

MicroProfile - New and Noteworthy

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<https://www.linkedin.com/in/ivargrimstad>





Background

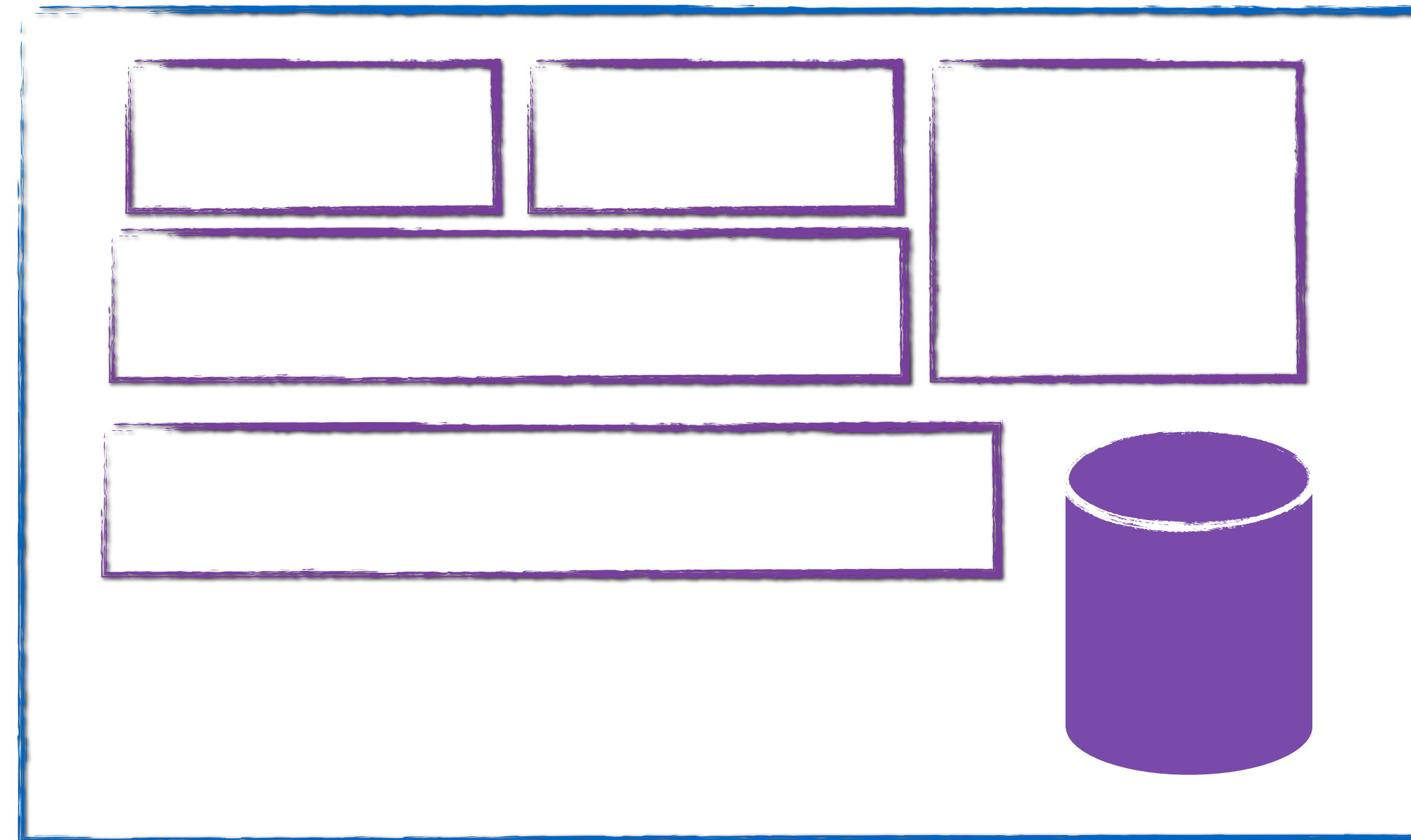


MicroProfile

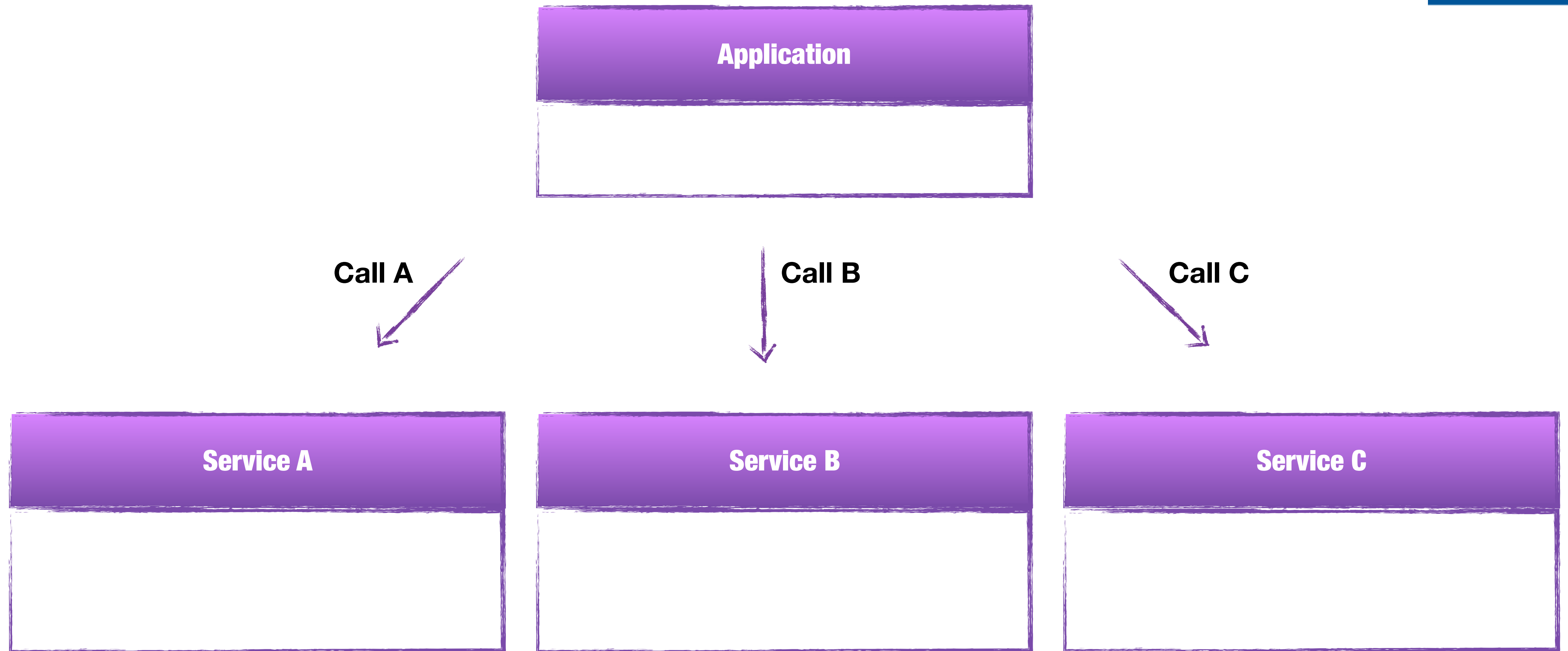


Demo and Samples

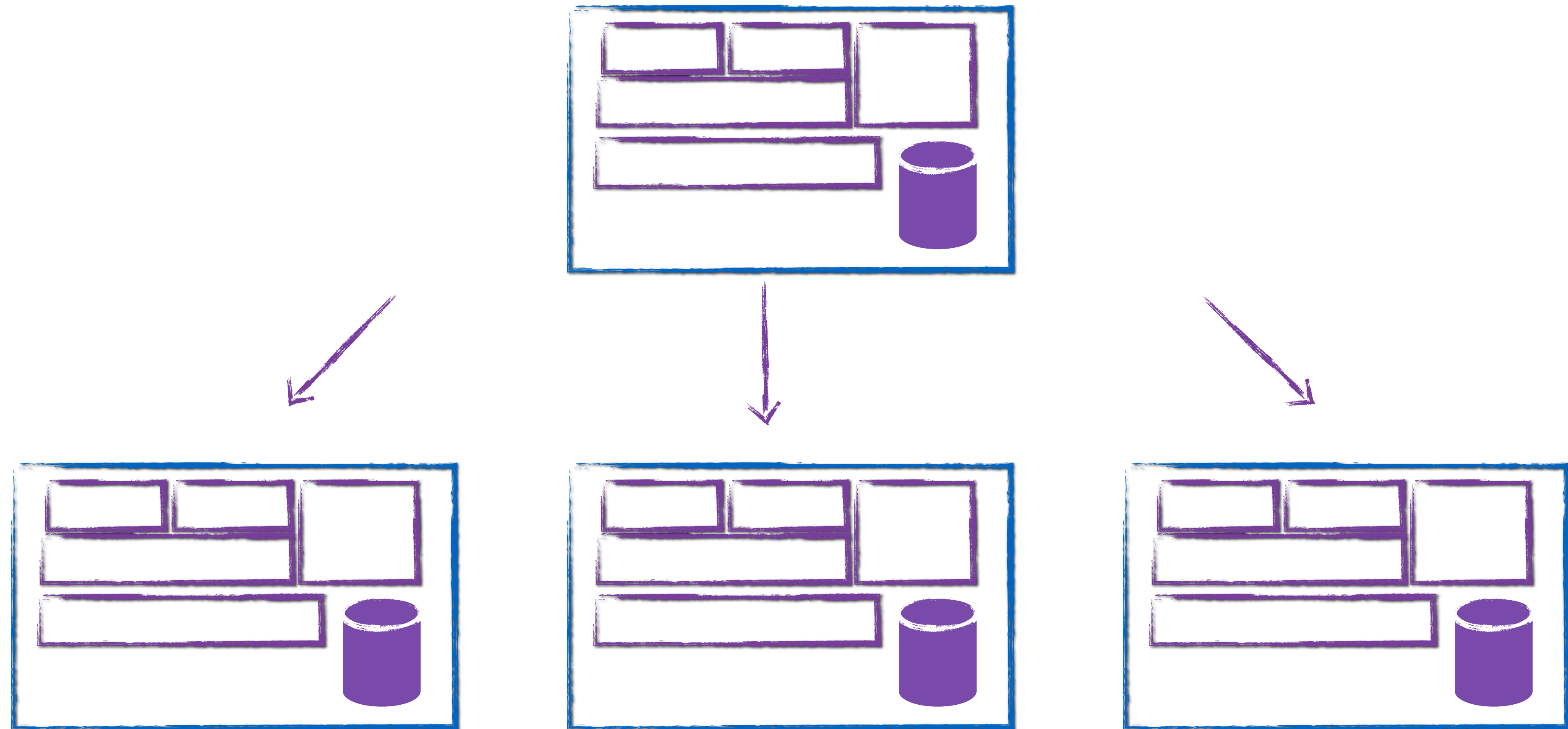
Monolithic Architecture



Microservice Architecture



Microservice Architecture



