code

- Sample code for the application is available to download after a runtime or boilerplate has been deployed.



Command-line interface

- Bluemix uses the Cloud Foundry command-line interface (CLI): `cf`
- `cf help` provides help page showing all the commands
- `cf help <command>` provides help for specific command

`cf l`	login	**`cf ds`**	delete service
`cf t`	target space or organization	**`cf bs`**	bind service to application
`cf a`	list apps in current space	**`cf st`**	start app
`cf app`	display status for specific app in current space	**`cf sp`**	stop app
`cf p`	push (deploy or update) app	**`cf d`**	delete app
`cf s`	show service info	**`cf scale`**	scale app
`cf cs`	create service	**`cf logs`**	tail or show logs for app

Sample cf commands

To log in to Bluemix:

```
cf l -a https://api.ng.bluemix.net -u <email> -p <password> -o <email> -s dev
cf l -a https://api.eu-gb.bluemix.net -u <email> -p <password> -o <email> -s dev
```

- This command will log in to Bluemix, set the organization to the user's own organization, and the space to dev

To check what space you are logged into or to change the space:

```
cf t
cf t -s test
```

- The first option prints the current target organization and space.
- The second option switches to the test space.

To check what spaces exist in an organization:

```
cf spaces
```

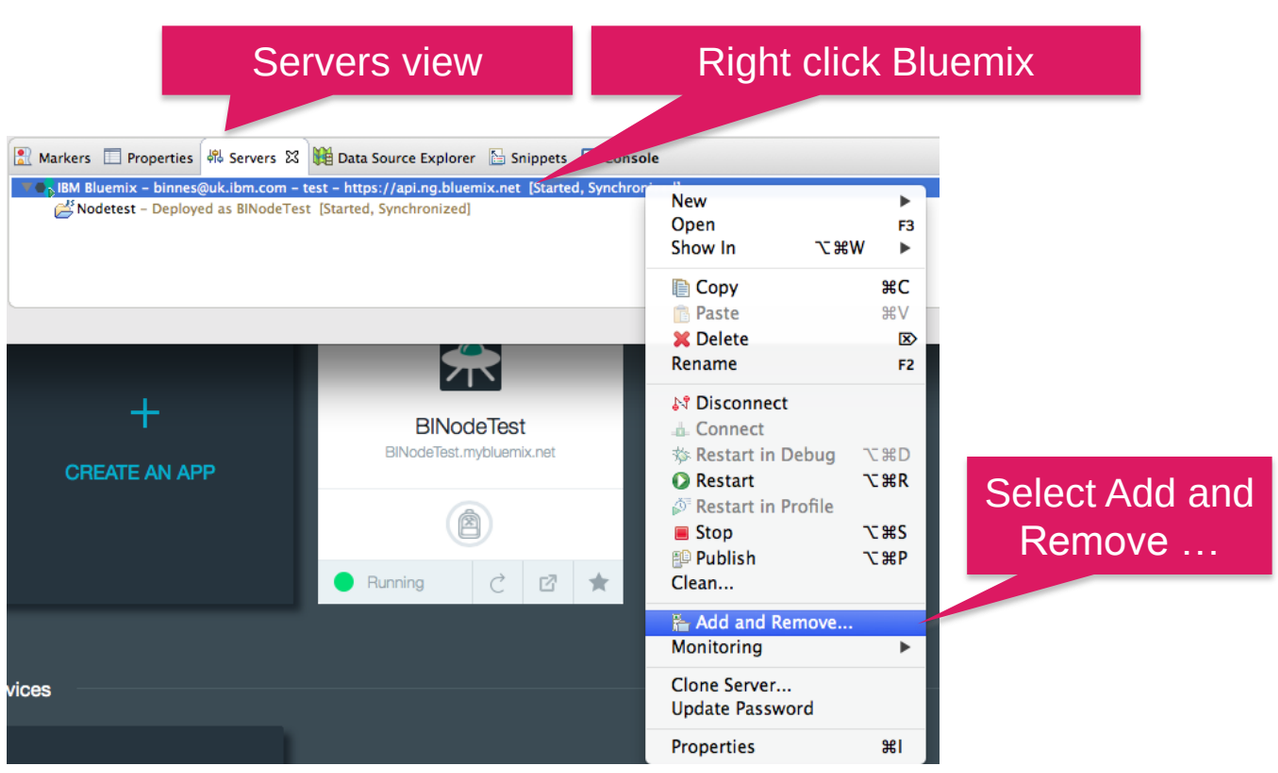
- Displays the spaces available in the current organization.

