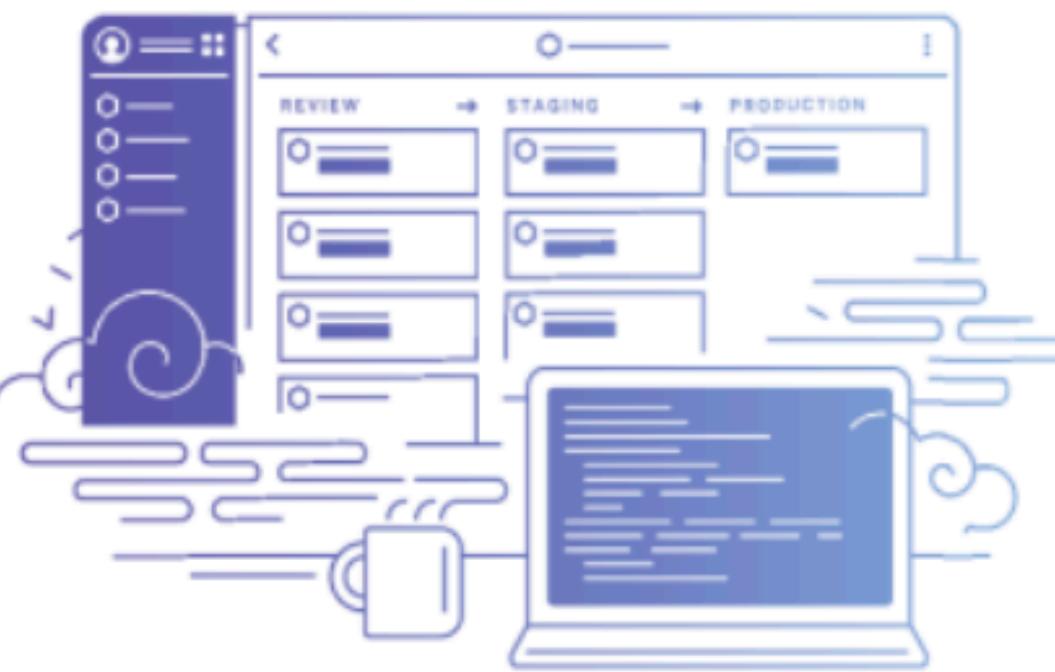


Deployment

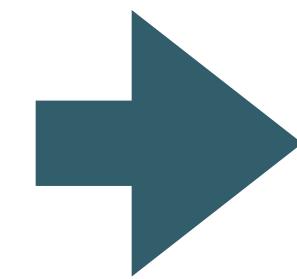
Lab-12c
Deploy



Deploy a Play Application to
the cloud

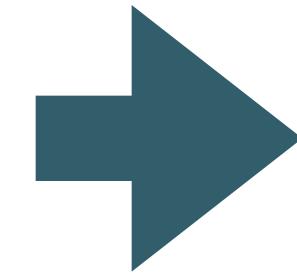
Application runs in 2 Modes

Development Mode



Application runs on
developer workstation.
Accessible locally

Production Mode



Application runs on
cloud server.
Accessible globally

Development Mode

The screenshot shows an IDE interface with the following components:

- Project View:** Shows the project structure for "todolist". The "Dashboard" class under "controllers" is selected.
- Code Editor:** Displays the `Dashboard.java` file. The code implements a `Dashboard` controller with methods for rendering the dashboard, adding todos, and deleting todos.
- Terminal:** Shows the command `play run` being entered.
- Output Terminal:** Displays the Play! framework startup logs, indicating it's running on port 9000 in DEV mode.
- Browser Preview:** Shows the application running at `localhost:9000/dashboard`. The page title is "Dashboard". It displays a todo list titled "homer simpson's Todo List" with two items: "Make tea" and "Go for snooze", each with a "Delete" button. There is also a form to add a new todo.
- Text Overlay:** A large blue arrow points upwards from the browser preview towards the terminal output, with the text "Application running on http://localhost:9000" overlaid on the arrow.

Development Mode

The screenshot illustrates the development environment for a Play Framework application named 'todolist'. The application structure is shown in the Project view:

- Project:** todolist
- app/controllers:** Dashboard.java
- app/controllers:** About, Accounts, Admin, Dashboard, Start
- conf:** application.conf, data.yml, dependencies.yml, messages, routes
- public:** test, tmp, .gitignore, todolist.iml, todolist.ipr, todolist.iws

The `Dashboard.java` file contains the following code:

```
package controllers;
import ...
public class Dashboard extends Controller
{
    public static void index()
    {
        Logger.info( message: "Rendering Dashboard");
        Member member = Accounts.getLoggedInMember();
        List<Todo> todolist = member.todolist;
        render( ...args: "dashboard.html", member, todolist);
    }

    public static void addTodo(String title)
    {
        Member member = Accounts.getLoggedInMember();
        Todo todo = new Todo(title);
        member.todolist.add(todo);
        member.save();
        Logger.info( message: "Adding Todo" + title);
        redirect( url: "/dashboard");
    }

    public static void deleteTodo(Long id, Long todoid)
    {
        Member member = Member.findById(id);
        Todo todo = Todo.findById(todoid);
        member.todolist.remove(todo);
        member.save();
        todo.delete();
        Logger.info( message: "Deleting " + todo.title);
        redirect( url: "/dashboard");
    }
}
```

The Terminal window shows the command `play run` being entered, and the output indicates the application is running on port 9000.

The H2 Console window displays the database schema:

- Tables: member, member_todo, todo
- Schemas: information_schema, Sequences
- Users: H2 1.4.196 (2017-06-10)

Important Commands

?	Displays this Help Page
Ctrl+Enter	Shows the Command History
Ctrl+Enter	Executes the current SQL statement
Shift+Enter	Executes the SQL statement defined by the text selection
Ctrl+Space	Auto complete
Ctrl+Shift+D	Disconnects from the database

Sample SQL Script

Delete the table if it exists	DROP TABLE IF EXISTS TEST;
Create a new table with ID and NAME columns	CREATE TABLE TEST(ID INT PRIMARY KEY, NAME VARCHAR(255));
Add a new row	INSERT INTO TEST VALUES(1, 'Hello');
Add another row	INSERT INTO TEST VALUES(2, 'World');
Query the table	SELECT * FROM TEST ORDER BY ID;
Change data in a row	UPDATE TEST SET NAME='Hi' WHERE ID=1;
Remove a row	DELETE FROM TEST WHERE ID=2;
Help	HELP ...

Adding Database Drivers

Additional database drivers can be registered by adding the Jar file location of the driver to the environment variables H2DRIVERS or CLASSPATH. Example (Windows): to add the database driver library C:/Programs/hsqldb/lib/hsqldb.jar, set the environment variable H2DRIVERS to C:/Programs/hsqldb/lib/hsqldb.jar.

