



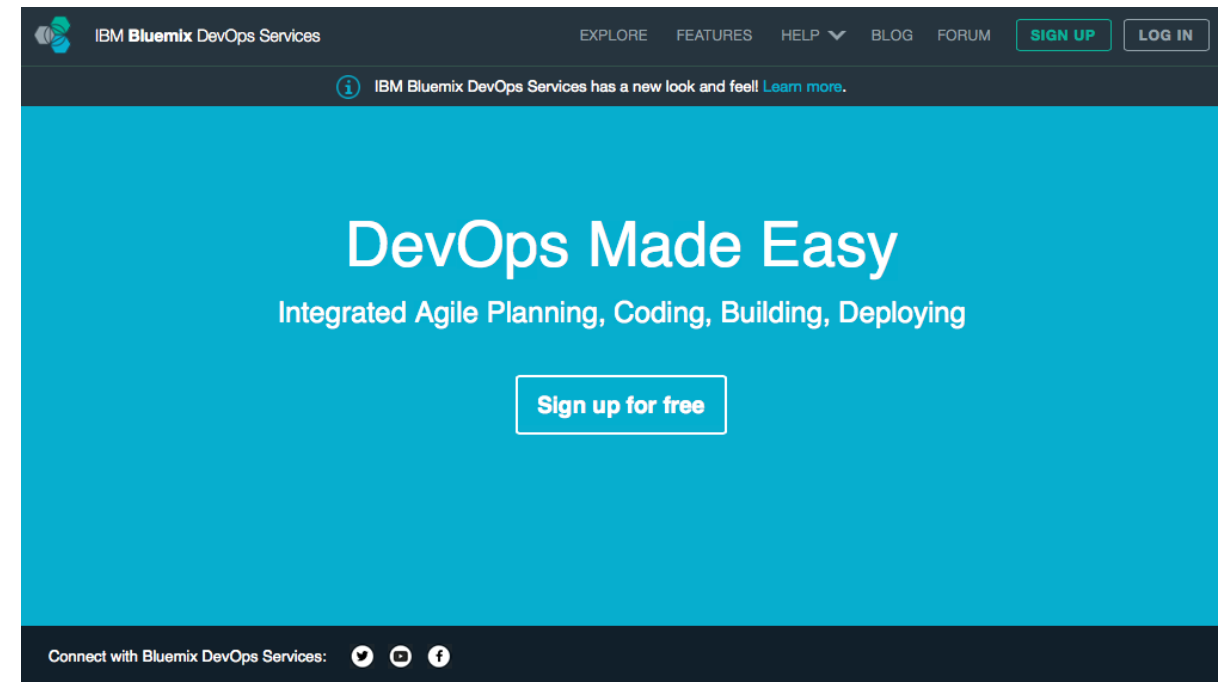
# **Module 4: DevOps and Bluemix**

## **Overview of DevOps services and app development**

# IBM Bluemix DevOps services

*An open, integrated rapid development experience that scales*

- **A Premier DevOps service for IBM Cloud platform**
  - Promotes incremental frictionless adoption of DevOps services for Bluemix
- **An integrated developer experience**
  - End-to-end DevOps solution in the cloud for developing applications
  - Integrated task tracking, agile planning, source control with autodeploy
  - Complementary mobile quality and application performance monitoring
  - Use your favorite tools or work from the web IDE
  - Free public and fee-based private projects
- **Scalable, secure, enterprise-ready**
  - Runs on SoftLayer infrastructure



We bring the tools. You bring the code.



# DevOps Services available today



## Easy Access

Get started for free. With Git hosting and the built-in Web IDE, it's zero to code in seconds.



## Code Now

Use the built-in Web IDE, Eclipse, Visual Studio, or your tool of choice.



## Build & Deploy

Automatically build and deploy your application to IBM's cloud platform, Bluemix.



## Team Collaboration

Share your work and collaborate through expert tools for Agile Development.

# Get productive with Bluemix DevOps services in minutes

- Register at [www.jazzhub.com](http://www.jazzhub.com)
- **Answer a few questions**
  - Which Source Code Management (SCM) - Git, GitHub, Jazz SCM?
  - Do you want your project to be public or private?
  - Do you want to practice agile software development?
  - Do you want to deploy on IBM Bluemix?
- **Start coding**

## Create a project

binnes |

URL: <https://hub.jazz.net/project/binnes/>

Choose where your code will be (required)



Use Jazz SCM



Create a Git repository

or



Connect to an external  
GitHub repository

☐ Private

By default, projects are public. Select this to make it private so that you can share with project members only. [Learn more](#)

☒ Add features for Scrum development (This option can only be added at project creation time.)