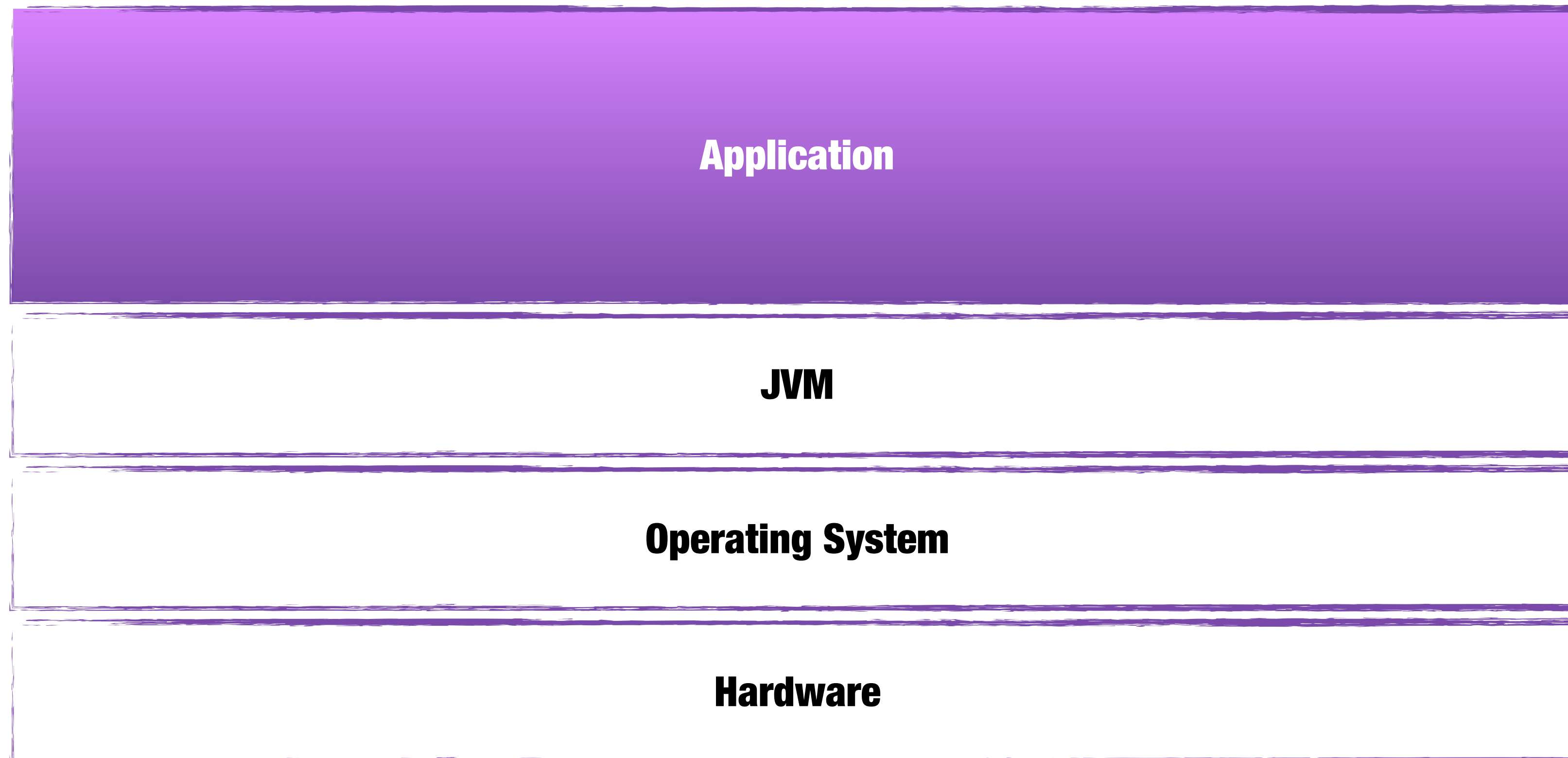
Packaging

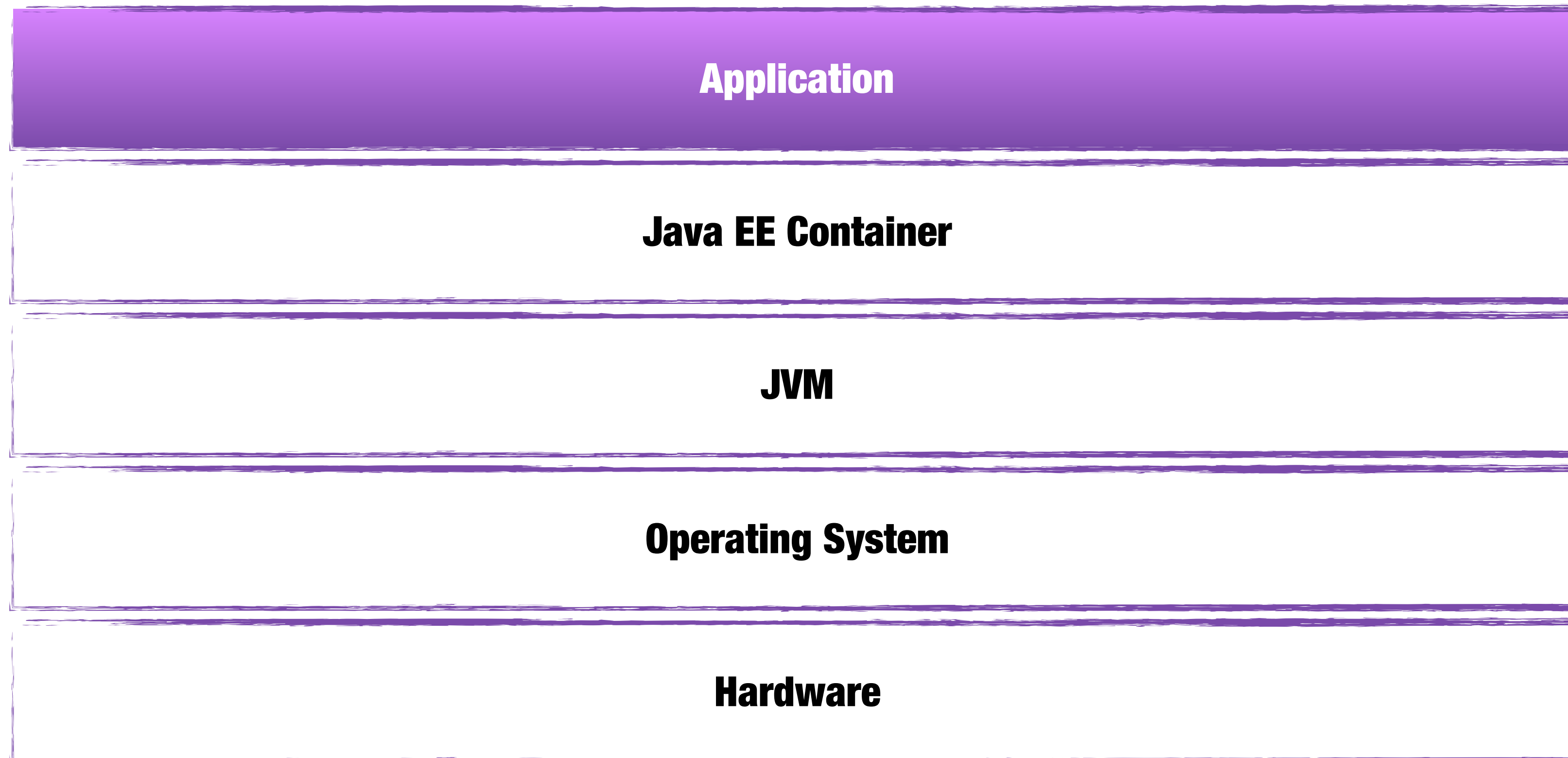
UberJAR

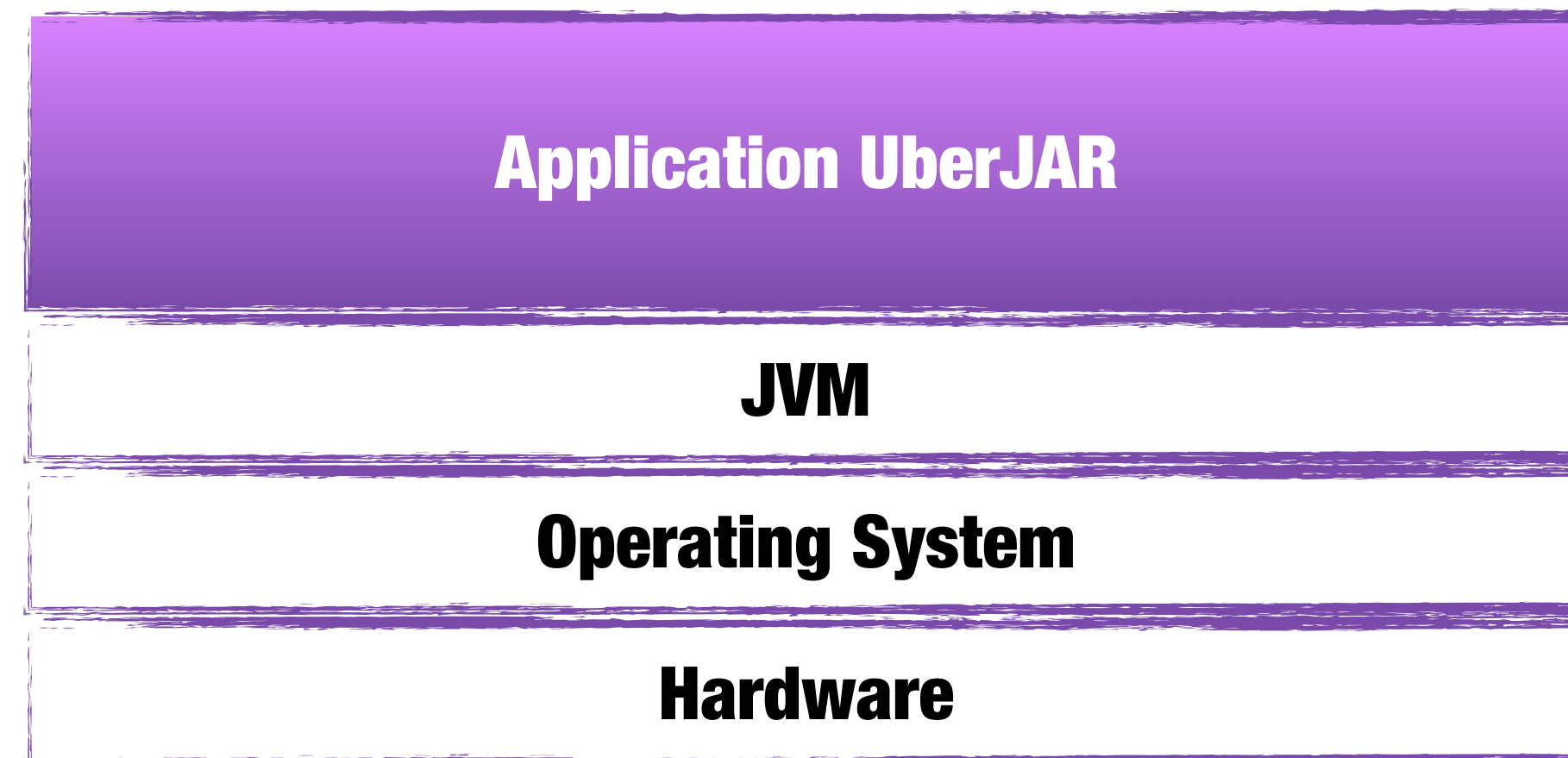
java -jar dukes.jar

Hollow JAR

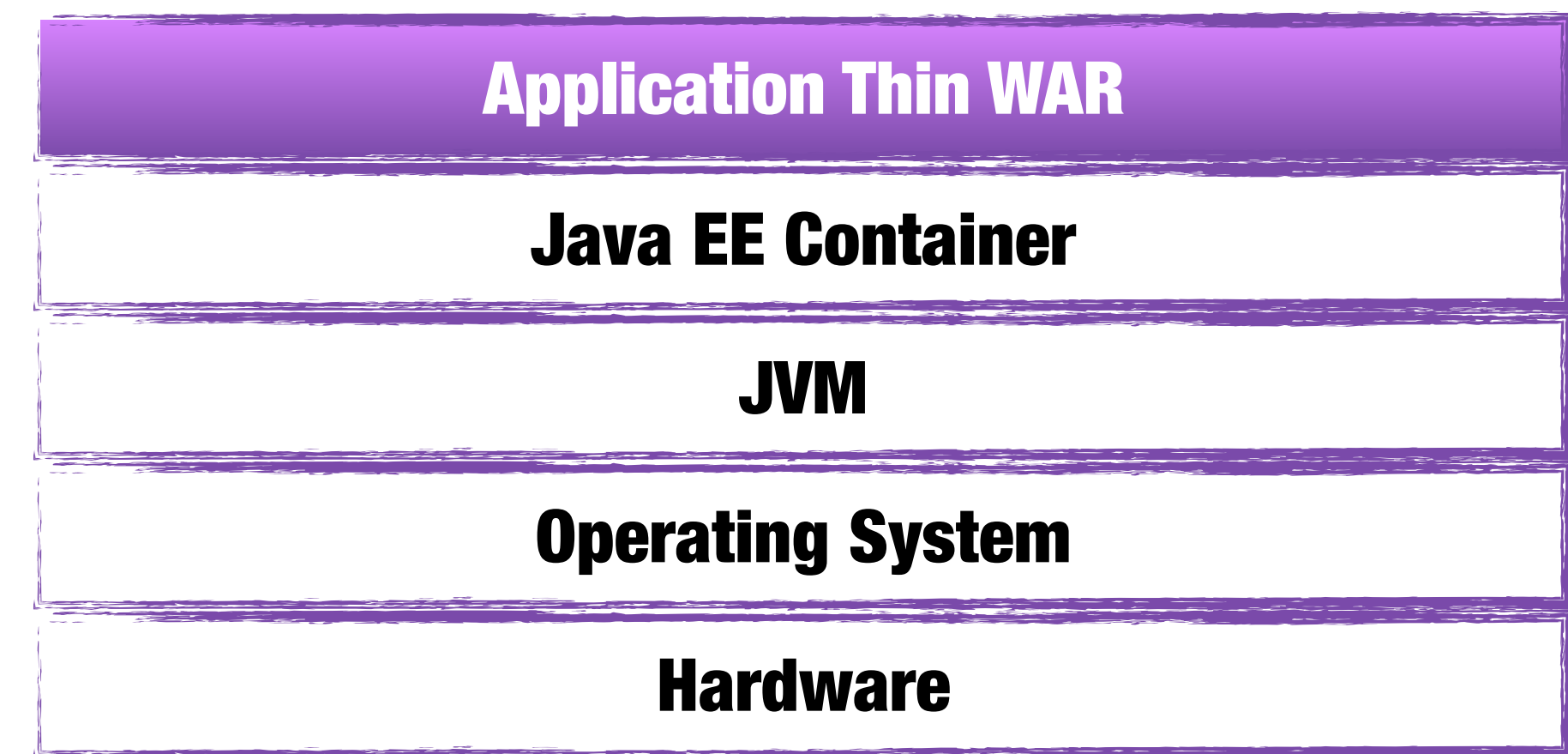
`java -jar dukes.jar dukes.war`







```
java -jar dukes.jar
```

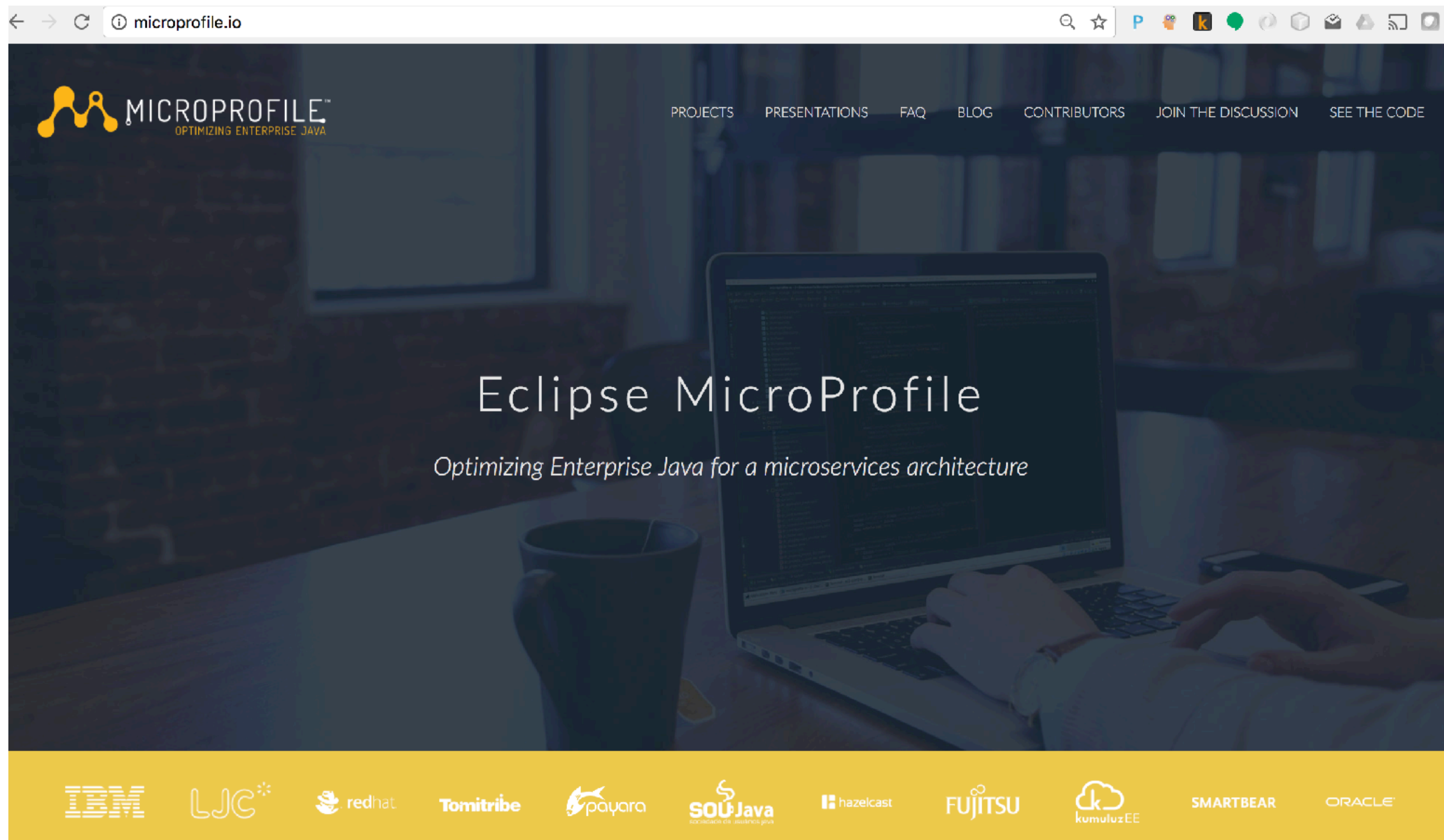


```
deployDukes.sh
```


Why MicroProfile ?