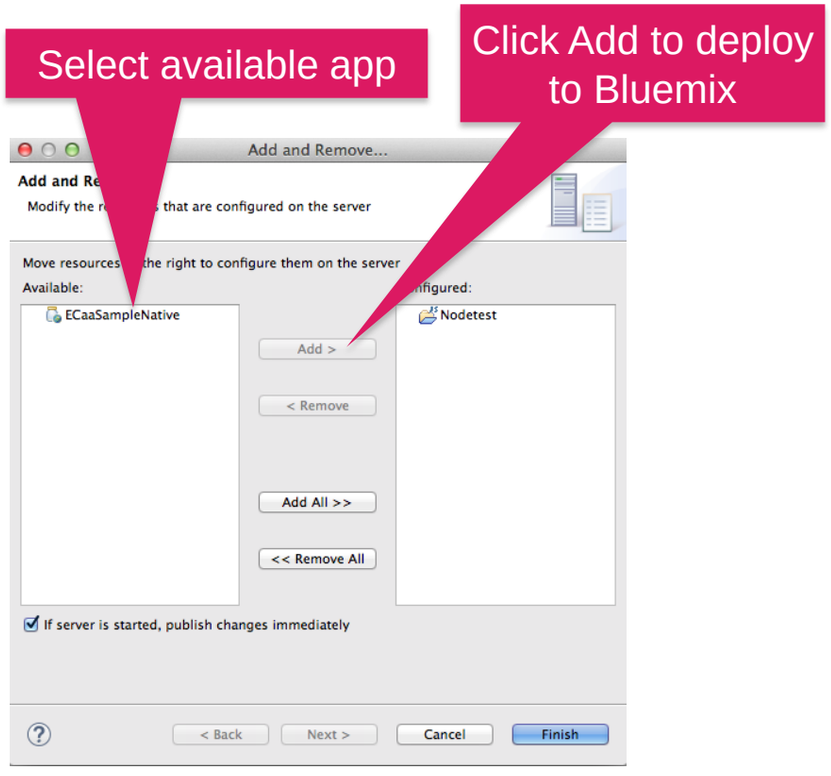
```
cf space dev
```

- Displays information about the dev space in the current organization.

Eclipse plug-in for Bluemix

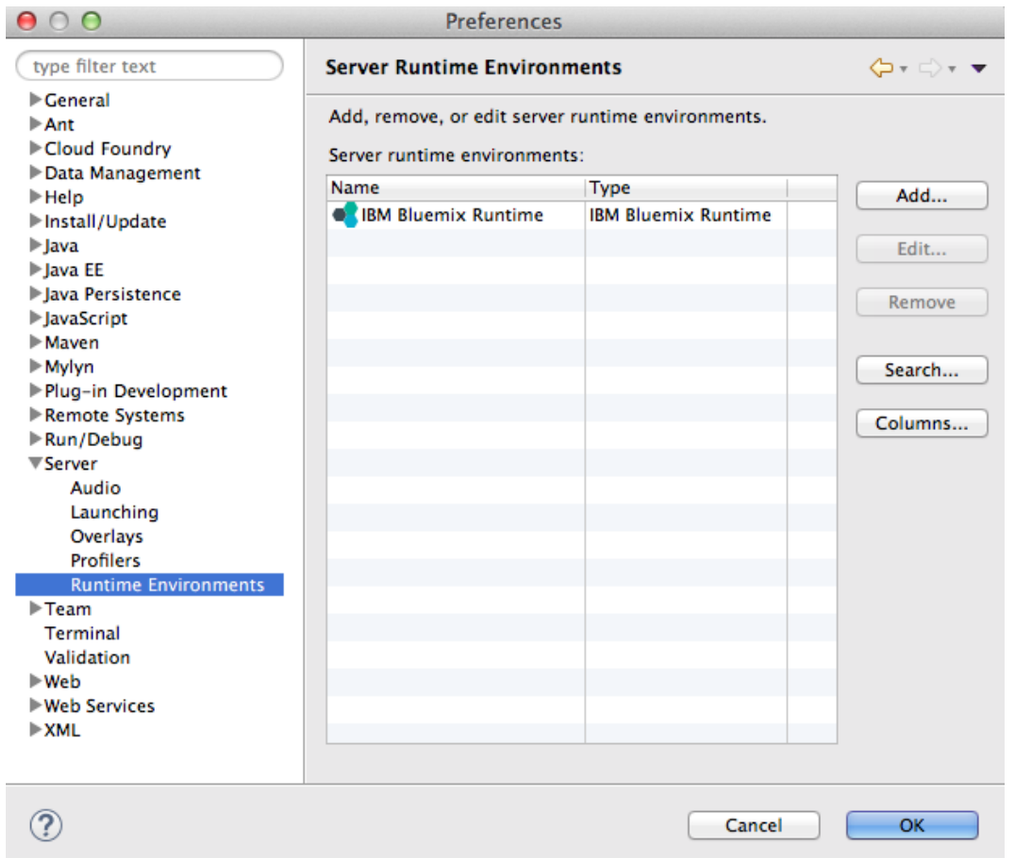
- Available in the Eclipse marketplace
- Enables developers to develop in Eclipse and then deploy to Bluemix
  - Java and JavaScript are supported