Select this if you're familiar with Scrum and plan to deliver software on regular sprints. [i](#)

☐ Make this a Bluemix Project

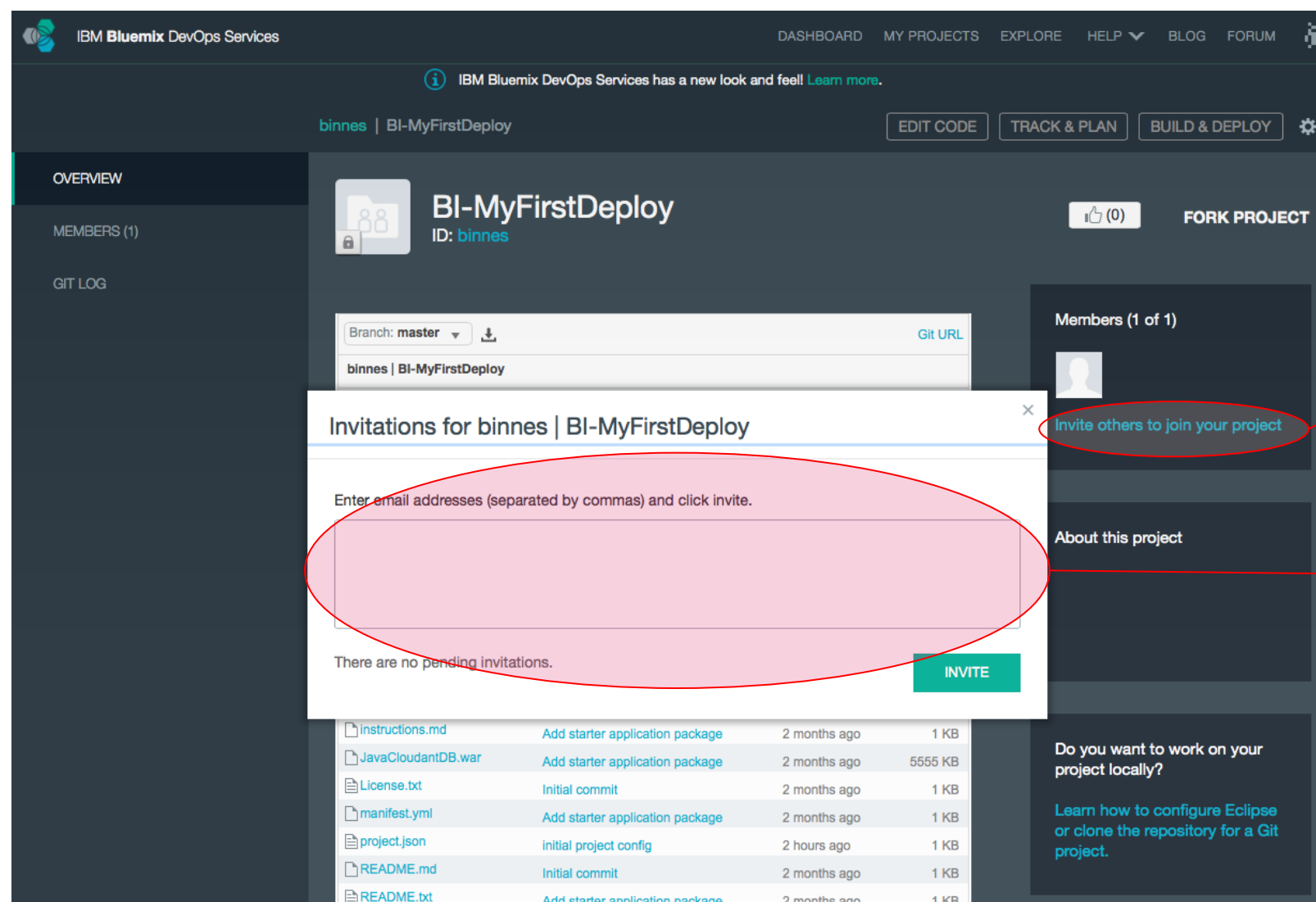
Select this if you want to deploy your application to the IBM Bluemix cloud platform. [Find out how](#) [i](#)

CANCEL

CREATE

# Collaborate seamlessly on public or private projects

- Easily invite team members
- Access from anywhere
- Built for collaboration from the ground up
- Choose who sees your project and how you engage with broader communities