Database visible on <http://localhost:9000/@db>

Database visible on
<http://localhost:9000/@db>

Production Mode

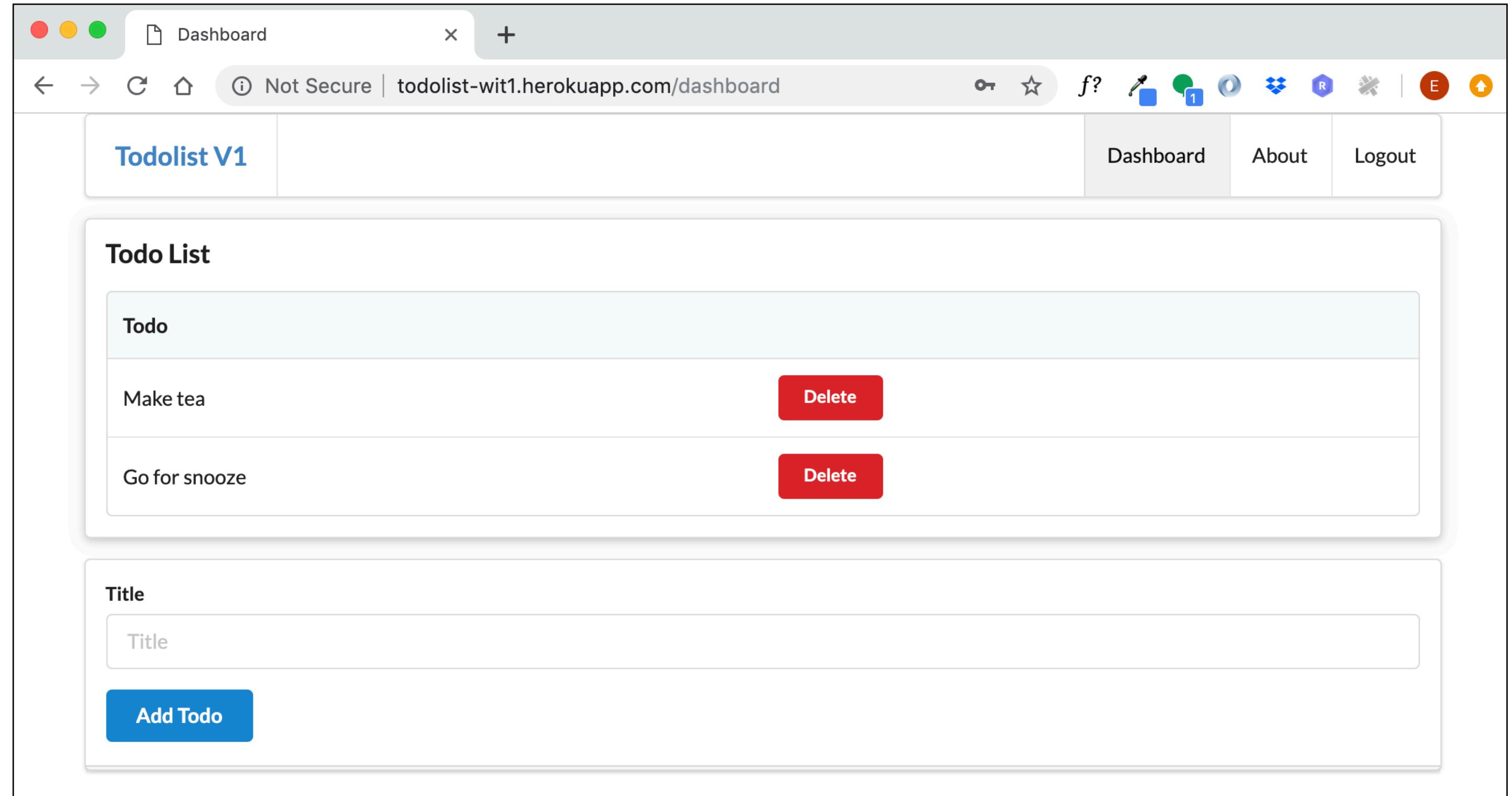
Deploy a GitHub branch

This will deploy the current state of the branch you specify below. [Learn more.](#)

Choose a branch to deploy

 master

[Deploy Branch](#)



Dashboard

Not Secure | todolist-wit1.herokuapp.com/dashboard

Todolist V1

Dashboard About Logout

Todo List

Todo

Make tea [Delete](#)

Go for snooze [Delete](#)

Title

Title

[Add Todo](#)

Application running on
<http://todolist-wit1.herokuapp.com>

Production Mode

The screenshot shows the Adminium dashboard for the application 'todolist-wit1'. The left sidebar includes sections for Personal, GitHub (wit-hdip-comp-sci-2019/todolist-versioned), Overview, Resources, Deploy, Metrics, Activity, Access, Settings, Free Dynos (Change Dyno Type), Add-ons (Adminium, Heroku Postgres), and Estimated Monthly Cost. The main area displays the database schema with three tables: member, member_todo, and todo, each with 32 KB, 24 KB, and 24 KB respectively, totaling 80 KB. The database size is 7.99 MB.

Personal > todolist-wit1

GitHub wit-hdip-comp-sci-2019/todolist-versioned

Overview Resources Deploy Metrics Activity Access Settings

Free Dynos Change Dyno Type

```
web play run --http.port=$PORT $PLAY_OPTS
```

Add-ons

Adminium Database size 7.99 MB

Heroku Postgres Attached as DATABASE

Estimated Monthly Cost

Table	Full table size	Table size	Record count
member	32 KB	8 KB	2
member_todo	24 KB	8 KB	3
todo	24 KB	8 KB	3
Totals	3 tables	80 KB	0

Add a new table

System tables: pg_stat_activity - pg_stat_statements - pg_stat_all_indexes - pg_stat_user_tables - pg_statio_user_tables - pg_statio_user_indexes

Database settings - Database bloat

The screenshot shows the Adminium dashboard for the application 'todolist-wit1'. The top navigation bar includes tabs for todolist-wit1, Jump to table (s to focus), Signed in as edeleastar@gmail.com, and a help icon. The main area displays the database schema with three tables: member, member_todo, and todo, each with 32 KB, 24 KB, and 24 KB respectively, totaling 80 KB. The database size is 7.99 MB. A note at the bottom indicates system tables and database bloat.

todolist-wit1 Jump to table (s to focus)

Signed in as edeleastar@gmail.com

Dashboard

Add widgets using the button in the top right corner.

Table	Full table size	Table size	Record count
member	32 KB	8 KB	2
member_todo	24 KB	8 KB	3
todo	24 KB	8 KB	3
Totals	3 tables	80 KB	0

Add a new table

Database size 7.99 MB

System tables: pg_stat_activity - pg_stat_statements - pg_stat_all_indexes - pg_stat_user_tables - pg_statio_user_tables - pg_statio_user_indexes

Database settings - Database bloat

Database available on
<https://www.adminium.io/dashboard>

https://en.wikipedia.org/wiki/Software_deployment

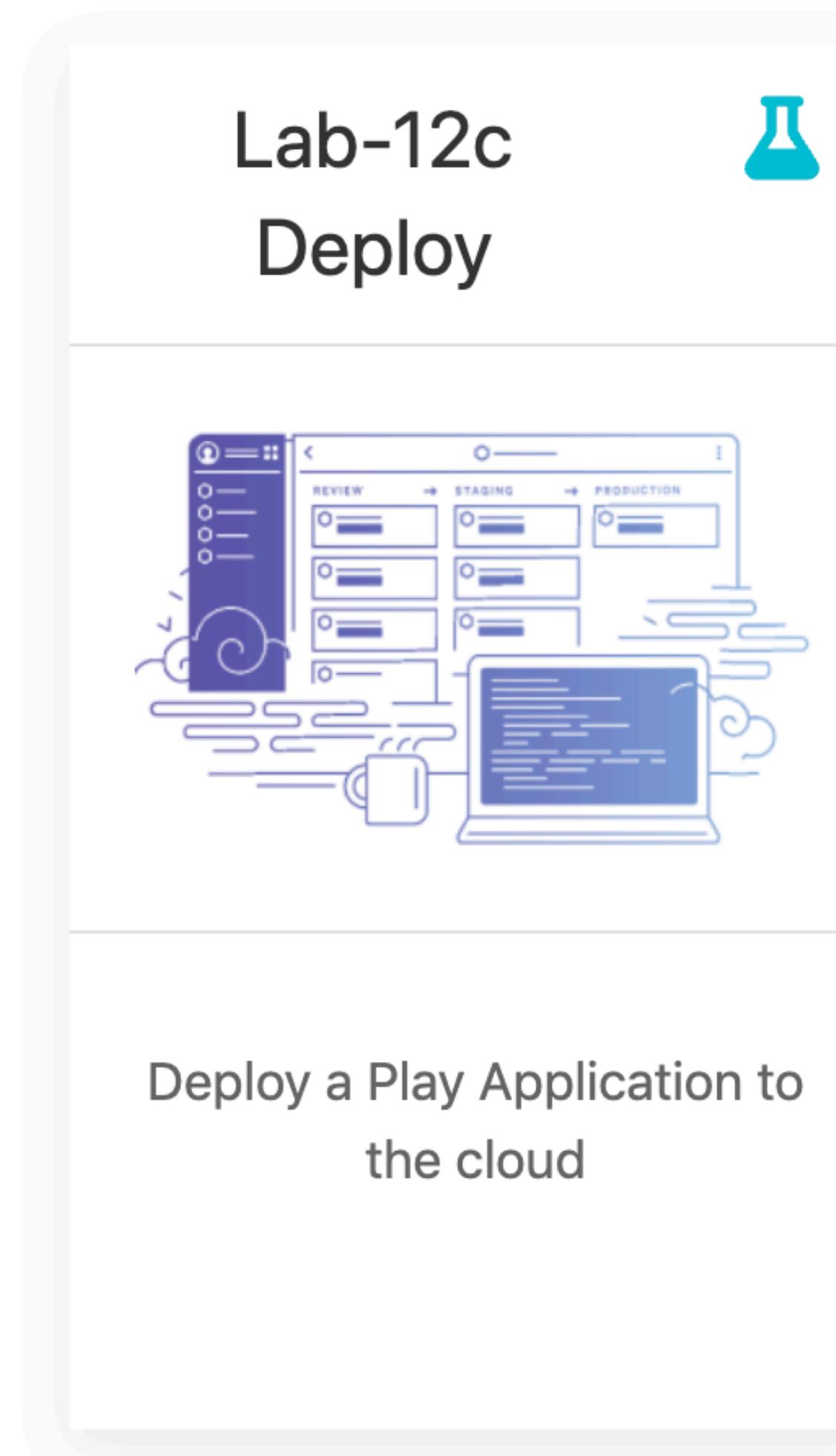
Software deployment is all of the activities that make a **software system** available for use.

The general deployment process consists of several interrelated activities with possible transitions between them.