What was going on with **Java EE 8 ?**





Eclipse MicroProfile | projects

Secure | https://projects.eclipse.org/projects/technology.microprofile

lvar



Google Custom Search

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Eclipse MicroProfile

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The Eclipse MicroProfile project is aimed at optimizing Enterprise Java for the microservices architecture.

Many innovative "microservice" Enterprise Java environments already exist in the Java ecosystem, including but not limited to:

- **Wildfly Swarm**
- **WebSphere Liberty**
- **Payara**
- **TomEE**

These projects are creating new features and capabilities to address microservice architectures -- leveraging both Java EE and non-Java EE technologies.

The goal of this project is to iterate and innovate in short cycles, get community approval, release, and repeat. Eventually, the output of this project could be submitted to the JCP for possible future inclusion in a Java JSR (or some other standards body).

Licenses:
Apache License, Version 2.0



PROJECT LINKS

Website

MicroProfile Presentations

MicroProfile Calendar

Wiki



Profiles



Full Profile



Web Profile



JAX-RS + CDI + JSON-P

**+ WebSocket + Bean Validation + EJB + JPA
+ Servlet + JSF + JSP**

+ JMS + Batch + Java Mail + Concurrency + JAX-WS + JASPIC

MicroProfile 1.0

September, 2016 ✓



Implementations



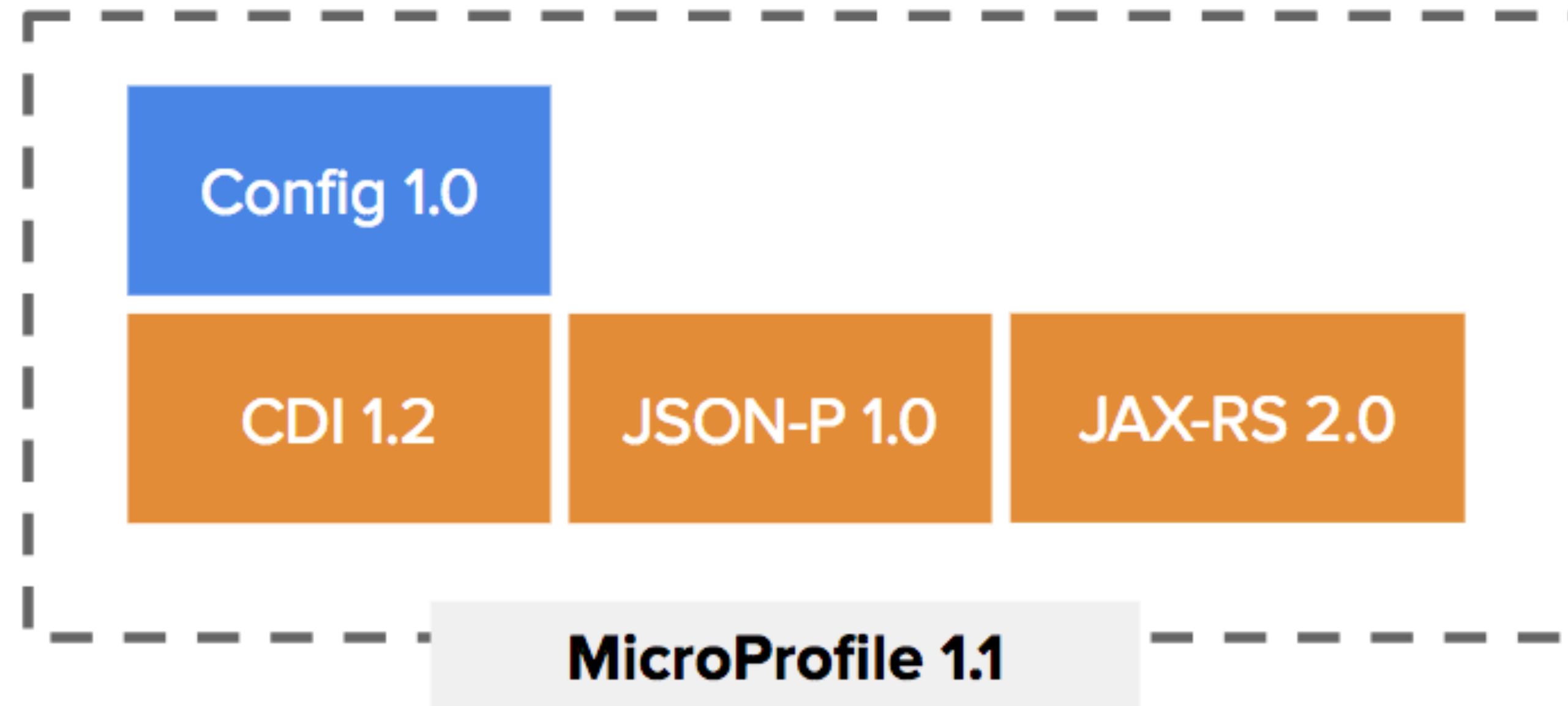
Demo



```
<dependency>  
  <groupId>io.microprofile</groupId>  
  <artifactId>microprofile</artifactId>  
  <version>1.0</version>  
  <type>pom</type>  
  <scope>provided</scope>  
</dependency>
```

MicroProfile 1.1

July 21, 2017 ✓



- = New
- = No change from last release

Configuration for MicroProfile 1.0



System Properties

`System.getProperties()`

Environment Variables

`System.getenv()`

Application Configuration

`META-INF/microprofile-config.properties`



```
<dependency>  
  <groupId>io.microprofile</groupId>  
  <artifactId>microprofile</artifactId>  
  <version>1.0</version>  
  <type>pom</type>  
  <scope>provided</scope>  
</dependency>
```

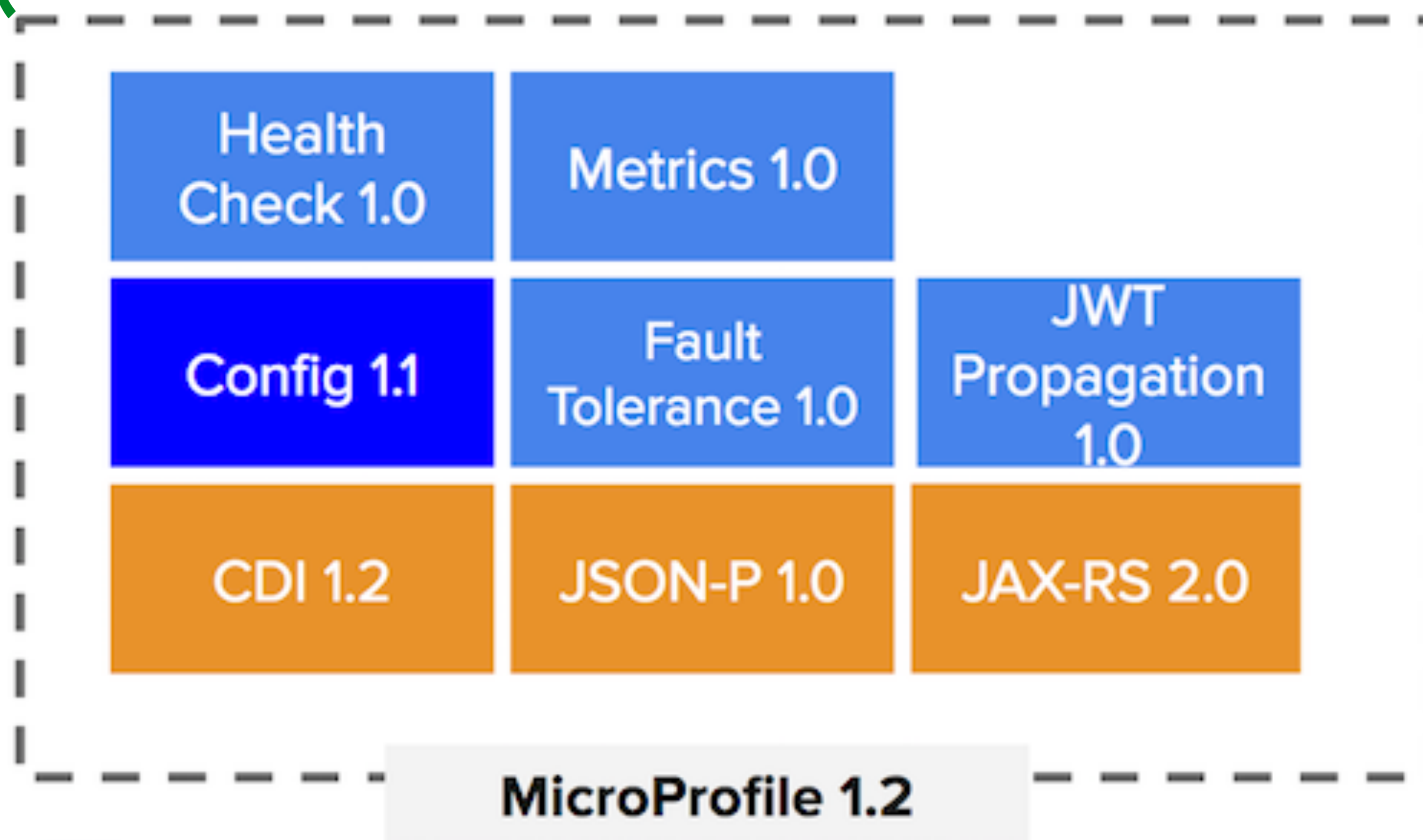



```
<dependency>  
  <groupId>org.eclipse.microprofile</groupId>  
  <artifactId>microprofile-bom</artifactId>  
  <version>1.1.0</version>  
  <type>pom</type>  
  <scope>provided</scope>  
</dependency>
```


Demo

MicroProfile 1.2

September 30, 2017 ✓



-  = New
-  = Updated
-  = No change from last release



```
<dependency>  
  <groupId>org.eclipse.microprofile</groupId>  
  <artifactId>microprofile-bom</artifactId>  
  <version>1.1.0</version>  
  <type>pom</type>  
  <scope>provided</scope>  
</dependency>
```