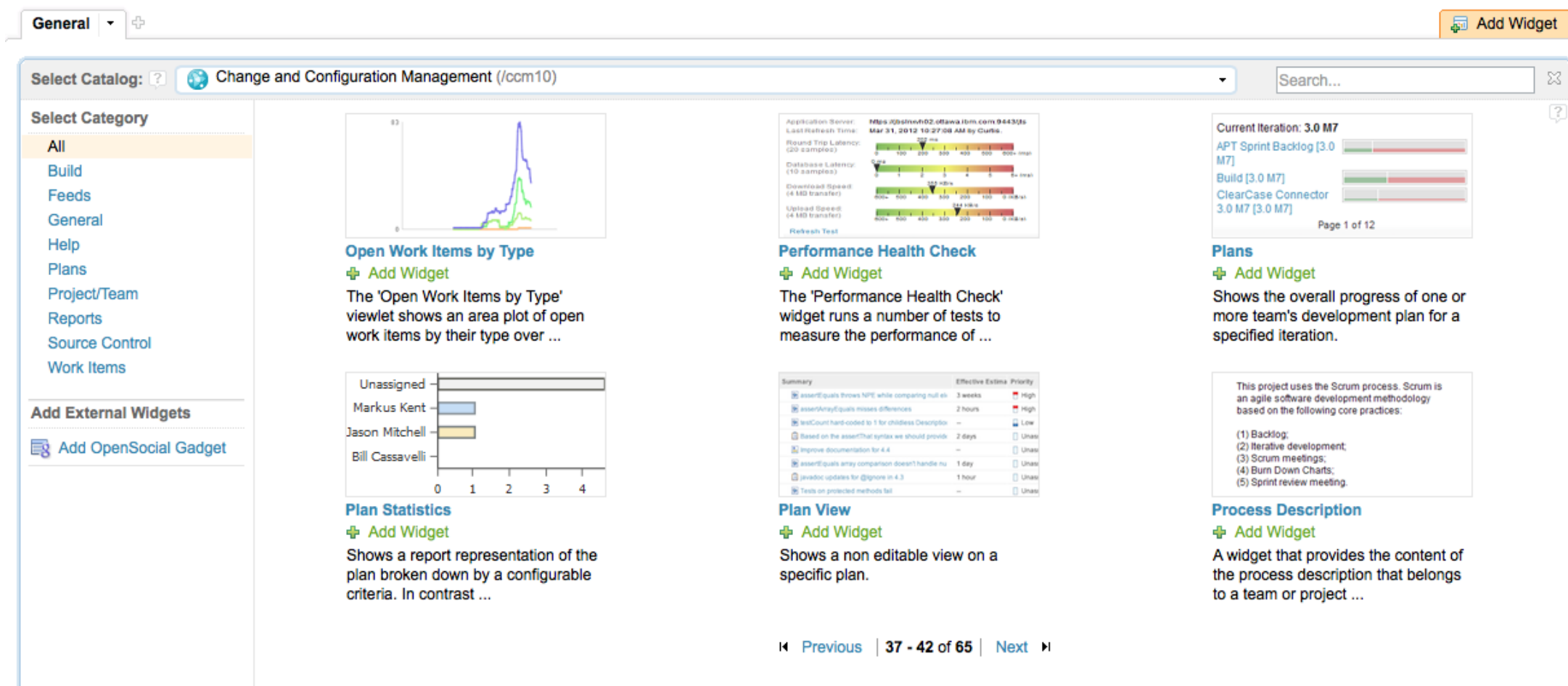


Invite other people to your project

Enter a comma separated list of email addresses

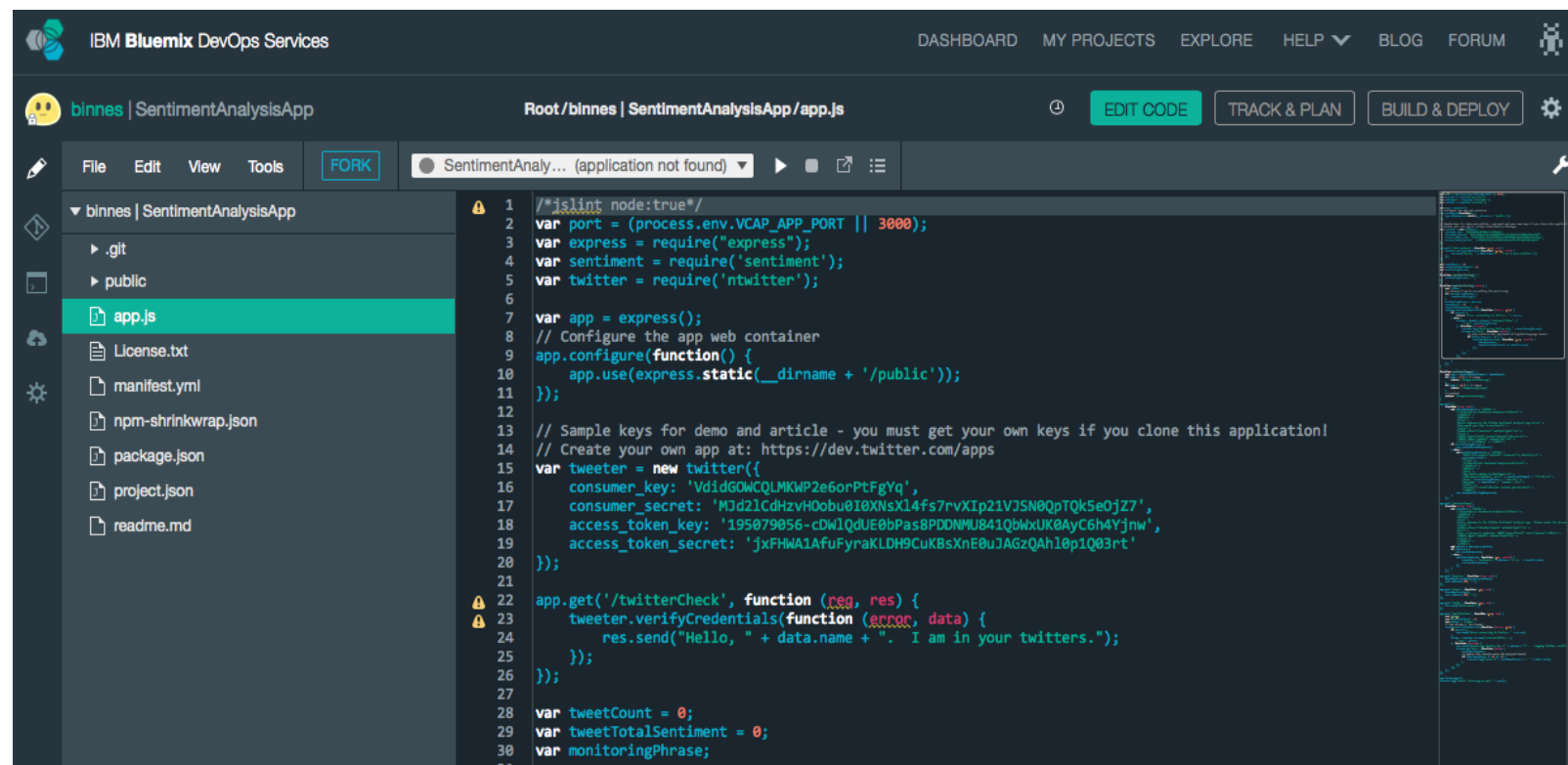
# Agile development in the cloud is easy with Bluemix DevOps services

- Built-in agile process support
- Work items to track and plan project activities
- Agile tools for the product backlog, releases, and sprints
- Dashboard charts for project status

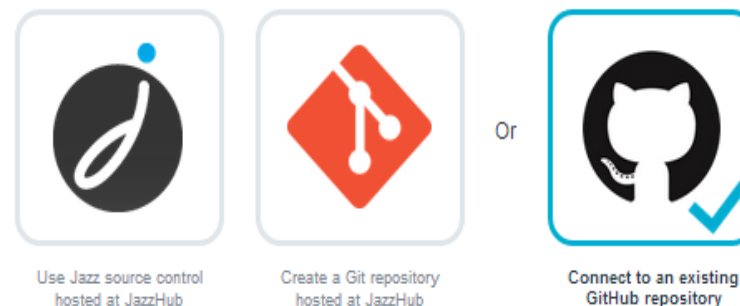


# Choose how you code with Bluemix DevOps services

- Browser-based integrated development environment
- Full support for local development with Eclipse or Visual Studio
- Built-in support for Jazz Source Control
- Hosted Git repository
- Got GitHub? No problem



Choose where your code will be



Copy and paste URL (<https://github.com/username/project-name.git>)



# Live Sync for Node.js

- Enables Node.JS code changes to be pushed live without the need to redeploy the application
- Available in IBM Bluemix DevOps services as the Live Edit feature  
(Chrome browser only for debug)
- Available on Microsoft Windows and Applied OS X platforms from the command line using the Live Sync CLI

The screenshot displays the IBM Bluemix DevOps Services interface. At the top, the 'IBM Bluemix DevOps Services' header is visible. Below it, a toolbar shows 'File', 'Edit', 'View', and 'Tools' menus. A dropdown menu indicates 'BI-TestApp-4 (running: live edit)'. To the right, there are icons for running, stopping, and refreshing, along with a 'Live Edit' toggle switch that is currently turned on.