Transition from *Development Mode* to *Production Mode*



Deploying a Play Application



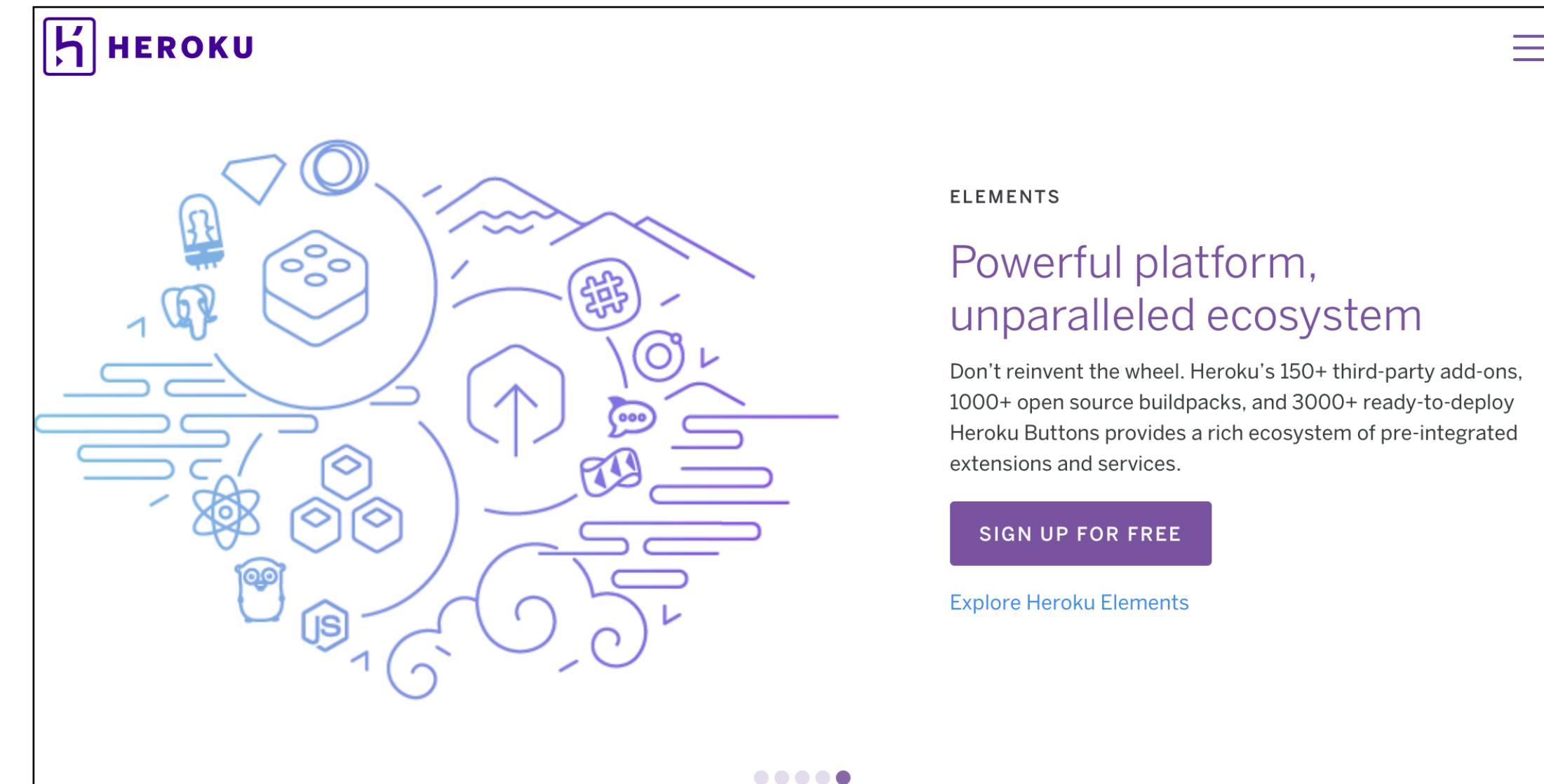
1.Configuration

2.Staging

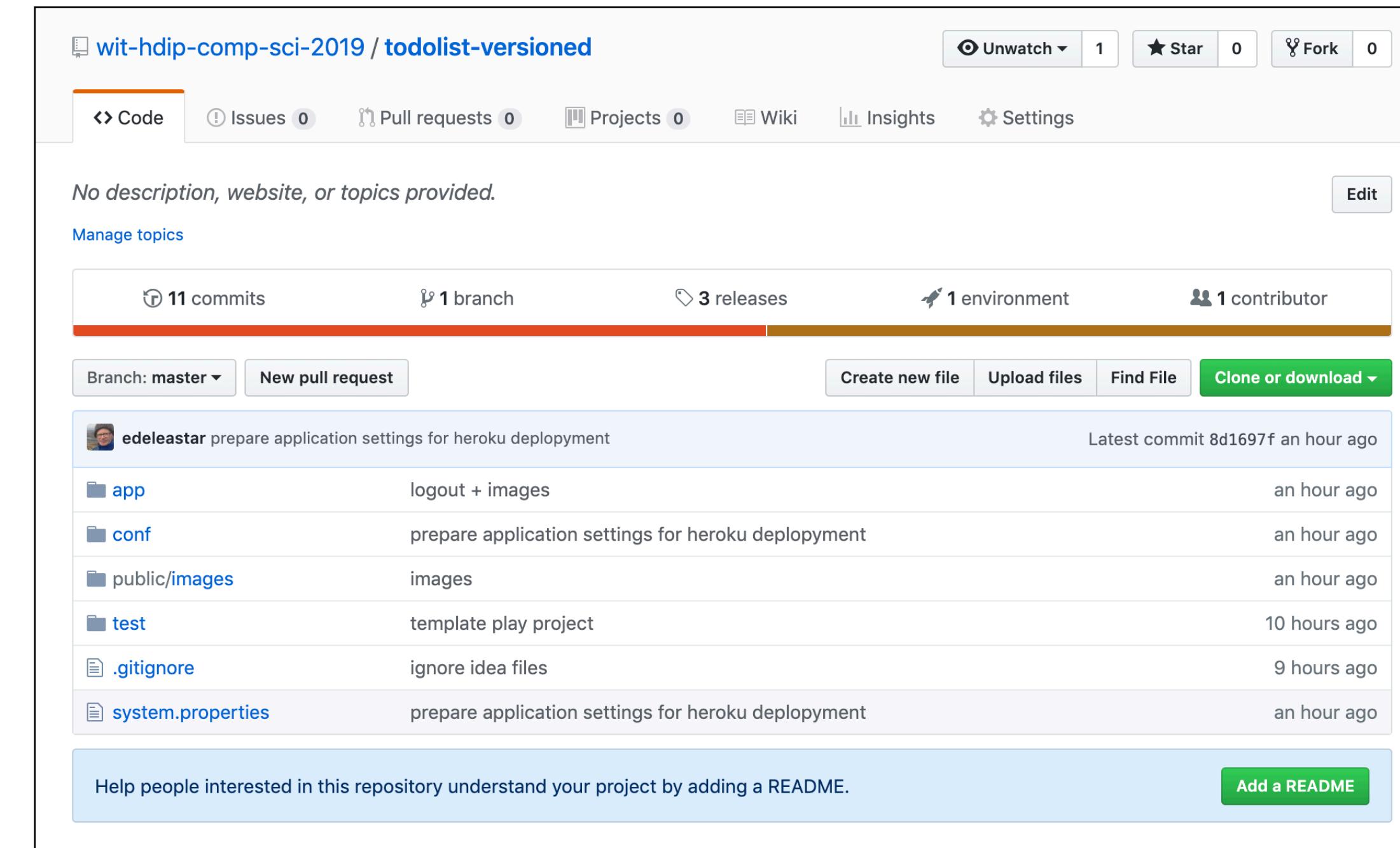
3.Deployment

Deployment: Platforms & Tools

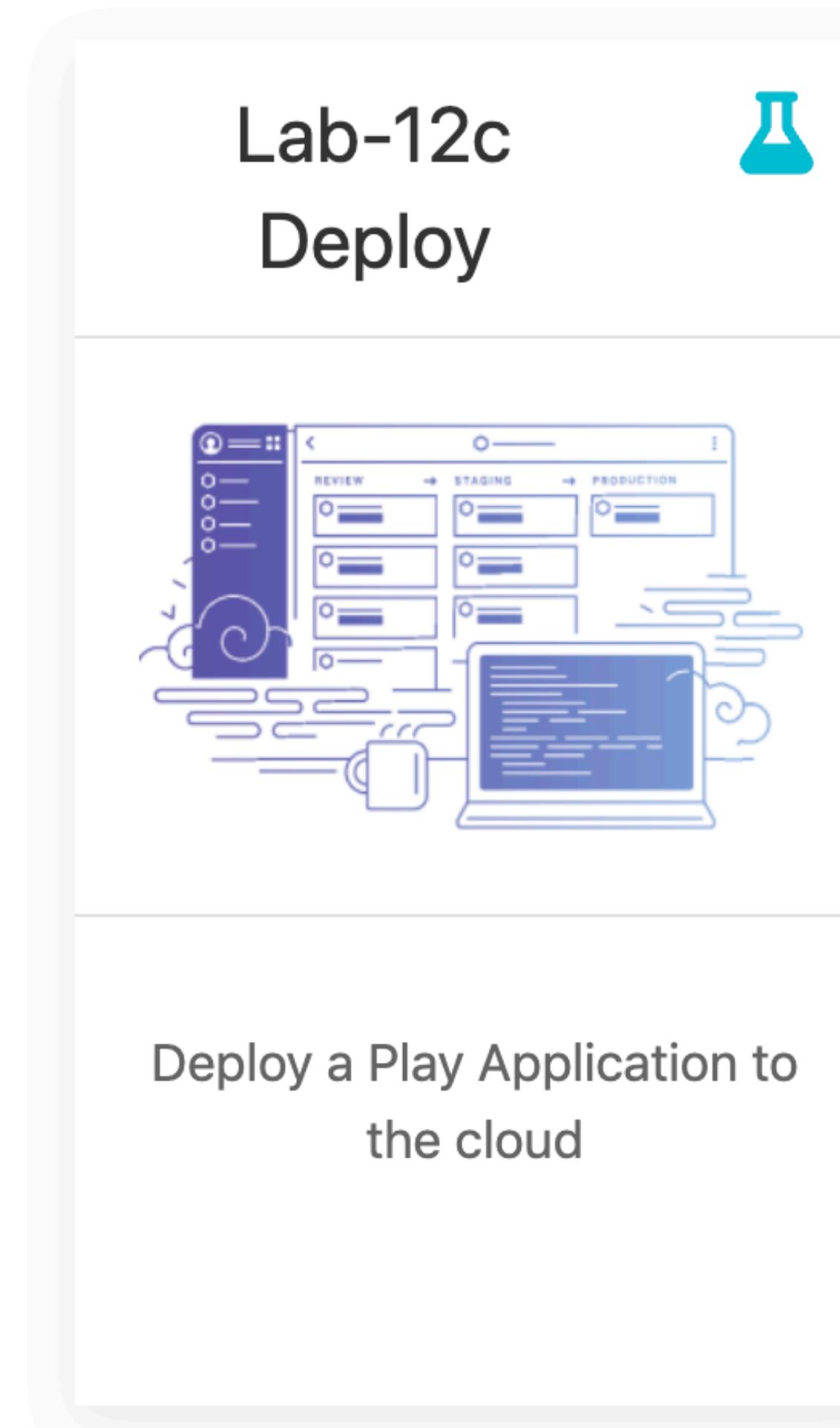
Heroku: Application Service Provider



Github: Host for the application source



Deploying a Play Application



1. Configuration

Four Key Configuration Parameters

- 1.1- JDK Version
- 1.2- Play Version
- 1.3- Database Connection String
- 1.4- Production Mode

1-1. JDK Version

1.Configuration

Heroku supports multiple versions of the JDK

<https://devcenter.heroku.com/articles/java-support>

Supported Java versions

Heroku currently uses OpenJDK 8 to run your application by default. OpenJDK versions 9 and 7 are also available. Depending on the major version you select the latest available update of that JDK will be used each time you deploy your app.

Current default versions are:

- Java 7 - [1.7.0_171](#)
- Java 8 - [1.8.0_161](#)
- Java 9 - [9.0.4](#)
- Java 10 - [10](#)

system.properties

Place this file in project root:

`java.runtime.version=8`

1-2. Play Version

1.Configuration

<https://www.playframework.com/download#alternatives>

Play Application Framework Versions

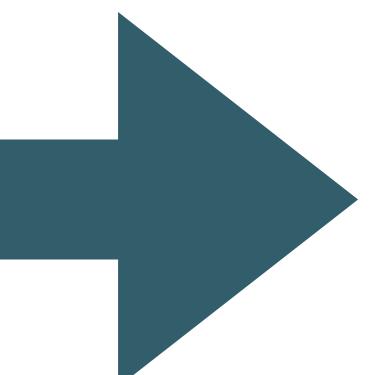
1.5 Setup Instructions

play-1.5.2.zip	Oct 30 2018	79M
play-1.5.1.zip	Jul 17 2018	79M
play-1.5.0.zip	Sep 29 2017	79M

Edit existing file:

conf/dependencies.yml

```
# Application dependencies
require:
  - play
```



```
# Application dependencies
require:
  - play 1.5.2
  - org.postgresql -> postgresql 42.2.2:
    force: true
```

1-3. Database Connection String

1.Configuration

Edit existing file:

conf/application.conf

```
db.default=mem
```

Comment out this line by placing a # in the first line:

```
# db.default=mem
```

Insert the following directly below:

```
db=${DATABASE_URL}
jpa.dialect=org.hibernate.dialect.PostgreSQLDialect
jpa.ddl=update
```

Dev mode
Application
connected to in
memory database

Production Mode
Application connected to
Postgres Database,
specified by platform

1-4. Production Mode

1.Configuration

Edit existing file:

(4) Production Mode

Also 'application.conf' - at the top of the file we have this:

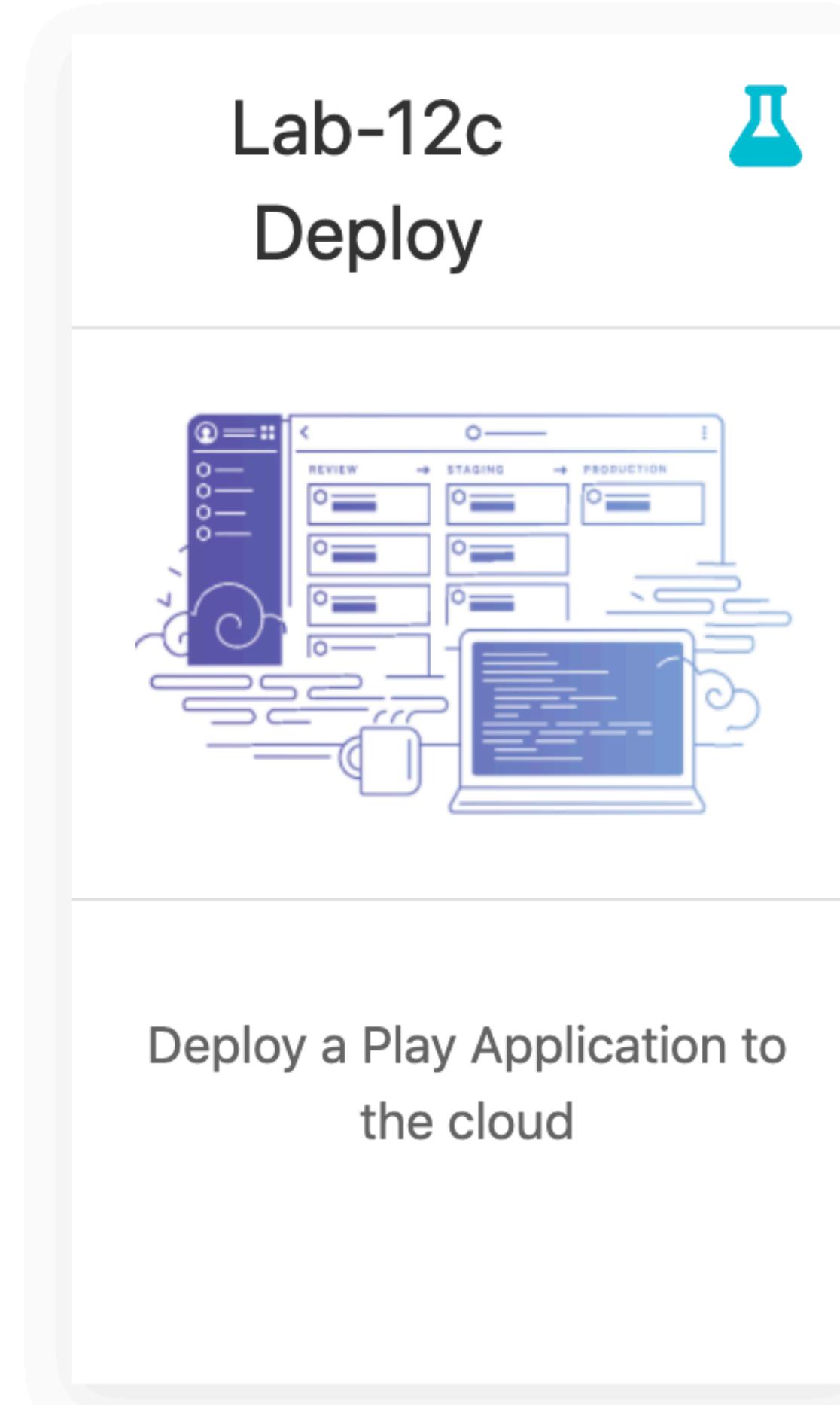
```
# Application mode
#
# Set to dev to enable instant reloading and other development help.
# Otherwise set to prod.
application.mode=dev
%prod.application.mode=prod
```

This needs to be changed to this:

```
# Application mode
#
# Set to dev to enable instant reloading and other development help.
# Otherwise set to prod.
#application.mode=dev
prod.application.mode=prod
```

Production Mode
optimises additional
features

Deploying a Play Application



2. Staging

Simple process

- 2.1 - Link a Github Repository containing the project source
- 2.2 - Configure Buildpack

2.1- Link a Github Repository containing the project source

Deployment method

Heroku Git Use Heroku CLI

GitHub Connected ✓

Container Registry Use Heroku CLI

App connected to GitHub

Code diffs, manual and auto deploys are available for this app.