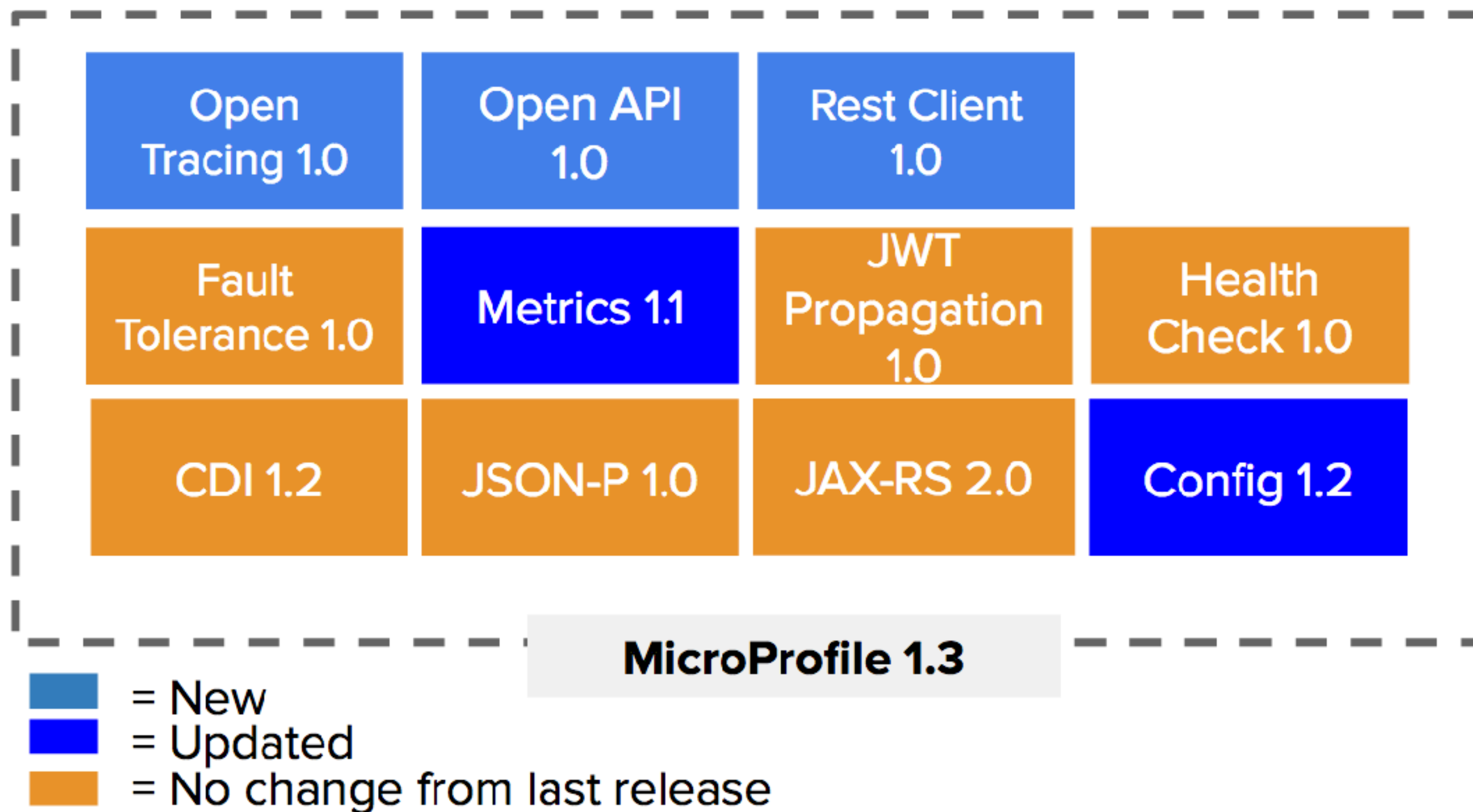



```
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```

Demo

MicroProfile 1.3

January 3, 2018 ✓





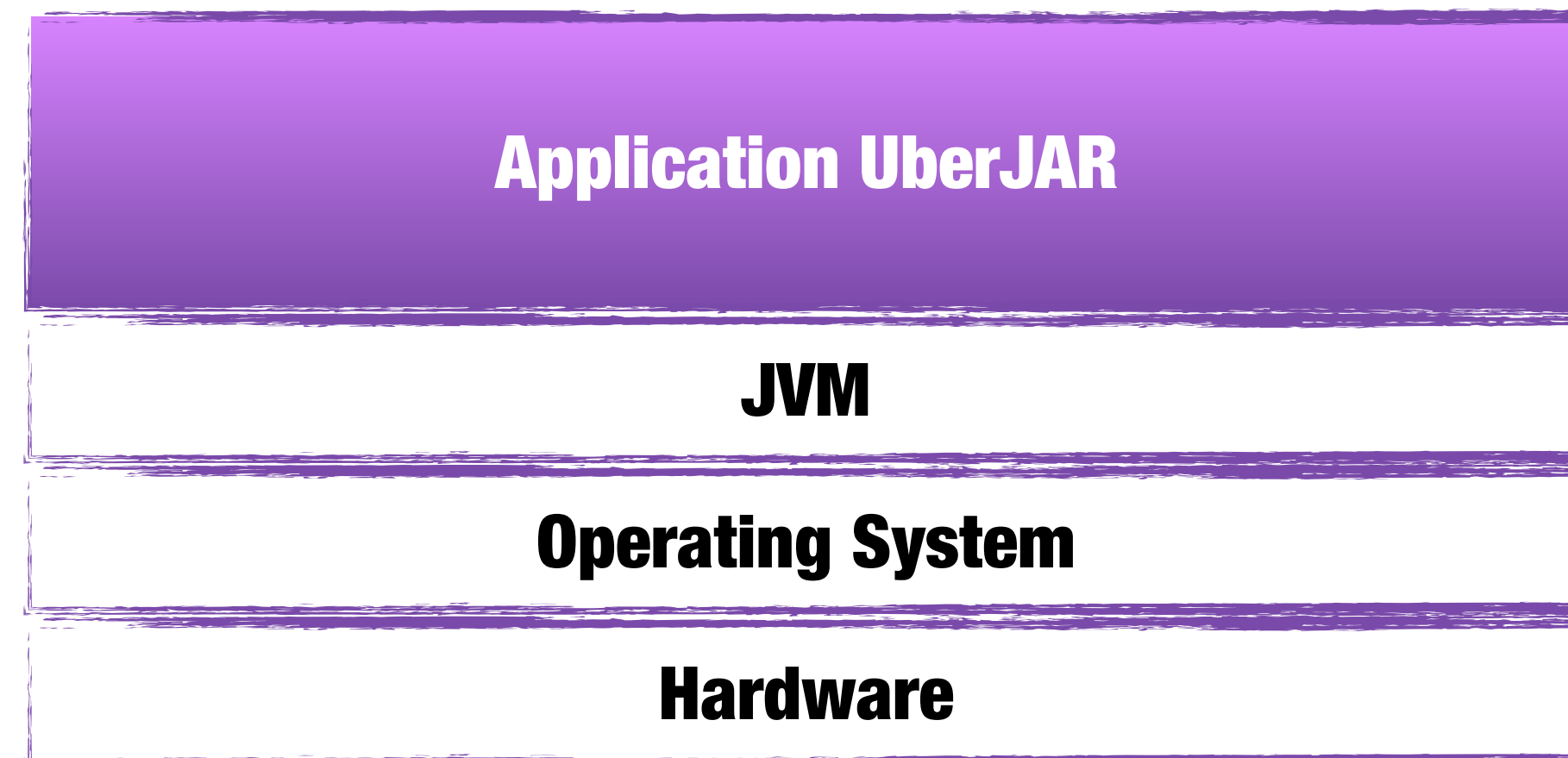
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  <scope>provided</scope>  
</dependency>
```