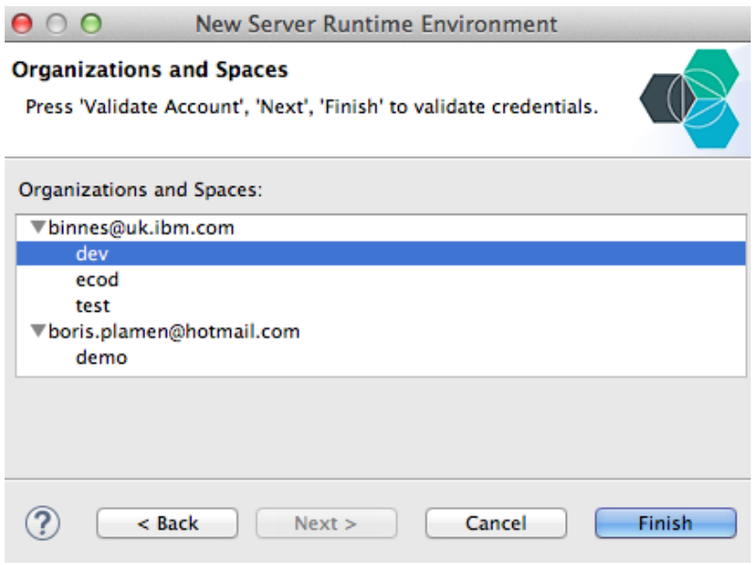


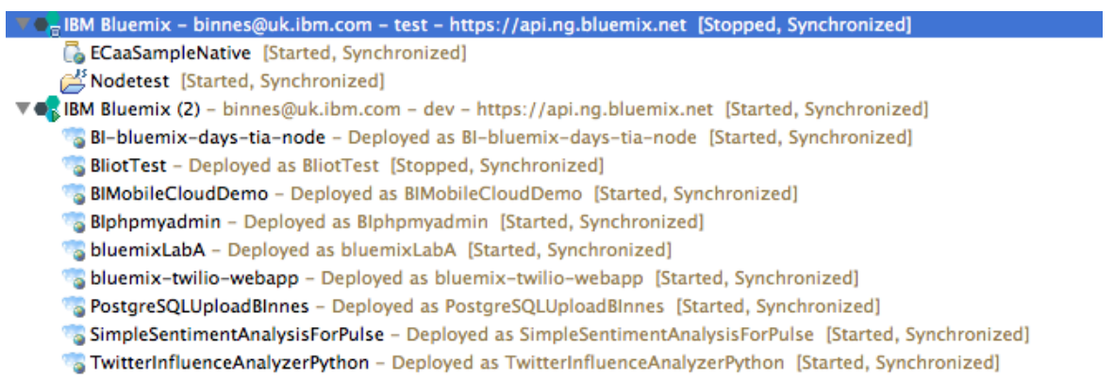


Define your Bluemix server connection in Eclipse

- In Eclipse preferences, select **Server** then **Runtime Environments.**
- Add a server definition for each Bluemix space that you want to deploy to.