Connected to [wit-hdip-comp-sci-2019/todolist-versioned](#) by  [edeleastar](#)

[Disconnect...](#)

↳ Releases in the [activity feed](#) link to GitHub to view commit diffs

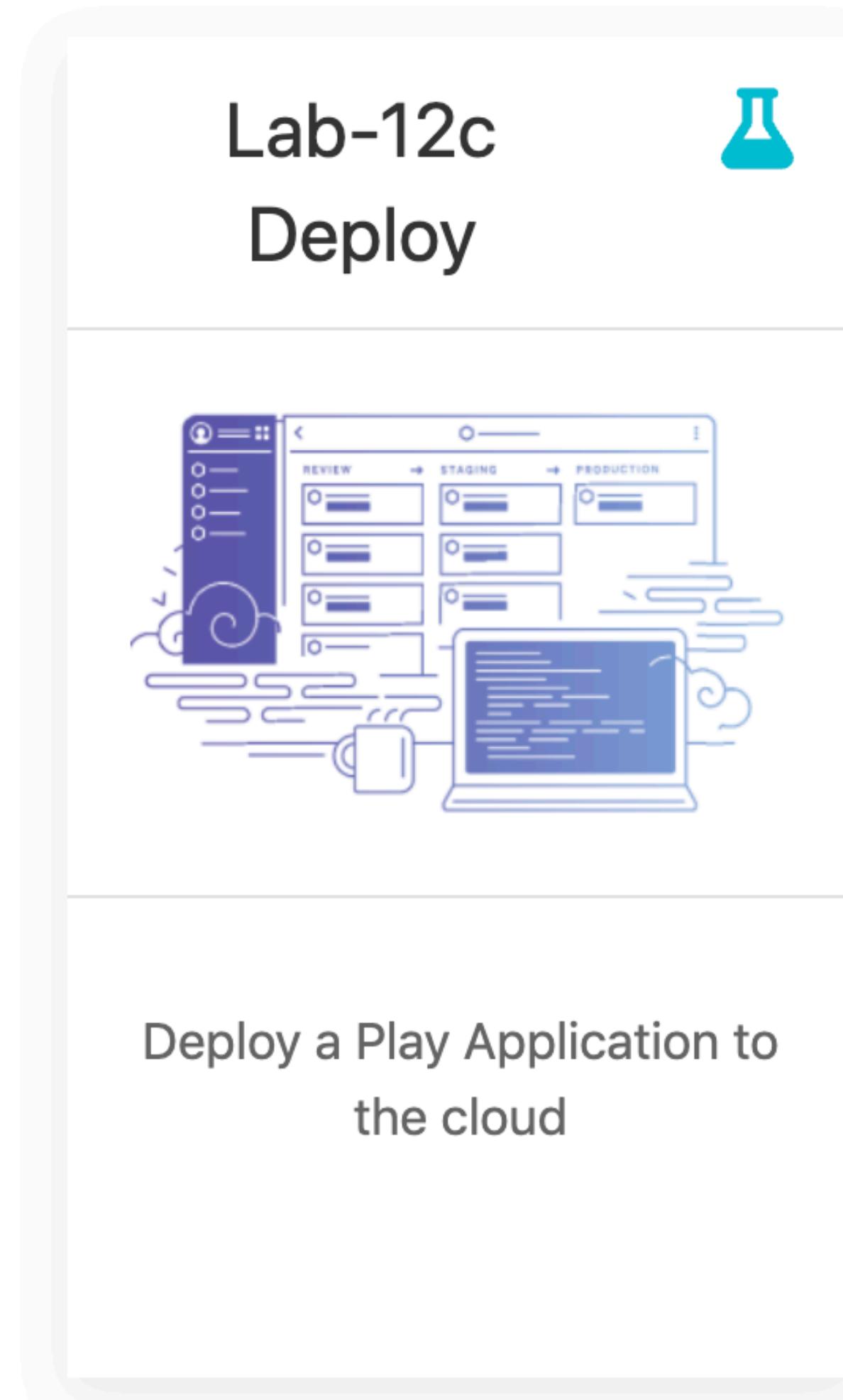
2.4- Configure Build Pack

2.Staging

The screenshot shows the Heroku dashboard for the app 'todolist-edel'. On the left, there's a sidebar with 'Personal' and 'todolist-edel' sections, and a top navigation bar with 'Overview', 'Resources', 'Deploy', 'Metrics', 'Activity', 'Access', 'Settings', and a 'More' dropdown. A yellow star icon and 'Open app' button are also present. The main area shows the app name 'todolist-edel' and a 'Config Variables' section with a 'Reveal Config Vars' button. Below it is an 'Info' section with fields like Region (her), Stack (No), Framework (No), Slug size (No), and Heroku Git URL (ht). The 'Buildpacks' section indicates 'Buildpacks are used'. A modal window titled 'Add Buildpack' is open, containing a 'Enter Buildpack URL' input field with the value 'https://github.com/heroku/heroku-buildpack-play' and a section titled 'Or select from our officially supported buildpacks' with icons for nodejs, python, php, ruby, java, go, gradle, scala, and clojure. A large purple 'Save changes' button is at the bottom of the modal.

Instructs Heroku that the application is a Play Framework app.

Deploying a Play Application



3. Deployment

Two Processes:

- 3.1- Build & Deploy
- 3.2- Monitor

3.1- Build

3. Deployment

Manual deploy

Deploy the current state of a branch to this app.

Deploy a GitHub branch

This will deploy the current state of the branch you specify below. [Learn more.](#)