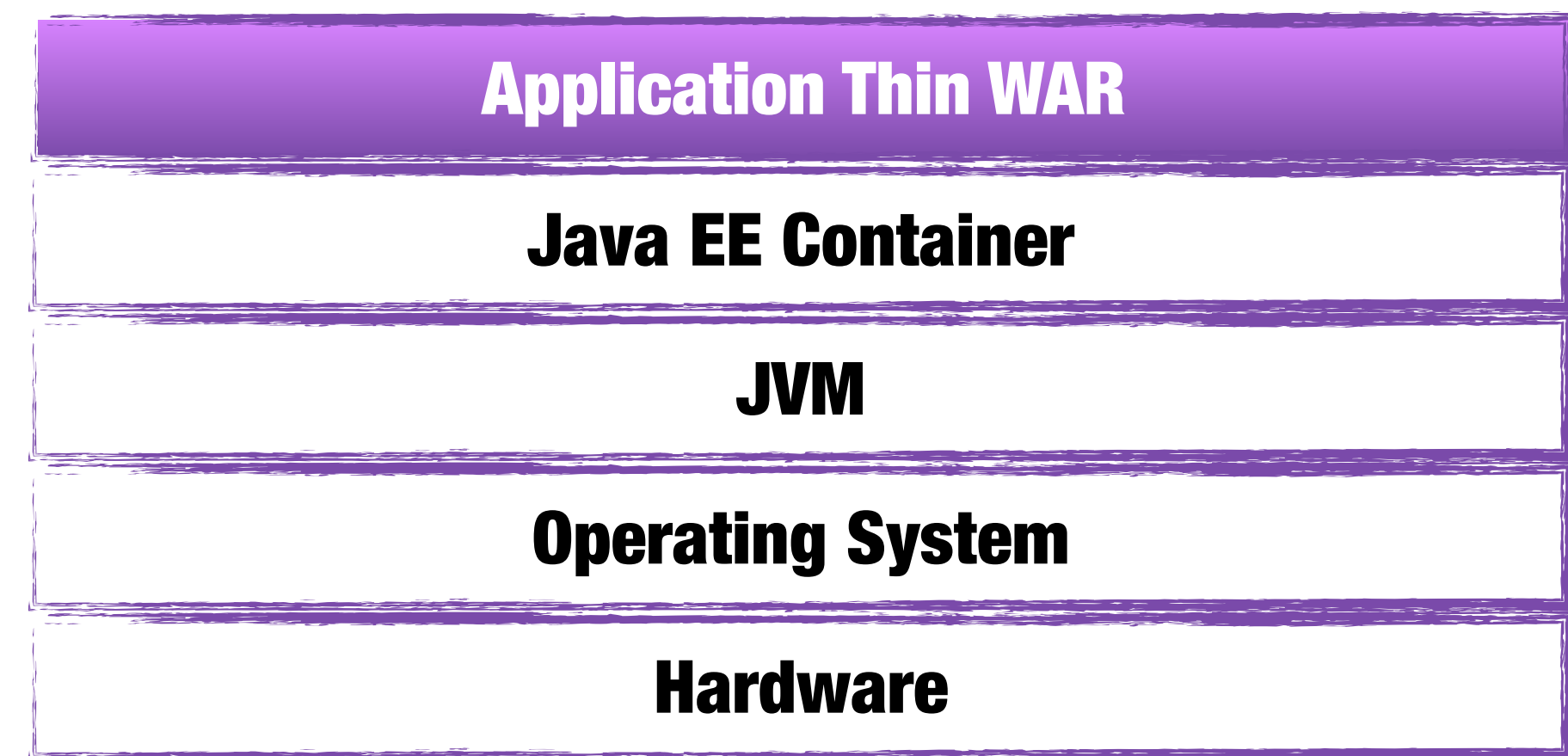

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  <artifactId>microprofile</artifactId>  
  <version>1.3</version>  
  <type>pom</type>  
  <scope>provided</scope>  
</dependency>
```

Demo

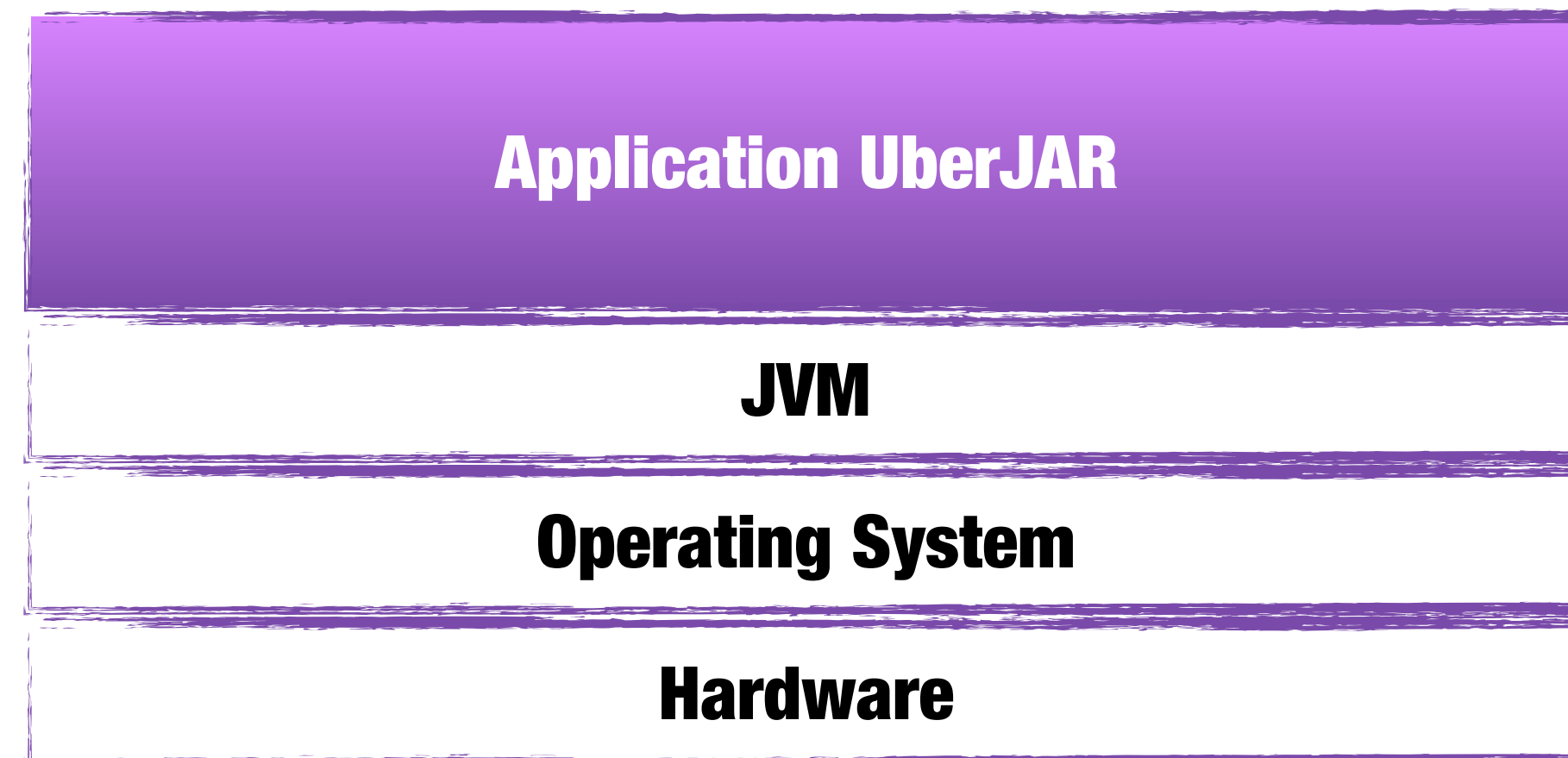
Packaging Revisited



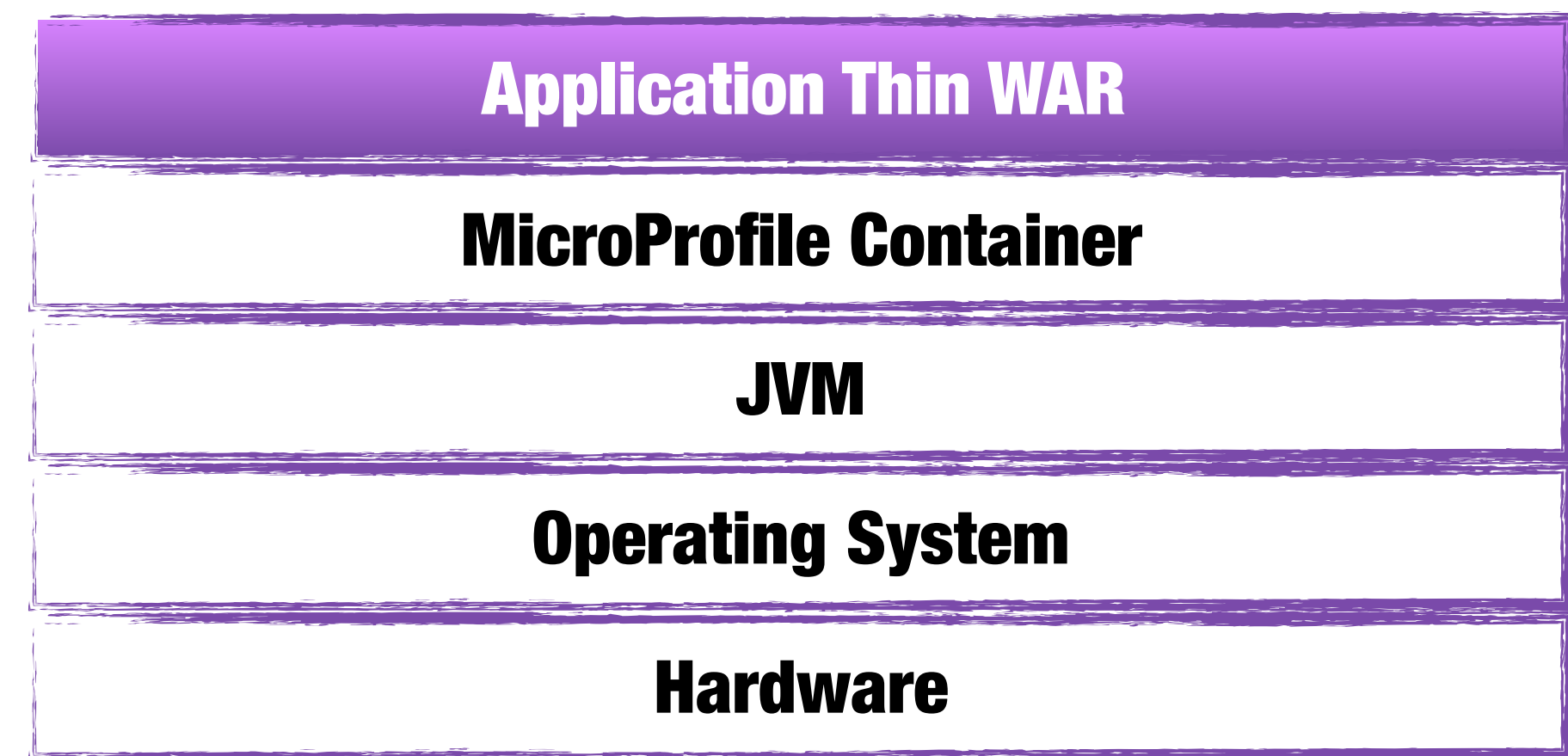
```
java -jar dukes.jar
```



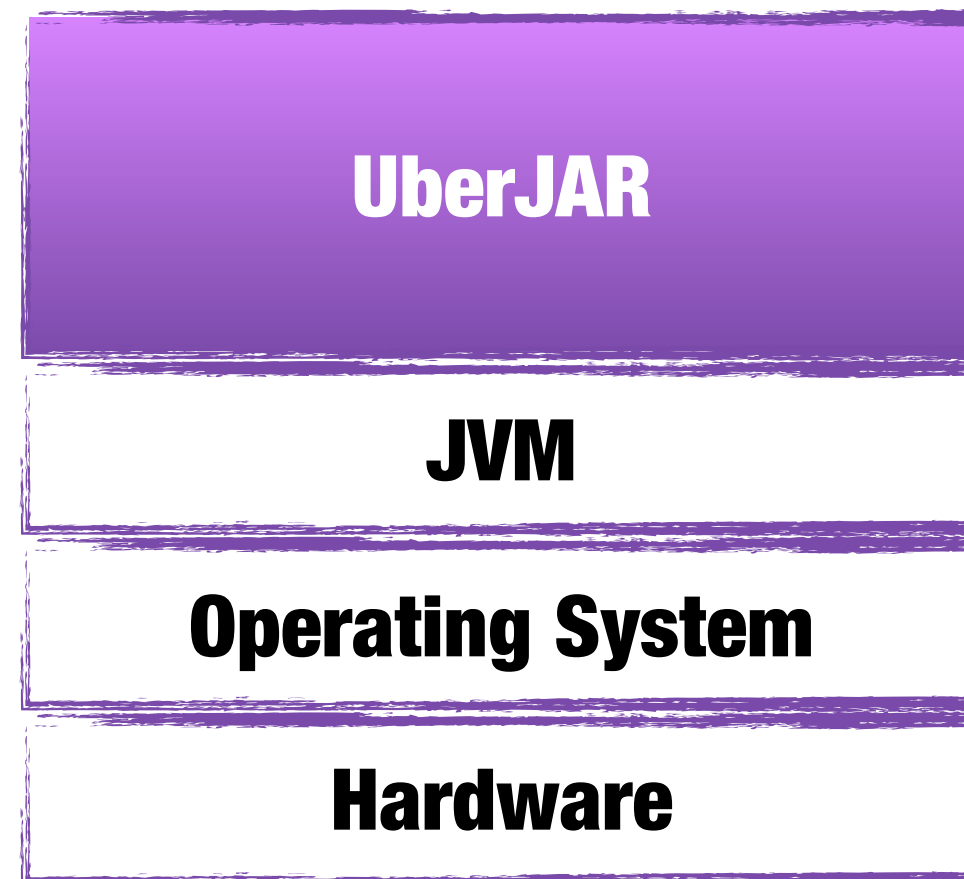
```