Below the toolbar, the 'IBM Bluemix Developer Console' section is shown. It contains the text: 'You are now managing the runtime (process) of your app. To manage your project, visit your [app dashboard](#).' Below this, the application name 'BI-TestApp-4' is displayed, followed by the route 'Route: [BI-TestApp-4.eu-gb.mybluemix.net](#)'. A status indicator shows a green checkmark and the text 'Your app is running.' To the right of this are 'SUSPEND' and 'RESTART' buttons.

Below the status section, there are two buttons: 'Open Shell' and 'Open Debugger', each with a right-pointing arrow icon.

At the bottom of the screenshot, a code editor window is open, showing the 'app.js' file. The code is as follows:

```
1 (function (exports, require, module, __file__){
2
3   /*
4    * GET home page.
5    */
6   exports.index = function(req, res){
7     res.render('index');
8   };
9 }
10
```

The code editor also shows a file explorer on the left with the following structure:

- file://
  - home/vcap/app
    - node\_modules
    - public/js
    - routes
      - cache.js
      - index.js
    - vendor/node/lib/node\_mod
      - app.js
      - wxs.js

On the right side of the code editor, there is a 'Watch Expressions' panel. It shows a list of expressions being watched, including 'exports.index', 'callbacks', 'param', 'pass', 'Router.\_dispatch', 'router', 'next', 'methodOverride', 'methodOverride.js:37', 'next', 'multipart', '(anonymous function)', 'urlencoded', '(anonymous function)', 'json', 'bodyParser', 'next', 'logger', 'next', 'favicon', and 'next'.

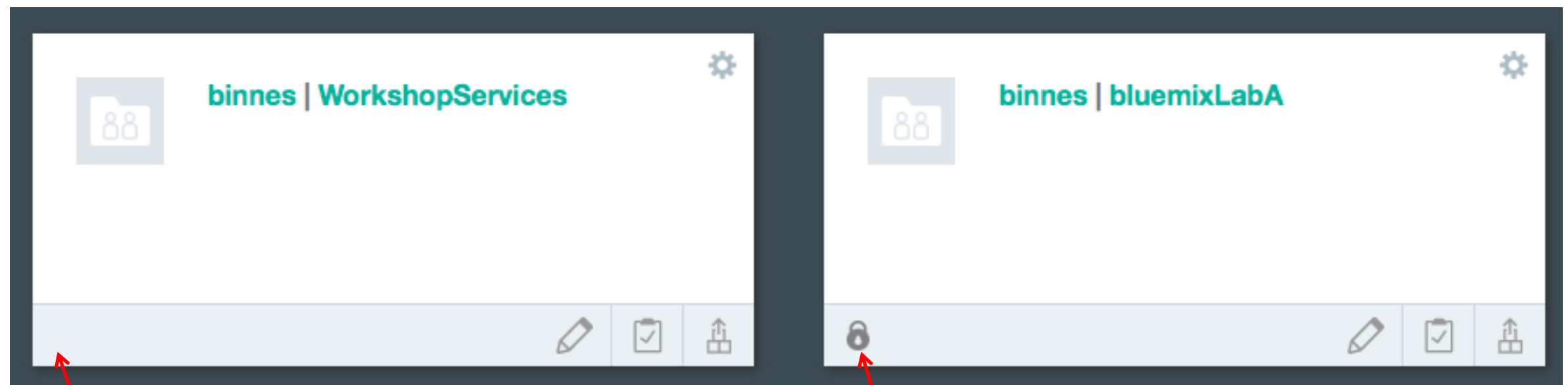


# Leverage the power of social coding

With public projects, it's easy to learn and share work with a broader audience.

☐ Private

By default, projects are public. Select this to make it private so that you can share with project members only. [Learn more](#)



**Public**

**Private**

# Summary

- IBM Bluemix DevOps Services:
  - Provides an online set of tooling to plan, manage, develop, and deploy your application
  - Can use the build in code repository or choose to use Git Hub
  - Allows developers to collaborate on a project
  - Allows developers to work online or locally on the same project