Choose a branch to deploy

master

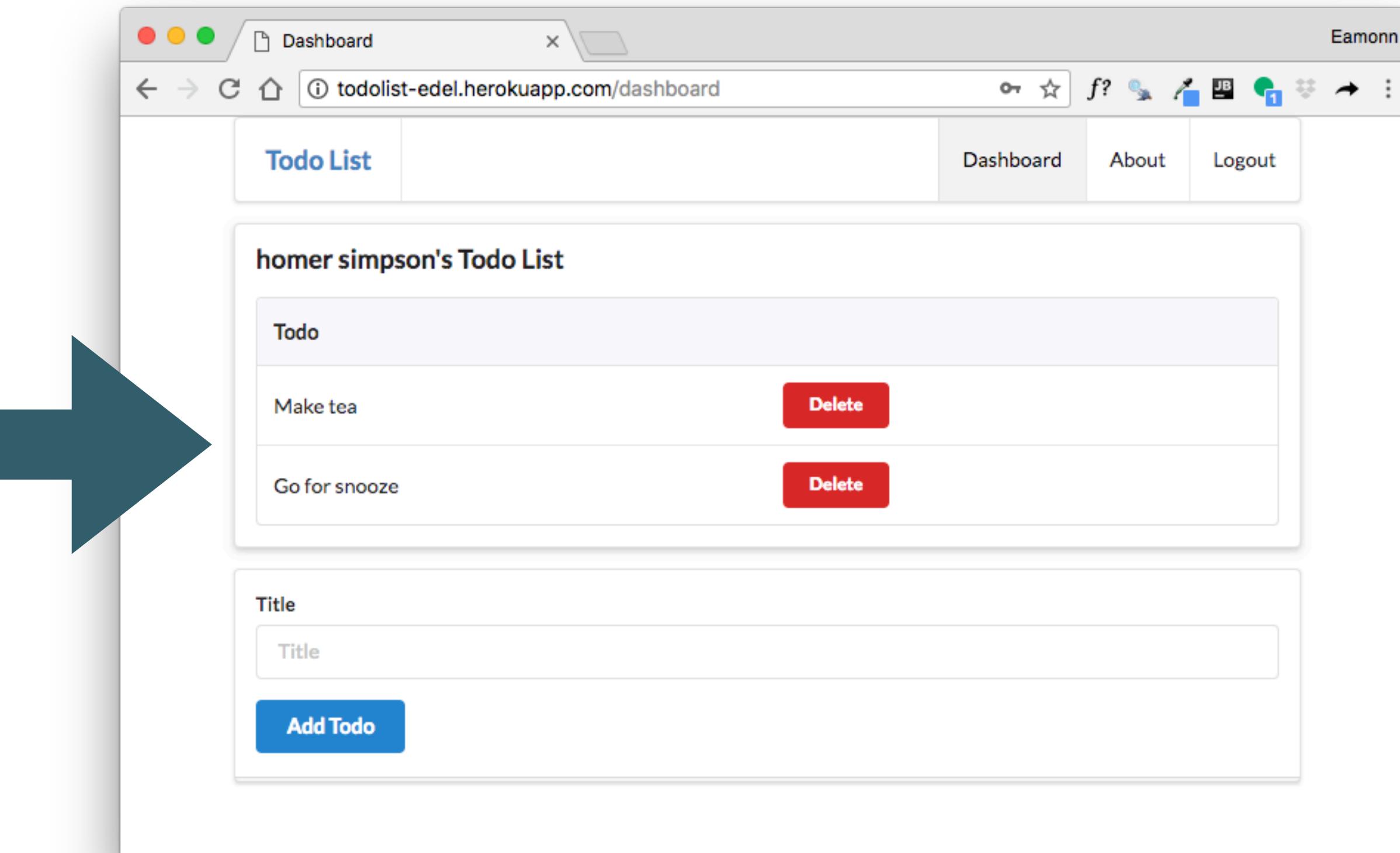
Deploy Branch

Deploy Branch

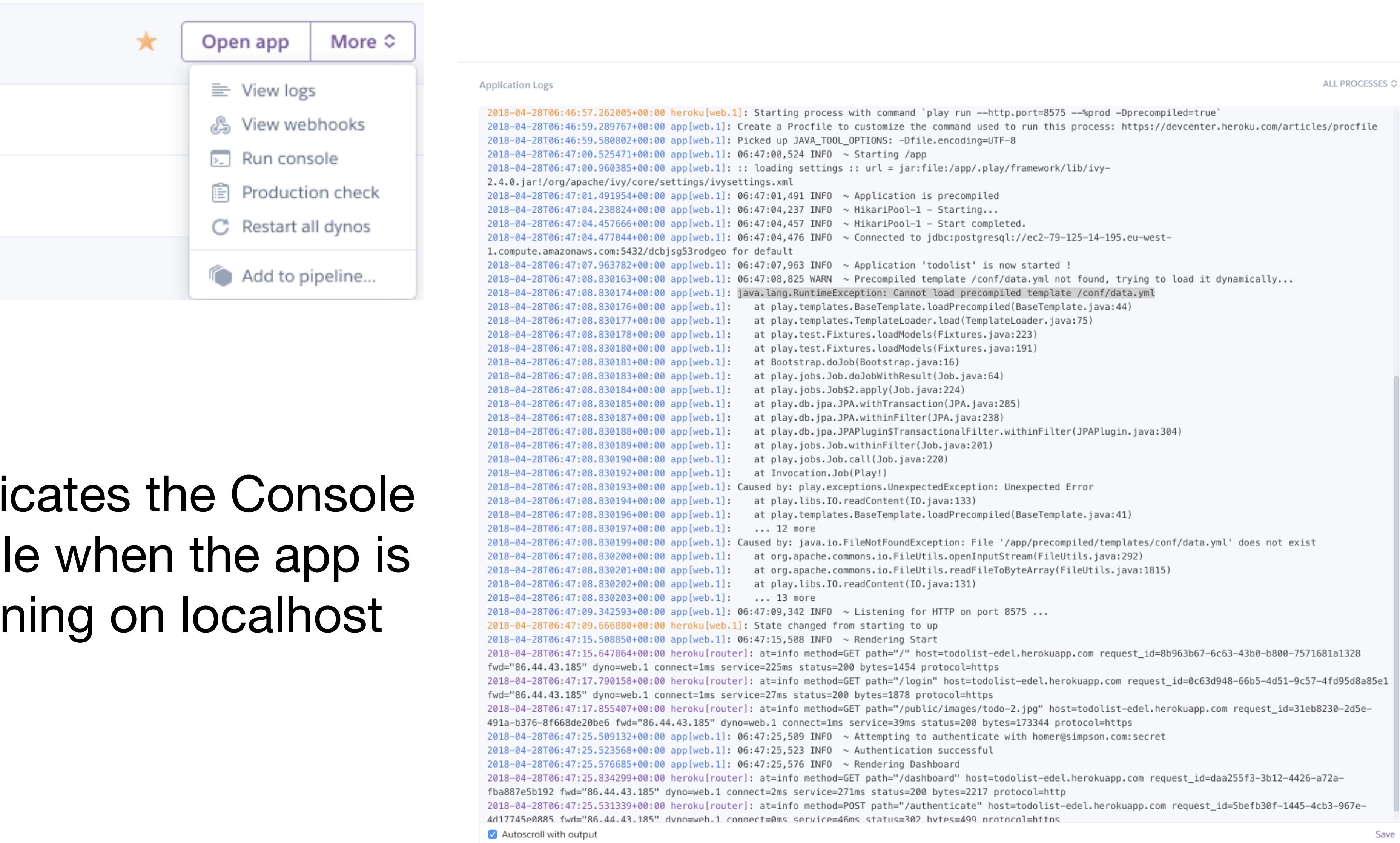
```
~ lib/org.osgi.enterprise-4.2.0.jar
~ lib/org.osgi.core-4.3.1.jar
~
~ Done!
~

Precompiling: .play/play precompile ./ --silent 2>&1
Listening for transport dt_socket at address: 8000
Apr 15, 2019 5:22:19 PM play.Logger warn
WARNING: Cannot replace DATABASE_URL in configuration (db=${DATABASE_URL})
17:22:20,292 INFO ~ Starting /tmp/build_7027466a2409dba595926690c9f06867
:: loading settings :: url = jar:file:/tmp/build_7027466a2409dba595926690c9f06867/.play/framework/lib/ivy-
2.4.0.jar!/org/apache/ivy/core/settings/ivysettings.xml
17:22:20,865 INFO ~ Precompiling ...
17:22:27,441 INFO ~ Done.
~ Warning: no application.mode defined in you conf/application.conf. Using DEV mode.
~ using java version "1.8.0_201-heroku"
-----> No Procfile found. Will use the following default process:
play run --http.port=$PORT $PLAY_OPTS
-----> Discovering process types
Procfile declares types      -> (none)
Default types for buildpack -> web
-----> Compressing...
Done: 94.5M
-----> Launching...
Released v6
https://todolist-wit1.herokuapp.com/ deployed to Heroku

Build finished
```