deployDukes.sh
```



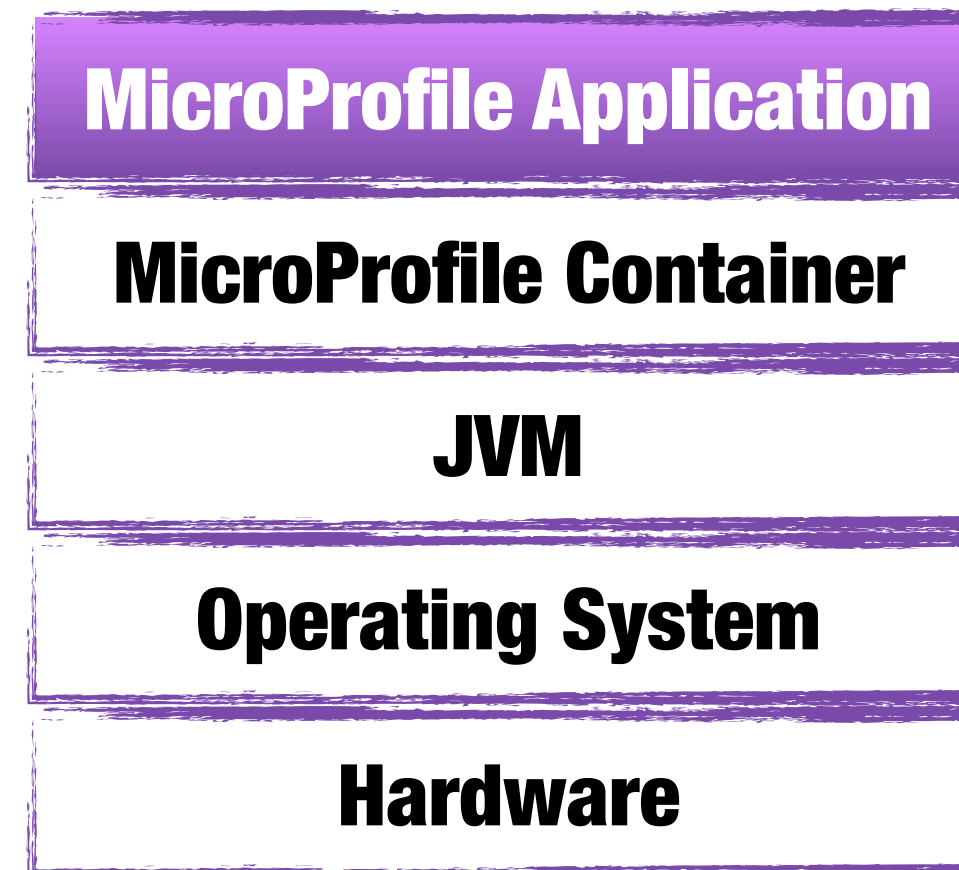
```
java -jar dukes.jar
```



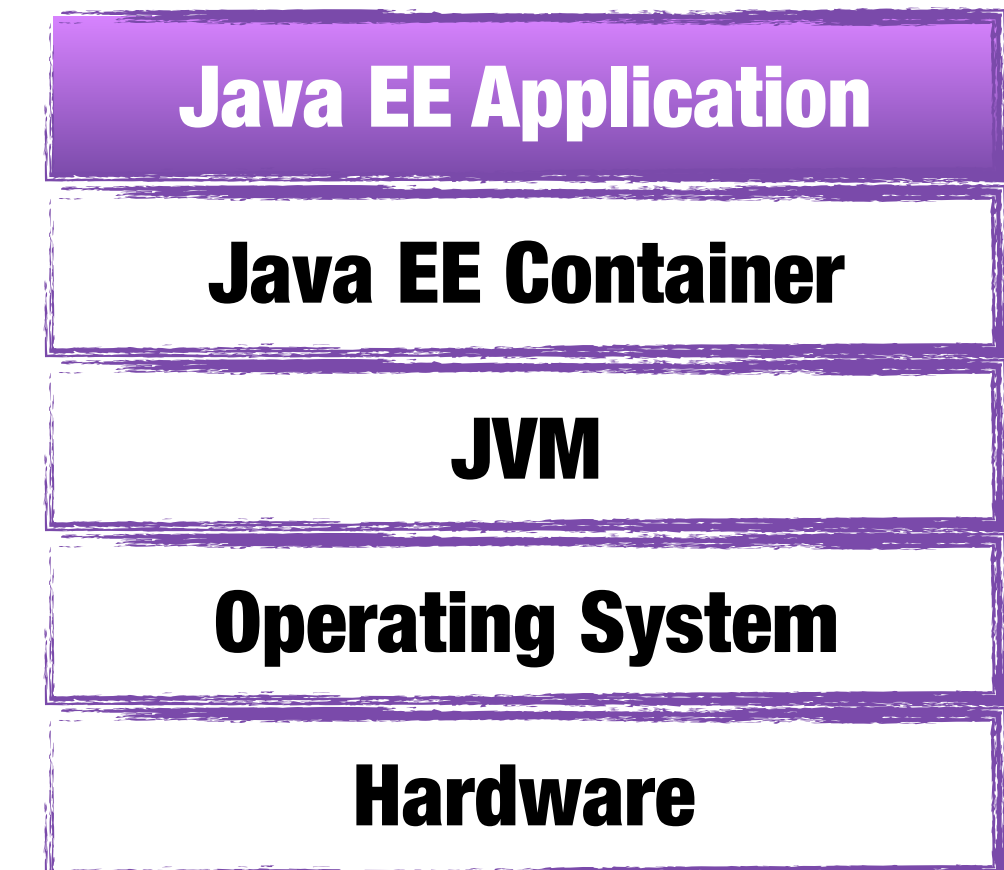
```
deployDukes.sh
```



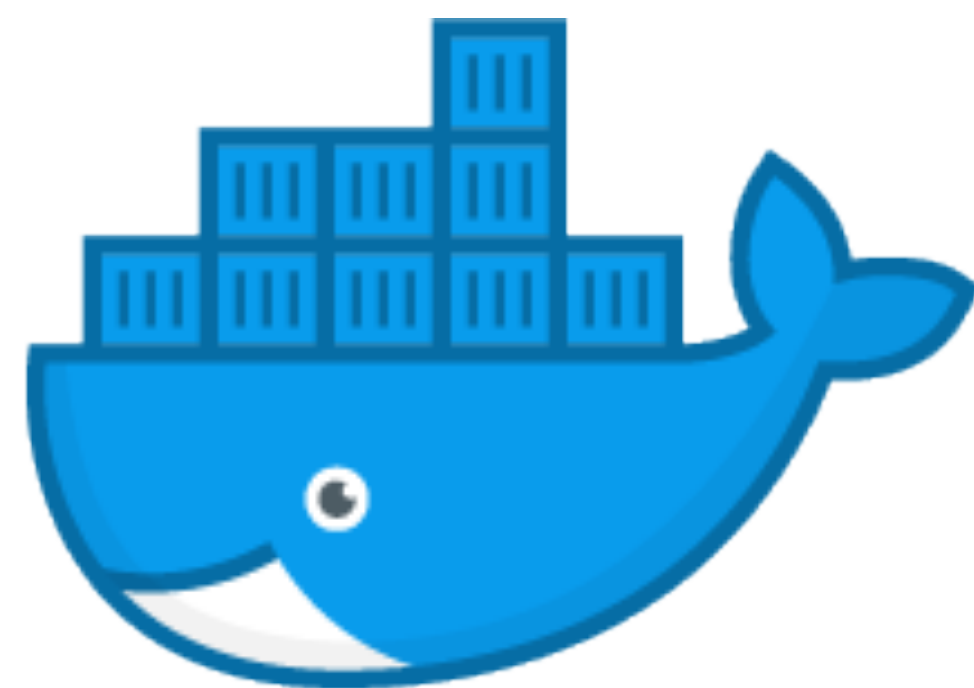
`java -jar dukes.jar`



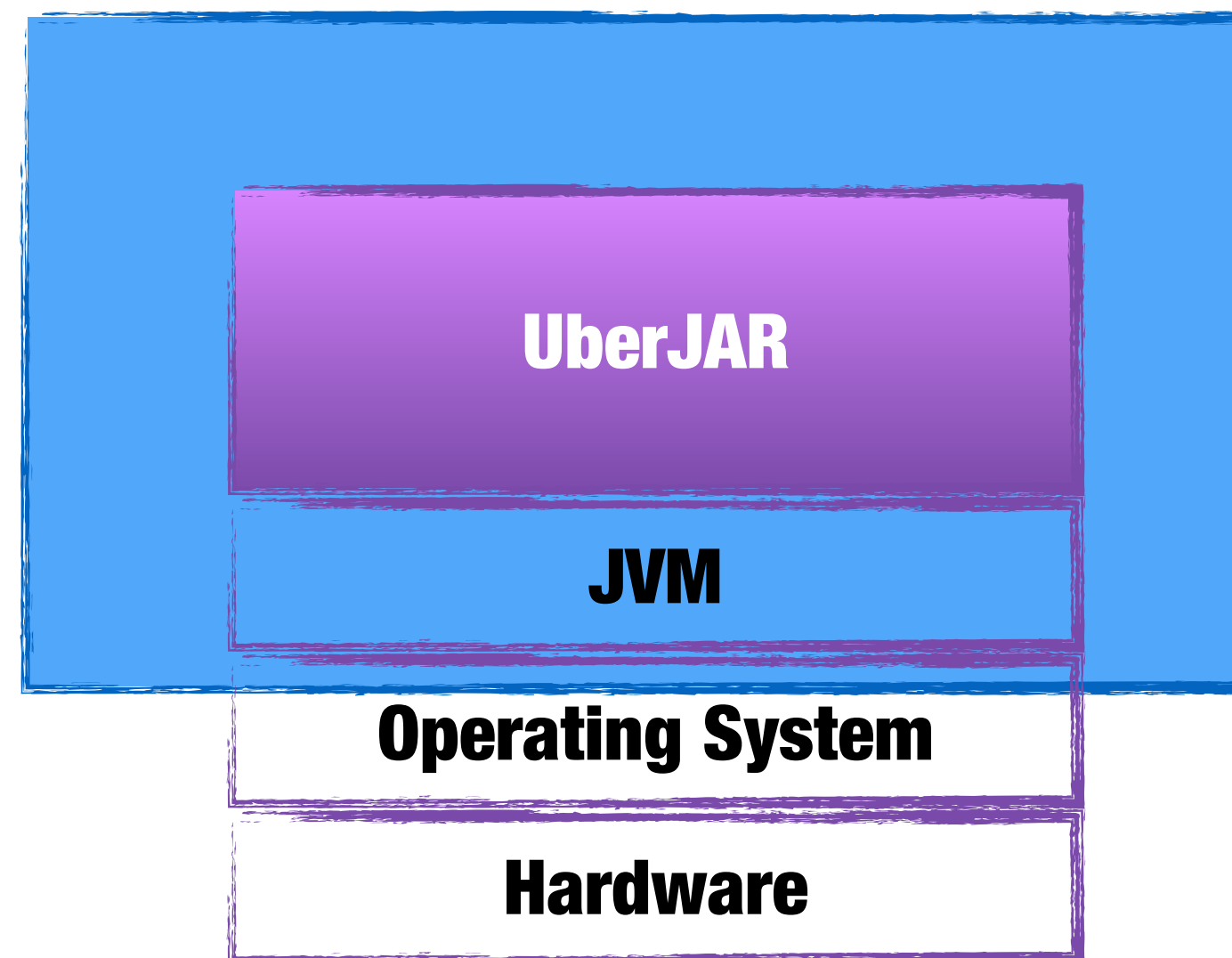
`java -jar dukes.jar`
`dukes.war`



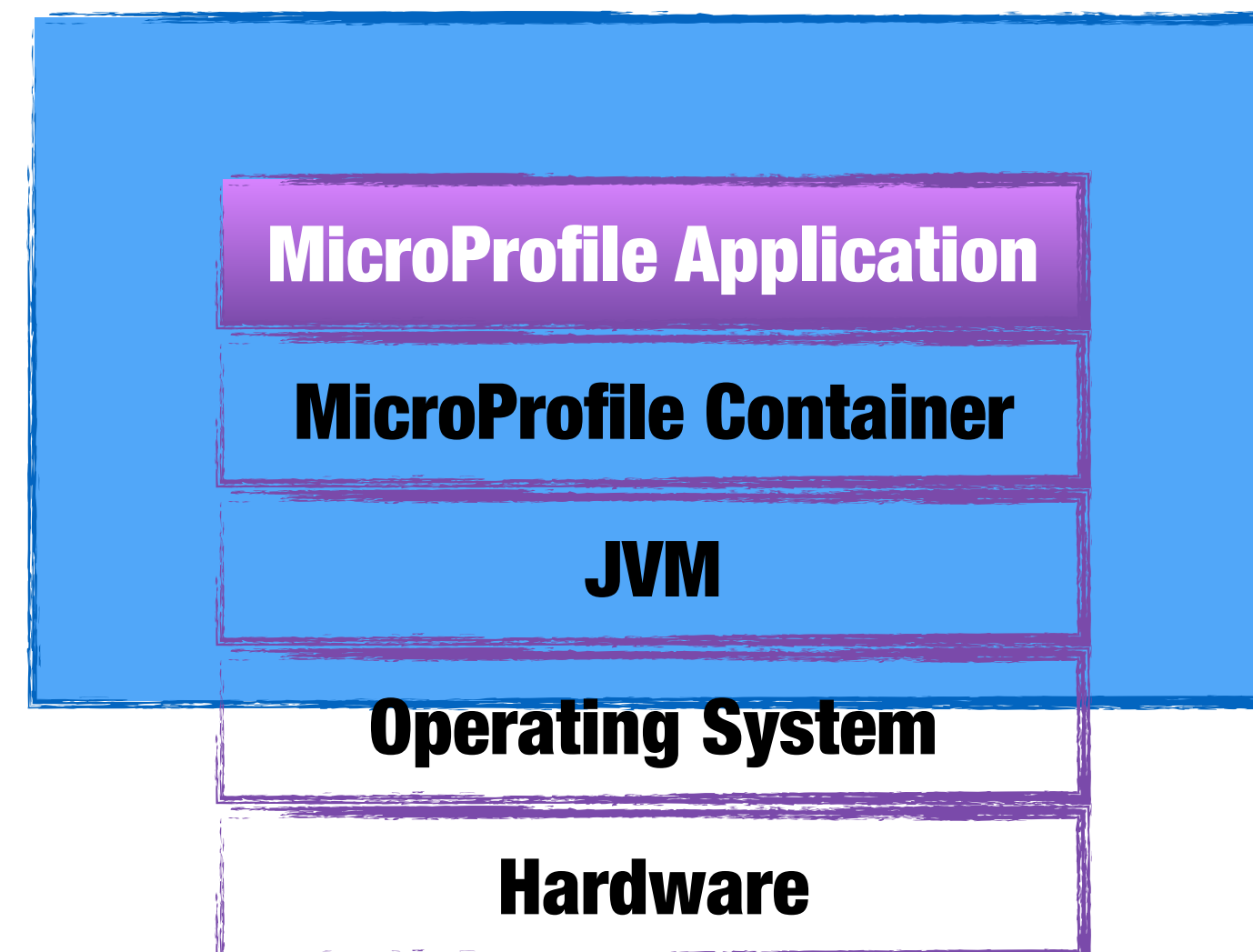
`deployDukes.sh`



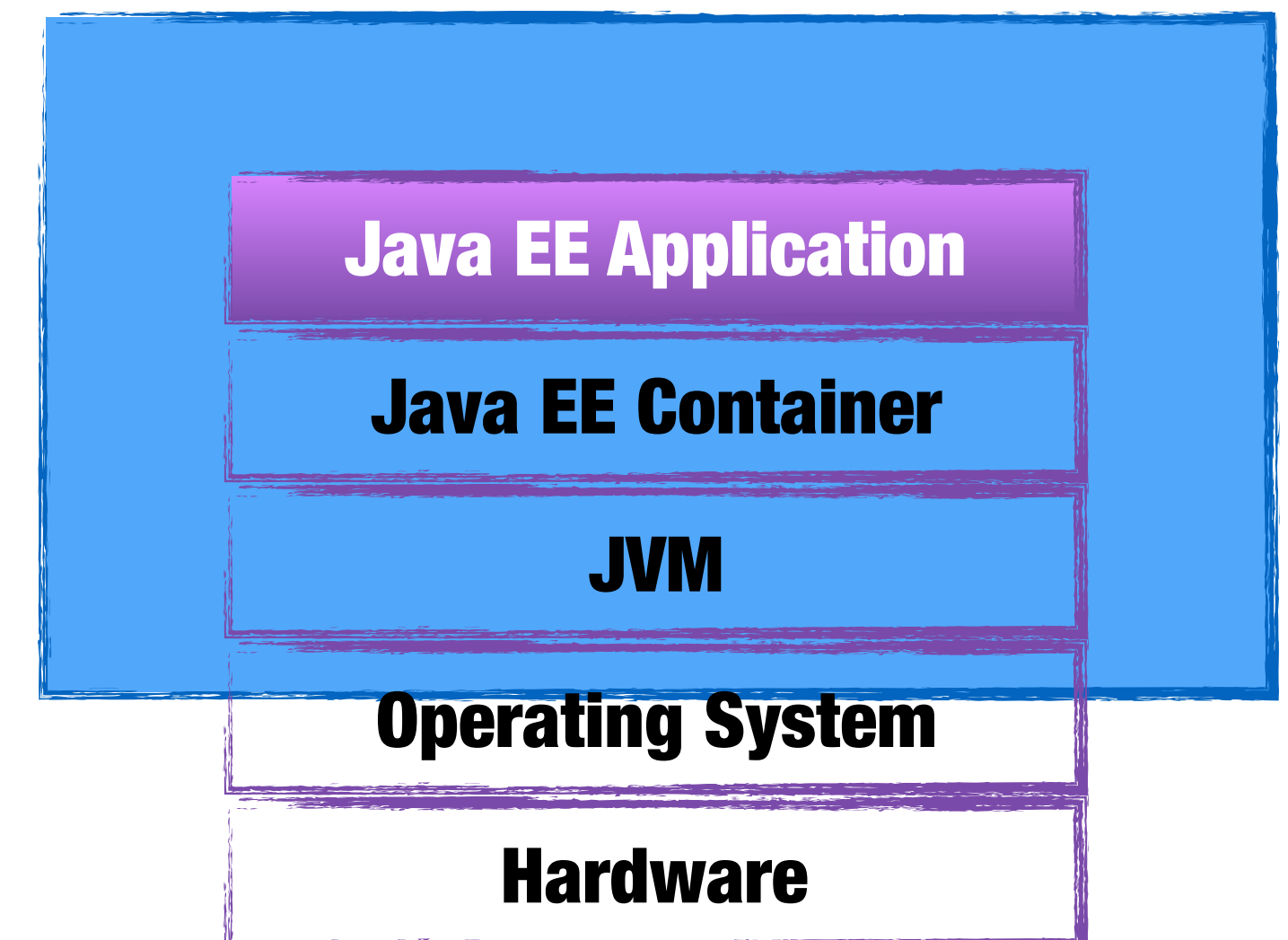
docker



