

# BYOC

## Bring Your Own Container

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# **Java EE**

## **Classic Approach**

# App Servers

**Infrastructure**

# **Java EE Apps**

**In 3 steps**

# #1: Write Code

```
@Stateless
public class MyService {

    @PersistenceContext
    private EntityManager entityManager;

    @TransactionalAttribute(MANDATORY)
    public void doStuff() {
        // business logic
    }

}
```

# #2: Package

```
$ mvn package
[INFO] Scanning for projects...
.....
[INFO] -----
[INFO] BUILD SUCCESS
[INFO] -----
[INFO] Total time: 6.460s
[INFO] Finished at: Fri Mar 06 08:12:01 CET 2015
[INFO] Final Memory: 18M/200M
[INFO] -----
```

```
$ ls -sh target/*.war
968K target/myapp.war
```



# #3: Deploy

```
$ cp target/myapp.war  
~/wildfly-8.2.0.Final/standalone/deployments/
```

**Works great!**

**But...**

# **ClassLoader Hell**

# Release Cycles

# Hot Deployment

# App Server Setup

**Alternatives?**

~~Containerless~~

**Embedded Container**



**Application**

**=**

**Code + Container**

**Why?**

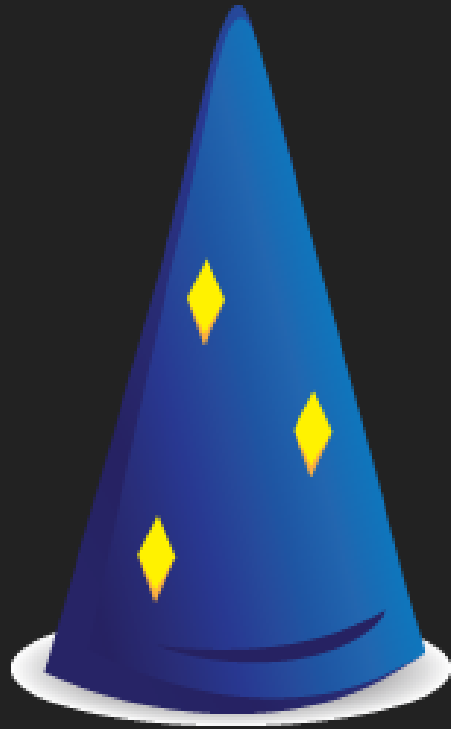
**1 JVM = 1 App = 1 CL**

**Flexibility**

# **Simpler Setup/Deployment**

**Run/Debug  
in your IDE**

**Examples?**



# Dropwizard

<http://dropwizard.io/>





# Spring Boot

<http://projects.spring.io/spring-boot/>

# Backset

<https://github.com/chkal/backset>

# JavaEE APIs

**CDI 1.2, JPA 2.1, JAX-RS 2.0, Servlet 3.1,  
JSP 2.3, EL 3.0, JSF 2.2, JDBC, JNDI, ...**

# **Kudos to**

**Hibernate, Jersey, Weld, Undertow, Jastow,  
MyFaces, BoneCP, Logback, ...**

# Executable FAT JAR

```
$ mvn package  
[...]
```

```
$ ls -sh target/*.jar  
30M target/myapp.jar
```

```
$ java -jar target/myapp.jar
```

# YAML Config

```
undertow:  
  connectors:  
    - type: http  
      port: 8080  
  
logging:  
  level: INFO  
  loggers:  
    de.chka1.backset: DEBUG
```

**DEMO**

**Keep an eye on**  
**Apache TomEE**



# ApplicationComposers

```
@EnableServices(jaxrs = true)
@Classes(context = "/", value = {
    MyResource.class, MyService.class })
public class MyApp {

    public static void main(String[] args) {
        ApplicationComposers.run(MyApp.class, args);
    }

}
```

# Thanks!

## Questions?

<https://github.com/chkal/backset>

<https://github.com/chkal/javaland15-byoc>

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