3. Deployment



The screenshot shows the Heroku Application Console interface. At the top, there's a navigation bar with a star icon, 'Open app' button, and a 'More' dropdown menu. The 'More' menu is open, displaying options: 'View logs', 'View webhooks', 'Run console', 'Production check', 'Restart all dynos', and 'Add to pipeline...'. Below this is a section titled 'Application Logs' with a 'ALL PROCESSES' dropdown. The log output is as follows:

```
2018-04-28T06:46:57.262005+00:00 heroku[web.1]: Starting process with command `play run --http.port=8575 --prod -Dprecompiled=true`
2018-04-28T06:46:59.289767+00:00 app[web.1]: Create a Procfile to customize the command used to run this process: https://devcenter.heroku.com/articles/procfile
2018-04-28T06:46:59.580802+00:00 app[web.1]: Picked up JAVA_TOOL_OPTIONS: -Dfile.encoding=UTF-8
2018-04-28T06:47:00.525471+00:00 app[web.1]: 06:47:00,524 INFO ~ Starting /app
2018-04-28T06:47:00.960385+00:00 app[web.1]: :: loading settings :: url = jar:file:/app/.play/framework/lib/ivy-2.4.0.jar!/org/apache/ivy/core/settings/ivysettings.xml
2018-04-28T06:47:01.491954+00:00 app[web.1]: 06:47:01,491 INFO ~ Application is precompiled
2018-04-28T06:47:04.238824+00:00 app[web.1]: 06:47:04,237 INFO ~ HikariPool-1 - Starting...
2018-04-28T06:47:04.457666+00:00 app[web.1]: 06:47:04,457 INFO ~ HikariPool-1 - Start completed.
2018-04-28T06:47:04.477044+00:00 app[web.1]: 06:47:04,476 INFO ~ Connected to jdbc:postgresql://ec2-79-125-14-195.eu-west-1.compute.amazonaws.com:5432/dcbjsg53rodgeo for default
2018-04-28T06:47:07.963782+00:00 app[web.1]: 06:47:07,963 INFO ~ Application 'todolist' is now started !
2018-04-28T06:47:08.830163+00:00 app[web.1]: 06:47:08,825 WARN ~ Precompiled template /conf/data.yml not found, trying to load it dynamically...
2018-04-28T06:47:08.830174+00:00 app[web.1]: java.lang.RuntimeException: Cannot load precompiled template /conf/data.yml
2018-04-28T06:47:08.830176+00:00 app[web.1]: at play.templates.BaseTemplate.loadPrecompiled(BaseTemplate.java:44)
2018-04-28T06:47:08.830177+00:00 app[web.1]: at play.templates.TemplateLoader.load(TemplateLoader.java:75)
2018-04-28T06:47:08.830178+00:00 app[web.1]: at play.test.Fixtures.loadModels(Fixtures.java:223)
2018-04-28T06:47:08.830180+00:00 app[web.1]: at play.test.Fixtures.loadModels(Fixtures.java:191)
2018-04-28T06:47:08.830181+00:00 app[web.1]: at Bootstrap.doJob(Bootstrap.java:16)
2018-04-28T06:47:08.830183+00:00 app[web.1]: at play.jobs.Job.doJobWithResult(Job.java:64)
2018-04-28T06:47:08.830184+00:00 app[web.1]: at play.jobs.Job$2.apply(Job.java:224)
2018-04-28T06:47:08.830185+00:00 app[web.1]: at play.db.jpa.JPA.withTransaction(JPA.java:285)
2018-04-28T06:47:08.830187+00:00 app[web.1]: at play.db.jpa.JPA.withinFilter(JPA.java:238)
2018-04-28T06:47:08.830188+00:00 app[web.1]: at play.db.jpa.JPAPlugin$TransactionalFilter.withinFilter(JPAPlugin.java:304)
2018-04-28T06:47:08.830189+00:00 app[web.1]: at play.jobs.Job.withinFilter(Job.java:201)
2018-04-28T06:47:08.830190+00:00 app[web.1]: at play.jobs.Job.call(Job.java:220)
2018-04-28T06:47:08.830192+00:00 app[web.1]: at Invocation.Job(Play!)
2018-04-28T06:47:08.830193+00:00 app[web.1]: Caused by: play.exceptions.UnexpectedException: Unexpected Error
2018-04-28T06:47:08.830194+00:00 app[web.1]: at play.libs.IO.readContent(IO.java:133)
2018-04-28T06:47:08.830196+00:00 app[web.1]: at play.templates.BaseTemplate.loadPrecompiled(BaseTemplate.java:41)
2018-04-28T06:47:08.830197+00:00 app[web.1]: ... 12 more
2018-04-28T06:47:08.830199+00:00 app[web.1]: Caused by: java.io.FileNotFoundException: File '/app/precompiled/templates/conf/data.yml' does not exist
2018-04-28T06:47:08.830200+00:00 app[web.1]: at org.apache.commons.io.FileUtils.openInputStream(FileUtils.java:292)
2018-04-28T06:47:08.830201+00:00 app[web.1]: at org.apache.commons.io.FileUtils.readFileToByteArray(FileUtils.java:1815)
2018-04-28T06:47:08.830202+00:00 app[web.1]: at play.libs.IO.readContent(IO.java:131)
2018-04-28T06:47:08.830203+00:00 app[web.1]: ... 13 more
2018-04-28T06:47:09.342593+00:00 app[web.1]: 06:47:09,342 INFO ~ Listening for HTTP on port 8575 ...
2018-04-28T06:47:09.666880+00:00 heroku[web.1]: State changed from starting to up
2018-04-28T06:47:15.508850+00:00 app[web.1]: 06:47:15,508 INFO ~ Rendering Start
2018-04-28T06:47:15.647864+00:00 heroku[router]: at=info method=GET path="/" host=todolist-edel.herokuapp.com request_id=8b963b67-6c63-43b0-b800-7571681a1328 fwd="86.44.43.185" dyno=web.1 connect=1ms service=225ms status=200 bytes=1454 protocol=https
2018-04-28T06:47:17.790158+00:00 heroku[router]: at=info method=GET path="/login" host=todolist-edel.herokuapp.com request_id=0c63d948-66b5-4d51-9c57-4fd95d8a85e1 fwd="86.44.43.185" dyno=web.1 connect=1ms service=27ms status=200 bytes=1878 protocol=https
2018-04-28T06:47:17.855407+00:00 heroku[router]: at=info method=GET path="/public/images/todo-2.jpg" host=todolist-edel.herokuapp.com request_id=31eb8230-2d5e-491a-b376-8f668de20be6 fwd="86.44.43.185" dyno=web.1 connect=1ms service=39ms status=200 bytes=173344 protocol=https
2018-04-28T06:47:25.509132+00:00 app[web.1]: 06:47:25,509 INFO ~ Attempting to authenticate with homer@simpson.com:secret
2018-04-28T06:47:25.523568+00:00 app[web.1]: 06:47:25,523 INFO ~ Authentication successful
2018-04-28T06:47:25.576685+00:00 app[web.1]: 06:47:25,576 INFO ~ Rendering Dashboard
2018-04-28T06:47:25.834299+00:00 heroku[router]: at=info method=GET path="/dashboard" host=todolist-edel.herokuapp.com request_id=daa255f3-3b12-4426-a72a-fba887e5b192 fwd="86.44.43.185" dyno=web.1 connect=2ms service=271ms status=200 bytes=2217 protocol=http
2018-04-28T06:47:25.531339+00:00 heroku[router]: at=info method=POST path="/authenticate" host=todolist-edel.herokuapp.com request_id=5befb30f-1445-4cb3-967e-4d17745e0885 fwd="86.44.43.185" dyno=web.1 connect=0ms service=46ms status=302 bytes=499 protocol=https
```

Save Autoscroll with output

Replicates the Console visible when the app is running on localhost

3.2- Monitor - Build

3. Deployment

Deploy your latest changes

Add a commit message to tell others what you've changed.

Pushed from Dropbox

Deploy

Receive code from Dropbox



Build app [Hide build log](#)



```
~  
~ lib/postgresql-42.2.2.jar  
~ lib/org.osgi.enterprise-4.2.0.jar  
~ lib/org.osgi.core-4.3.1.jar  
~  
~ Done!  
~  
Precompiling: .play/play precompile ./ --silent 2>&1
```

Autoscroll with output

If app malfunctioning, check Build Logs to see if application was compiled correctly.