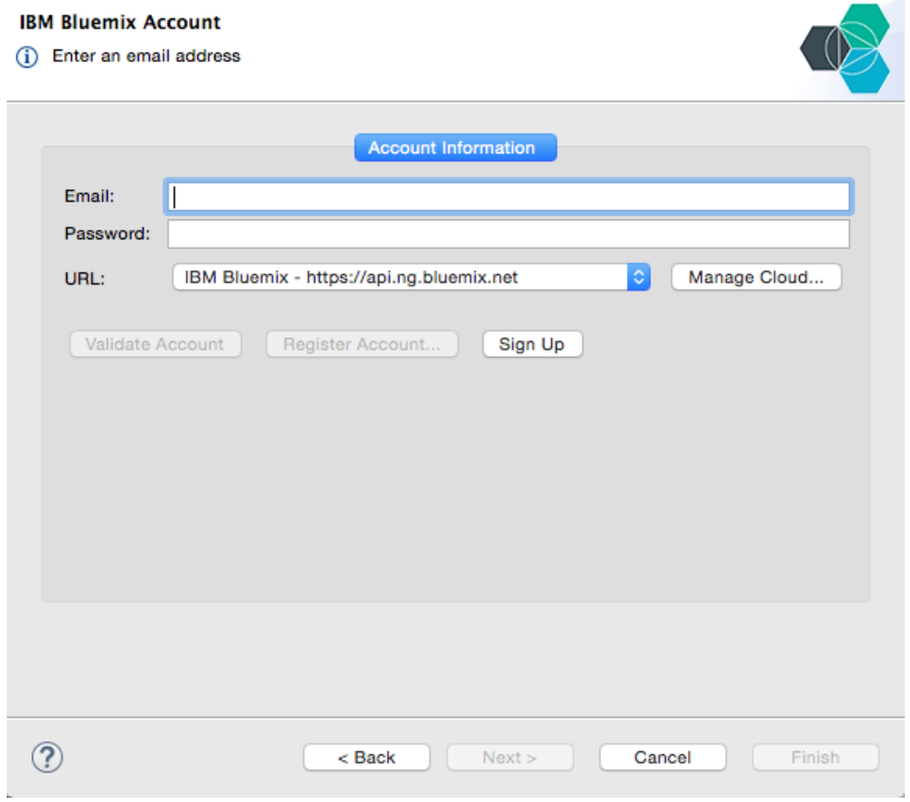


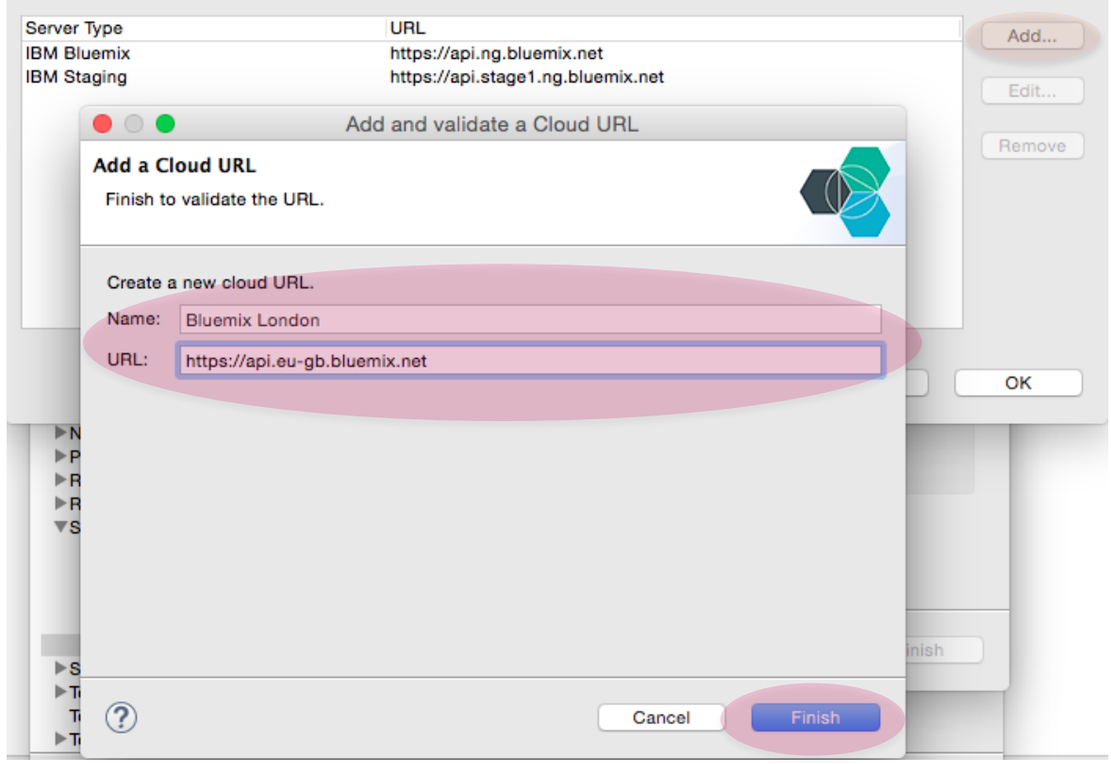


Adding additional Bluemix regions to Eclipse

1. Click **Manage Cloud** from the **Add Bluemix Account** dialog box.
2. Click **Add** to add an additional Bluemix cloud
3. Enter the details of the Bluemix region by providing the name and endpoint URL
4. Click **Finish**.

For more information about region endpoint URLs, see:
https://www.ng.bluemix.net/docs/#overview/overview.html#ov_intro__reg





Summary

- Bluemix provides a number of options for developing applications giving you the ability to integrate Bluemix into the developer tools of your choice
- Bluemix provides starter packs to get you up and running quickly
- Start applications from scratch