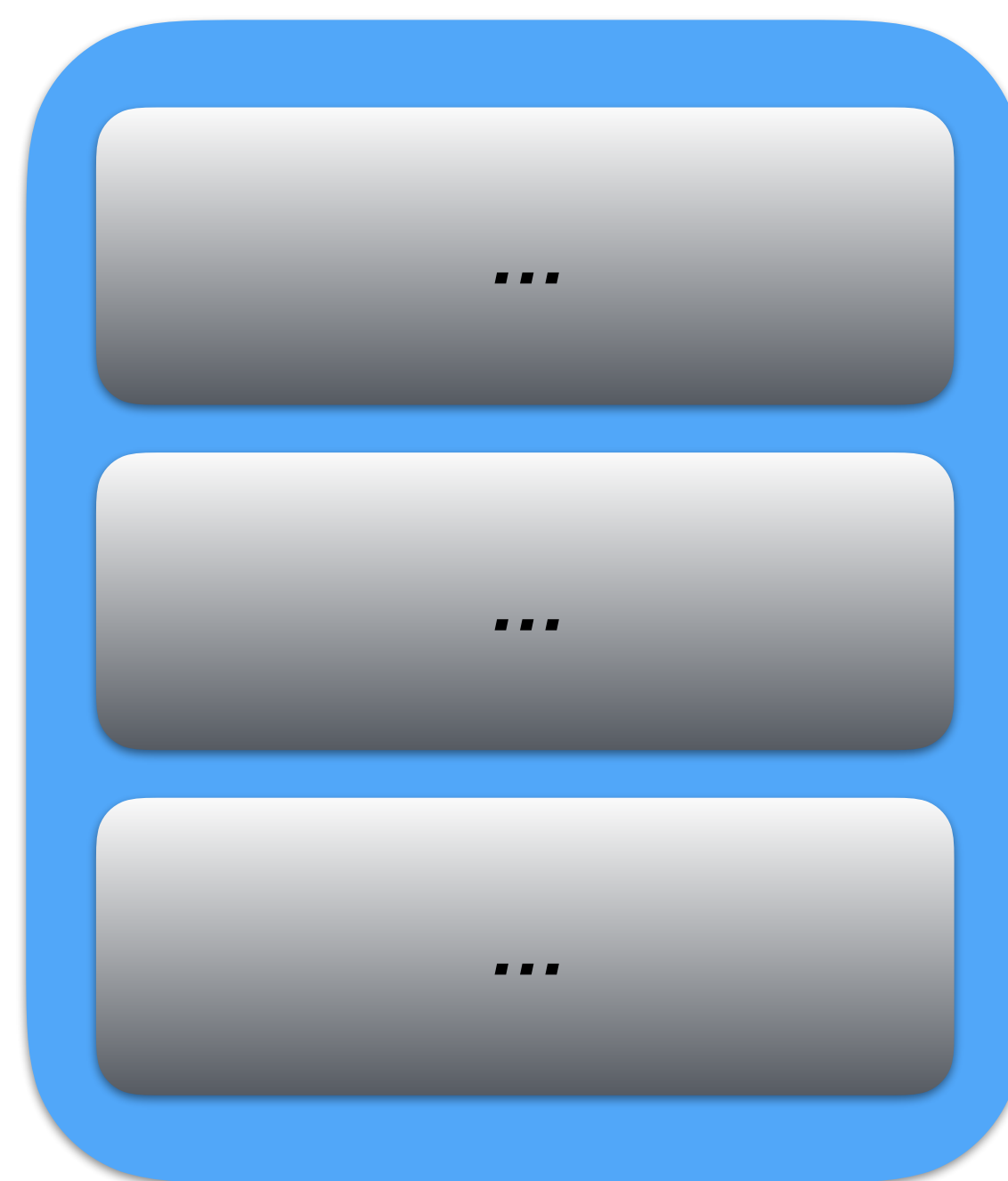
docker run dukes

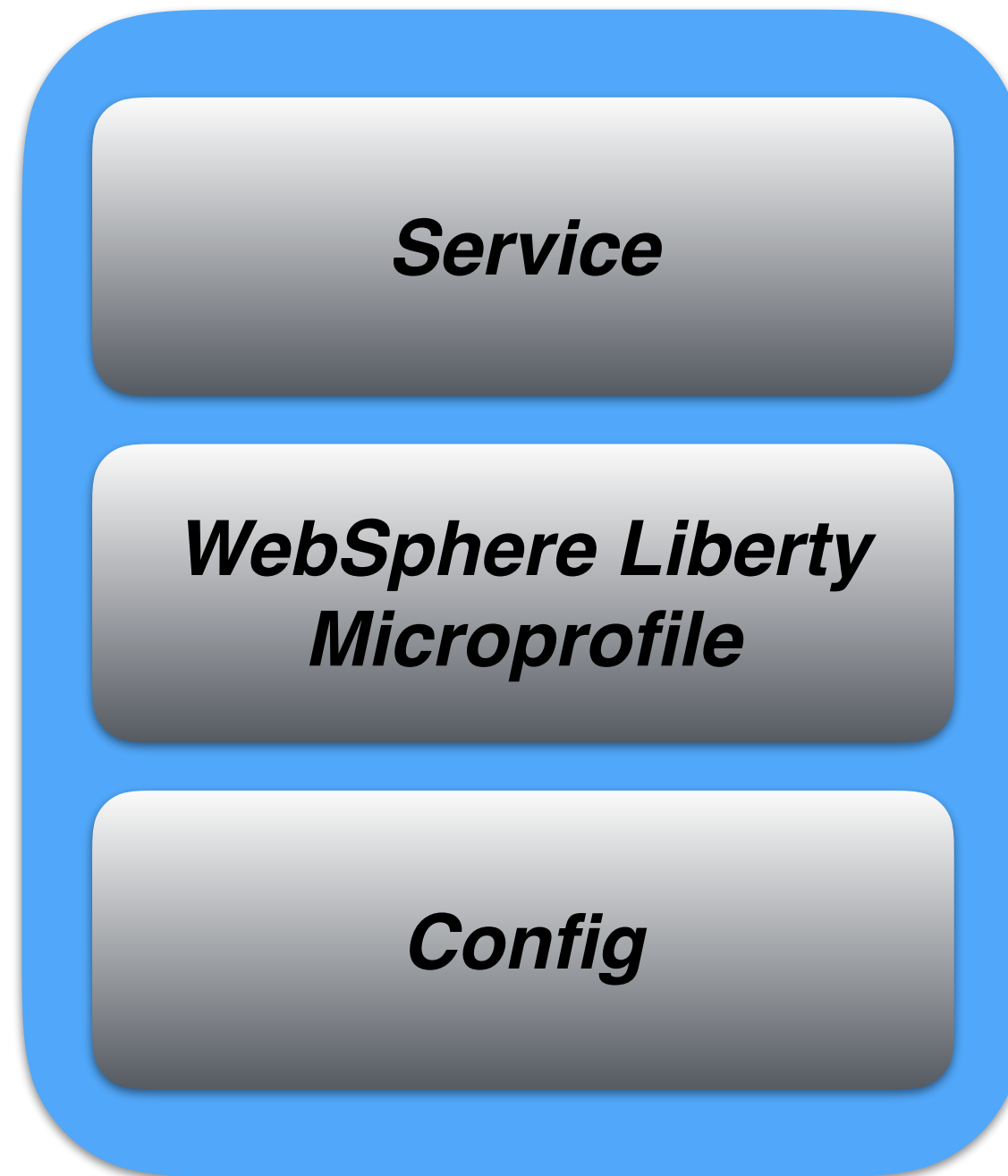
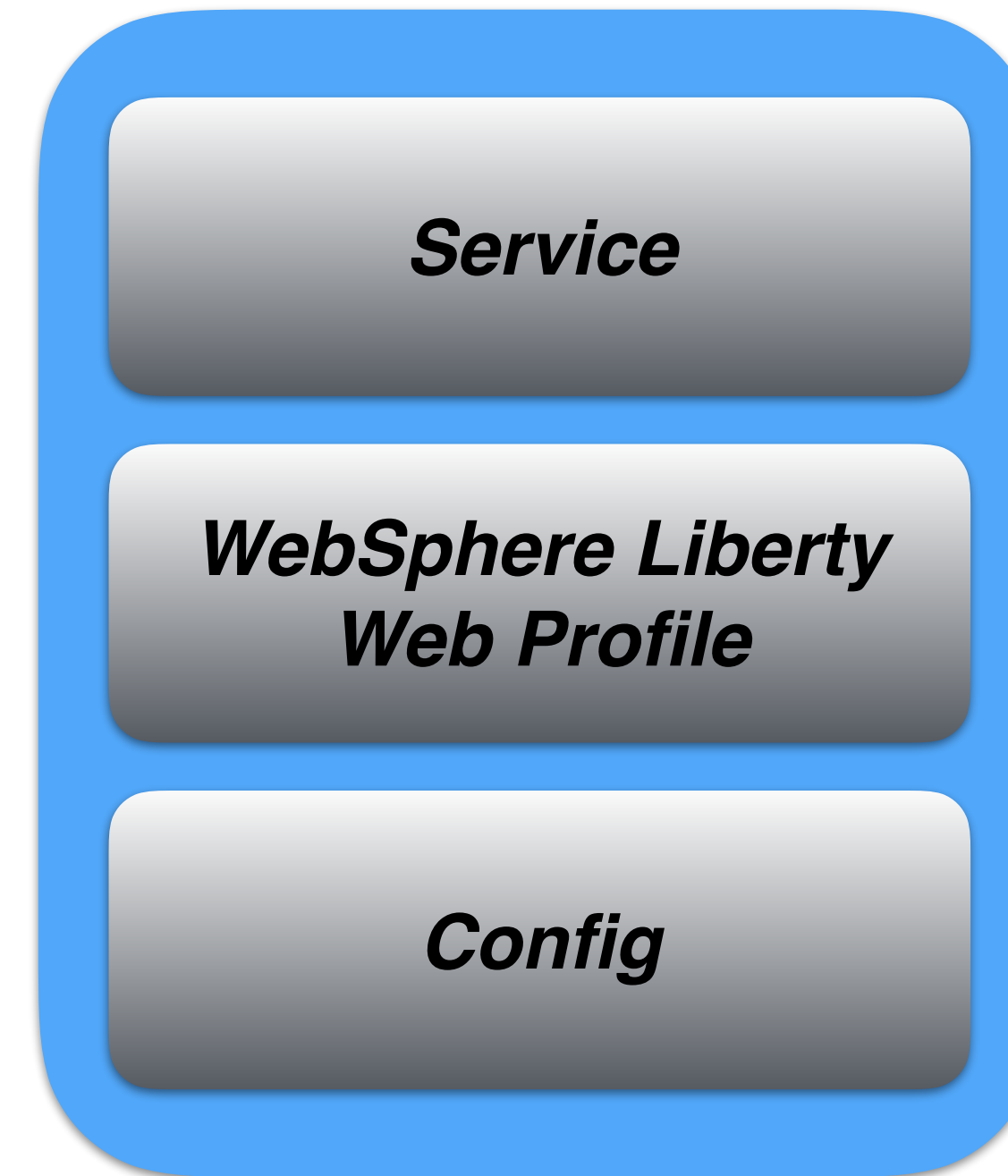


docker run dukes



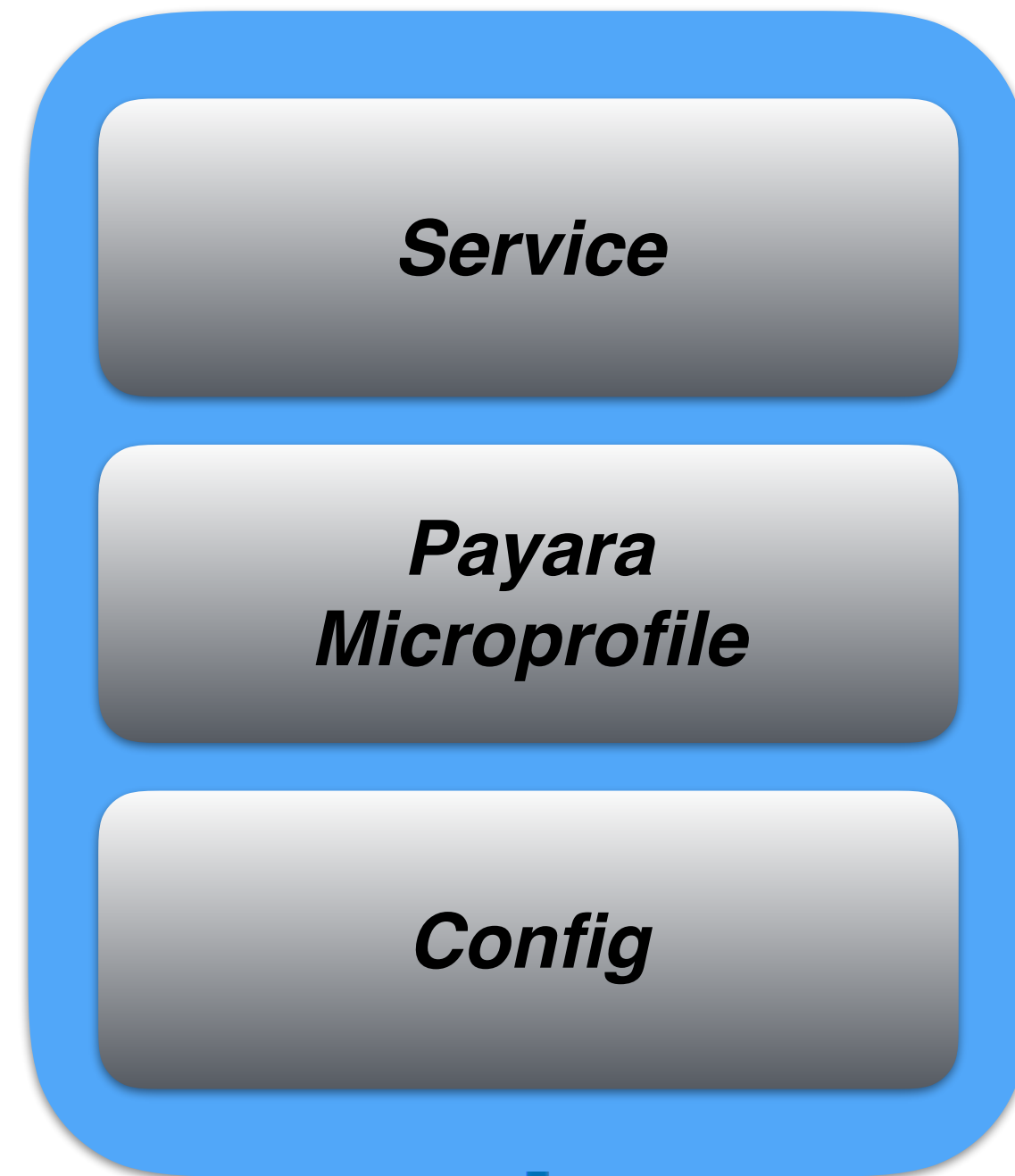
docker run dukes



198 MB**websphere-liberty:microProfile****237 MB****websphere-liberty:webProfile7**



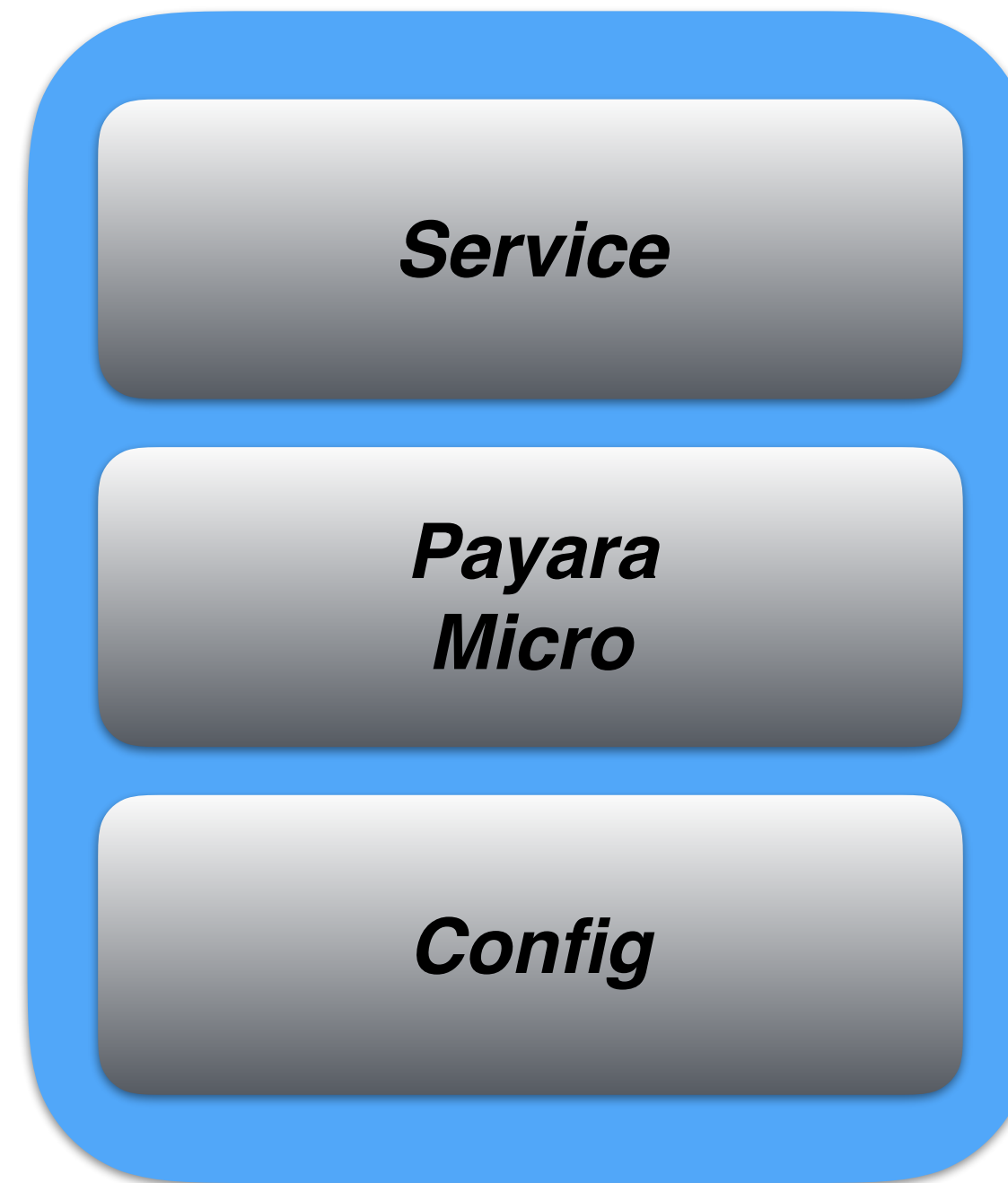
83 MB



payara/microprofile:1.0



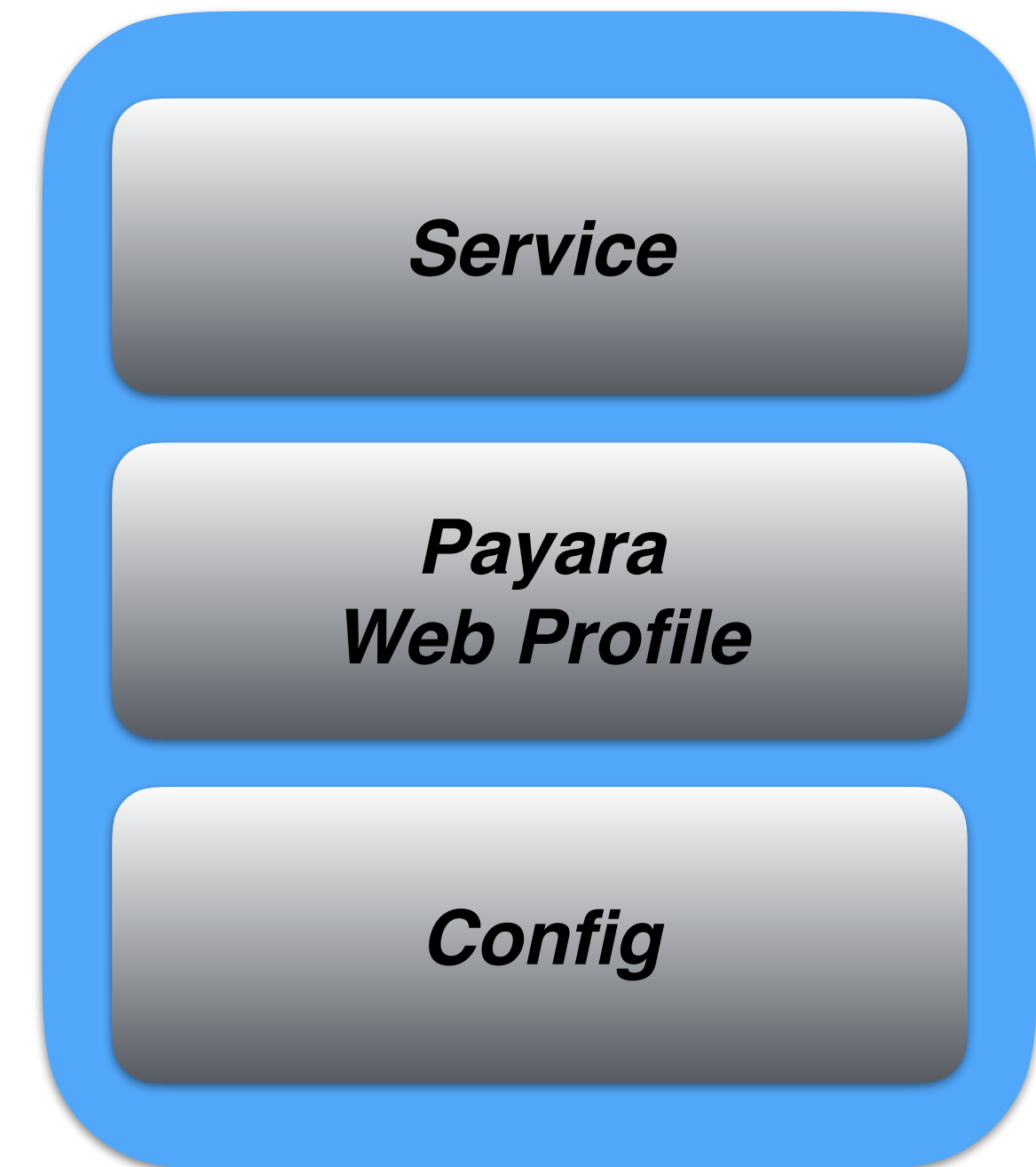