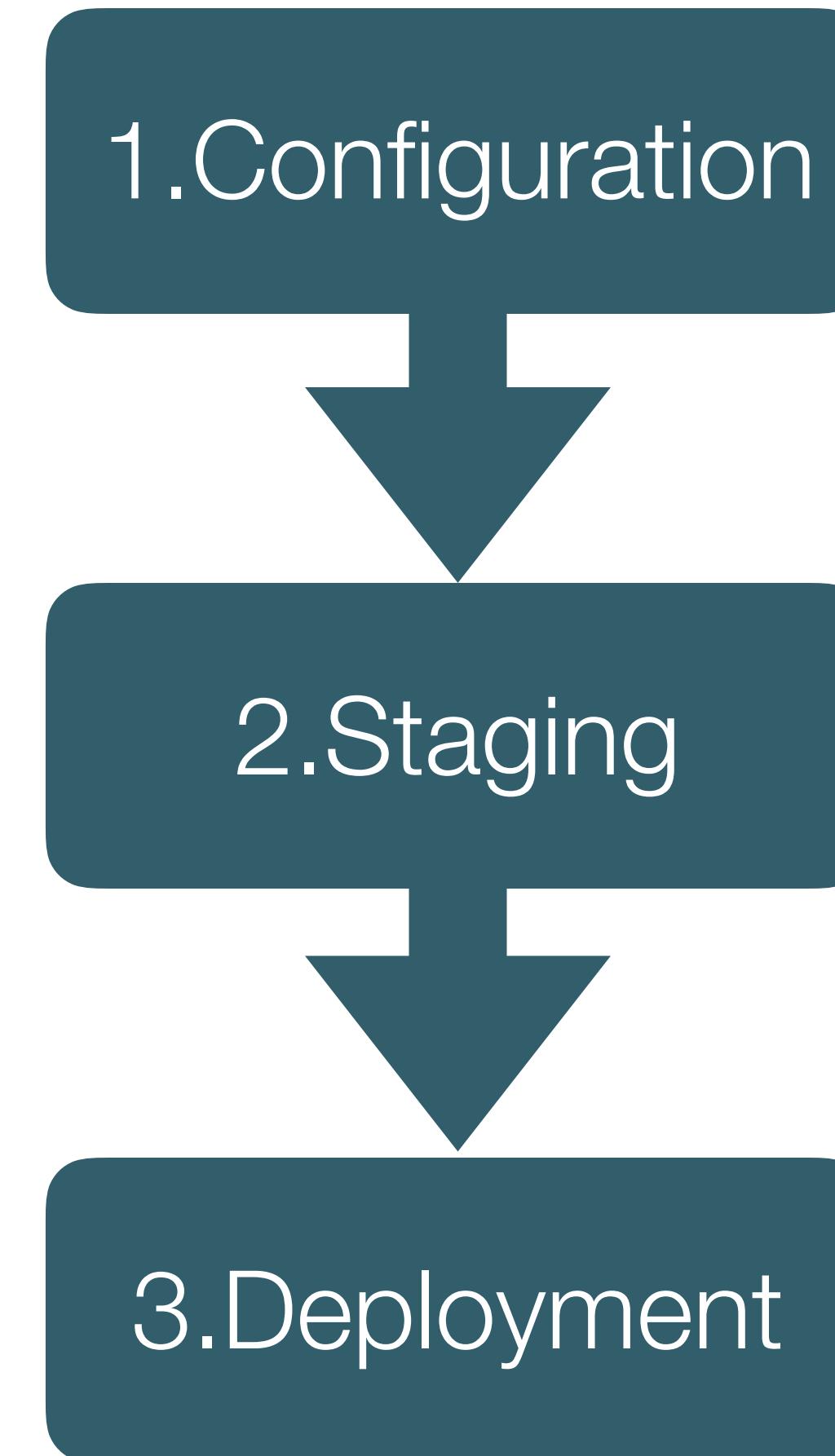
Deploying a Play Application

Lab-12c

Deploy



Deploy a Play Application to the cloud

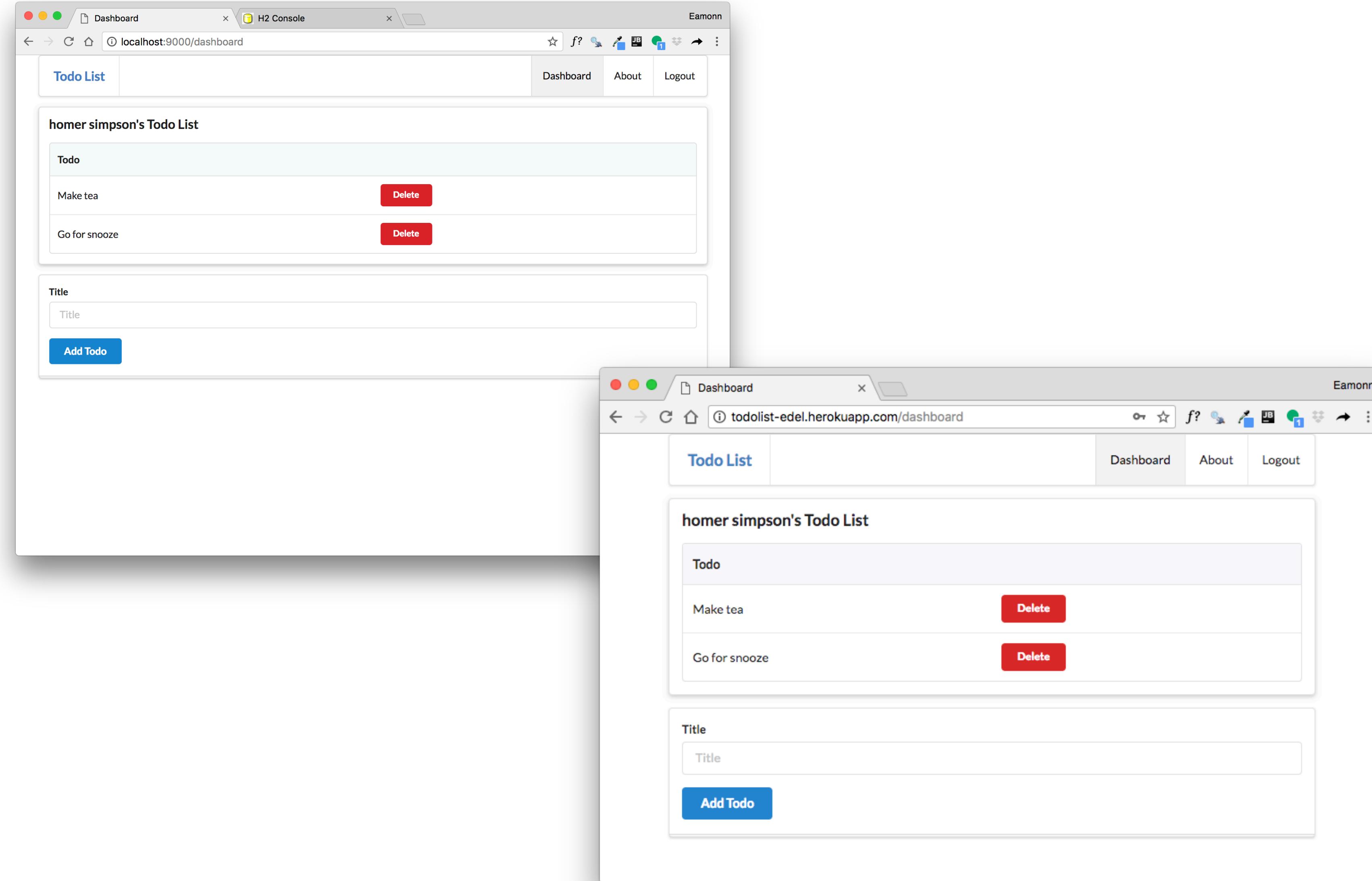


- 1.1- JDK Version
- 1.2- Play Version
- 1.3- Database Connection String
- 1.4- Production Mode

- 2.1- Link a Github Repository containing the project source
- 2.2 - Configure Buildpack

- 3.1- Build & Deploy
- 3.2- Monitor

http://localhost:9000



http://todolist-edel.herokuapp.com/dashboard

<http://localhost:9000/@db>

The image shows two side-by-side screenshots of database management interfaces.

Left Side (H2 Console):

- Toolbar:** Includes icons for file operations, search, and various database functions.
- Header:** Shows the URL localhost:8082/login.do?jsessionid=1e65cdc7cd5aada5be80b9df24942f4a and the user name Eamonn.
- Left Sidebar:** Lists database objects: jdbc:h2:mem:play, member, member_todo, todo, information_schema, Sequences, and Users. It also shows the version H2 1.4.196 (2017-06-10).
- Important Commands:** A table of keyboard shortcuts.
- Sample SQL Script:** A code block with examples for creating tables, inserting data, selecting data, and deleting rows.
- Adding Database Drivers:** Instructions for registering database drivers.

Right Side (Adminium Dashboard):

- Header:** Shows the database name todolist-edel, a dropdown for "Jump to table (s to focus)", and a sign-in message for edeleastar@gmail.com.
- Dashboard:** A summary table showing the status of three tables: member (2 records), member_todo (3 records), and todo (3 records).
- Table Listings:**
 - Listing on todo:** 4 records. Data:

	Id	Title
	6	demo
	3	Make more tea
	2	Go for snooze
	1	Make tea
 - Listing on member:** 2 records. Data:

	Id	Email	Firstname	Lastname	Password
	5	marge@simpson.com	marge	simpson	secret
	4	homer@simpson.com	homer	simpson	secret
- Table Statistics:** A summary table showing the full size, table size, and record count for each table.
- System Information:** Database size is 7.86 MB.
- Footer:** System tables listed: pg_stat_activity - pg_stat_statements - pg_stat_all_indexes - pg_stat_user_tables - Database settings.

<https://www.adminium.io/dashboard>

Monitoring the Deployed app...

The image displays four browser windows illustrating the deployment and monitoring of a Heroku application named "todolist-edel".

- Deployment:** Shows the Heroku dashboard interface for deploying from a Dropbox folder. It includes sections for "Deploy changes", "Deploy your latest changes", and a "Build app" log showing the deployment process.
- Logs:** Shows the Heroku logs for the application, displaying recent log entries for requests to the dashboard and about pages.
- Application Status:** Shows the Heroku application overview page with tabs for Overview, Resources, Deploy, Metrics, Activity, Access, and Settings.
- Database Monitoring:** Shows the Adminium dashboard for the application's database, listing tables (member, member_todo, todo), their sizes, and record counts. It also shows detailed listings for the todo table.

Deployment Screenshot Details:

Deploy changes
Deploy all your changes in the Dropbox folder to this app.

Deploy your latest changes
Add a commit message to tell others what you've changed.
Pushed from Dropbox **Deploy**

Receive code from Dropbox **✓**

Build app [Hide build log](#) **✓**
play run --http.port=\$PORT \$PLAY_OPTS
----> Discovering process types
Procfile declares types → (none)
Default types for buildpack → web
----> Compressing...
Done: 91.1M
----> Launching...
Released v9
<https://todolist-edel.herokuapp.com/> deployed to Heroku
Build finished

Logs Screenshot Details:

protocol=https
2018-04-28T08:10:00.740454+00:00 app[web.1]: 08:10:00,740 INFO ~ Attempting to authenticate with homer@simpson.com:secret
2018-04-28T08:10:00.757815+00:00 app[web.1]: 08:10:00,757 INFO ~ Authentication successful
2018-04-28T08:10:00.792043+00:00 app[web.1]: 08:10:00,791 INFO ~ Rendering Dashboard
2018-04-28T08:10:00.759069+00:00 heroku[router]: at=info method=POST path="/authenticate" host=todolist-edel.herokuapp.com
request_id=2c2b22cc-281b-448c-ba07-8c2f1212851e fwd="86.44.43.185" dyno=web.1 connect=0ms service=25ms status=302 bytes=499
protocol=https
2018-04-28T08:10:00.804521+00:00 heroku[router]: at=info method=GET path="/dashboard" host=todolist-edel.herokuapp.com
request_id=e21e0a2-449e-48b5-877b-cb2e8b7f6717 fwd="86.44.43.185" dyno=web.1 connect=0ms service=14ms status=200 bytes=2217
protocol=http
2018-04-28T08:18:08.855230+00:00 app[web.1]: 08:18:08,855 INFO ~ Rendering about
2018-04-28T08:18:08.861515+00:00 heroku[router]: at=info method=GET path="/about" host=todolist-edel.herokuapp.com
request_id=ff8001fd-bff2-4c5e-b6f3-c085af436331 fwd="86.44.43.185" dyno=web.1 connect=1ms service=11ms status=200 bytes=1444
protocol=http
2018-04-28T08:18:12.867117+00:00 heroku[router]: at=info method=GET path="/dashboard" host=todolist-edel.herokuapp.com
Autoscroll with output **Save**

Database Monitoring Screenshot Details:

Dashboard

Listing on todo 3 records

	ID	Title
	3	Make more tea
	2	Go for snooze
	1	Make tea

Listing on member 2 records

	ID	Email	Firstname	Lastname	Password
	5	marge@simpson.com	marge	simpson	secret
	4	homer@simpson.com	homer	simpson	secret

Table Full table size Table size Record count

Table	Full table size	Table size	Record count	
member	32 KB	8 KB	2	
member_todo	24 KB	8 KB	3	
todo	24 KB	8 KB	3	
Totals	6 tables	80 KB	24 KB	0

Add a new table Database size 7.86 MB