132 MB



payara/micro:173



515 MB



payara/server-web:173





149 MB



jboss/base-jdk:8



288 MB

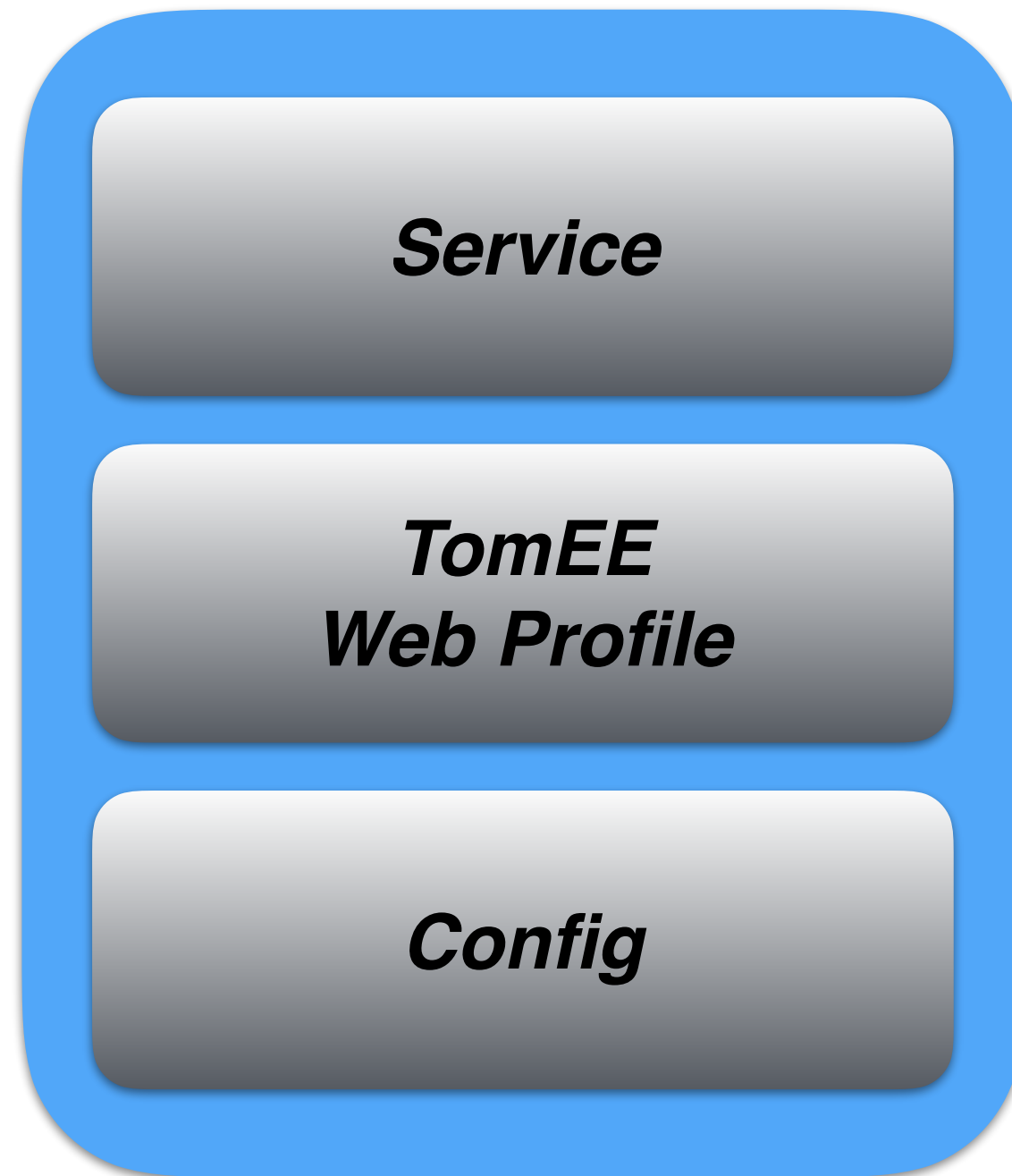


jboss/wildfly:10.1.0.Final





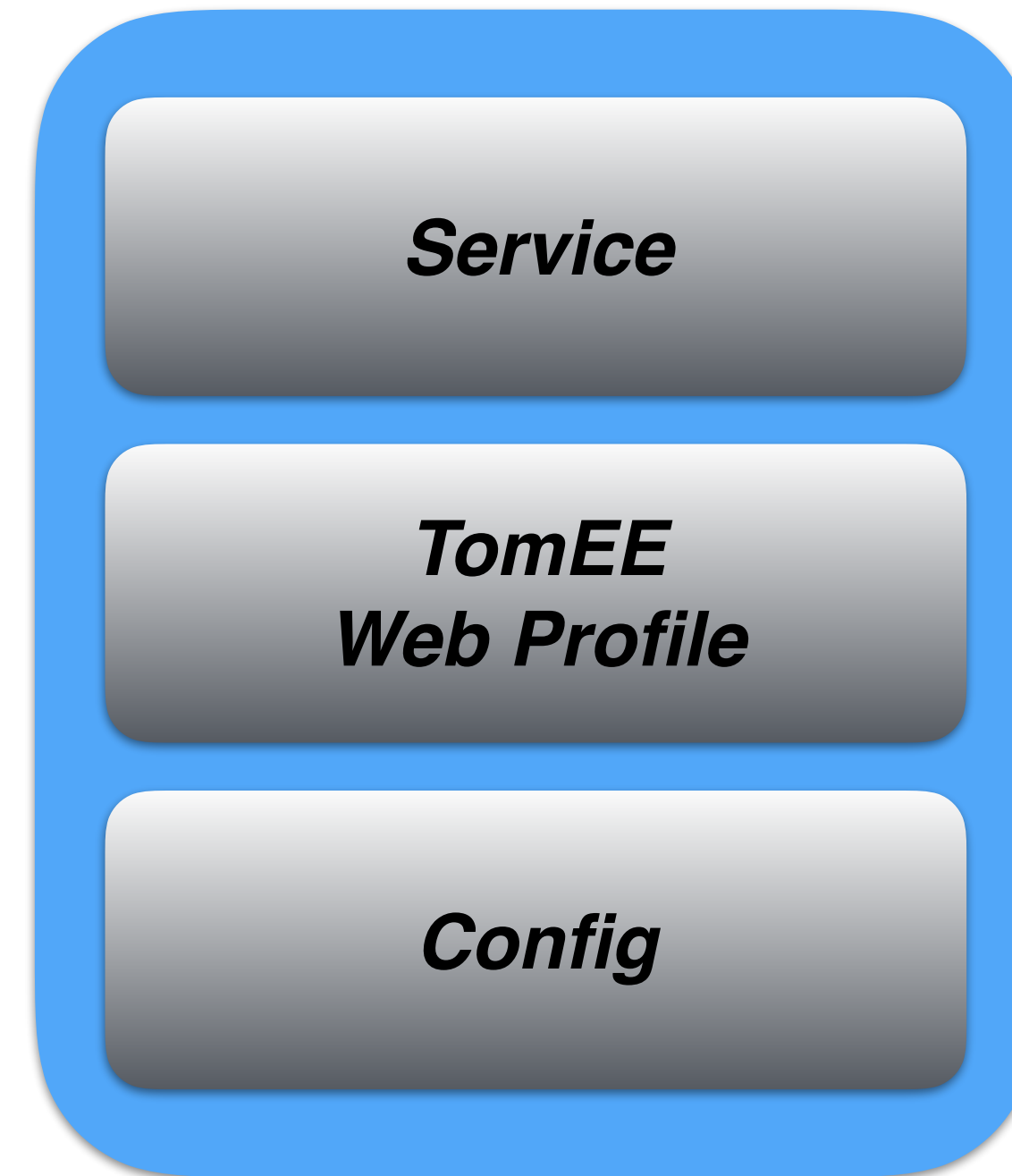
263 MB



tomee/8-jre-1.7.4-jaxrs



263 MB



tomee/8-jre-7.0.3-webprofile



Summary

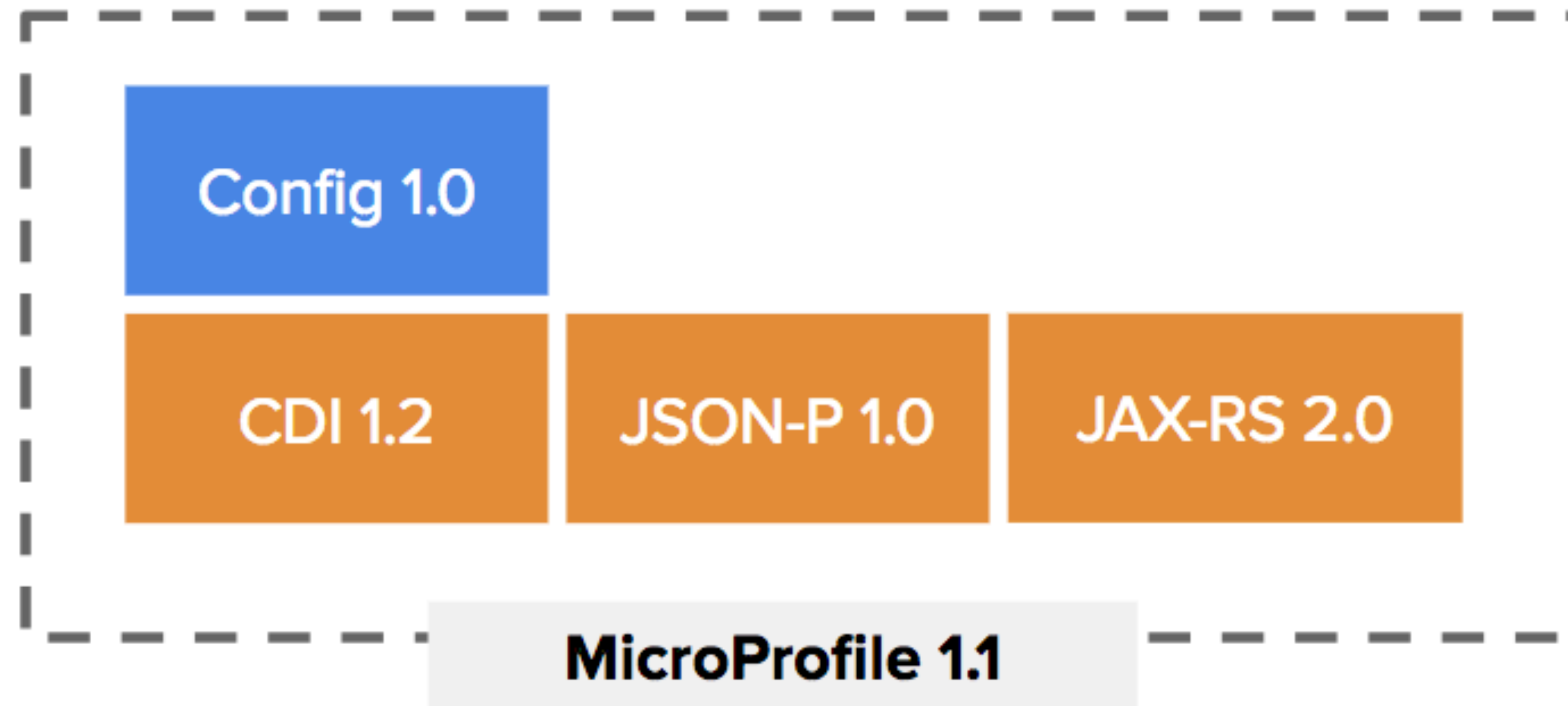
MicroProfile 1.0

September, 2016 ✓



MicroProfile 1.1

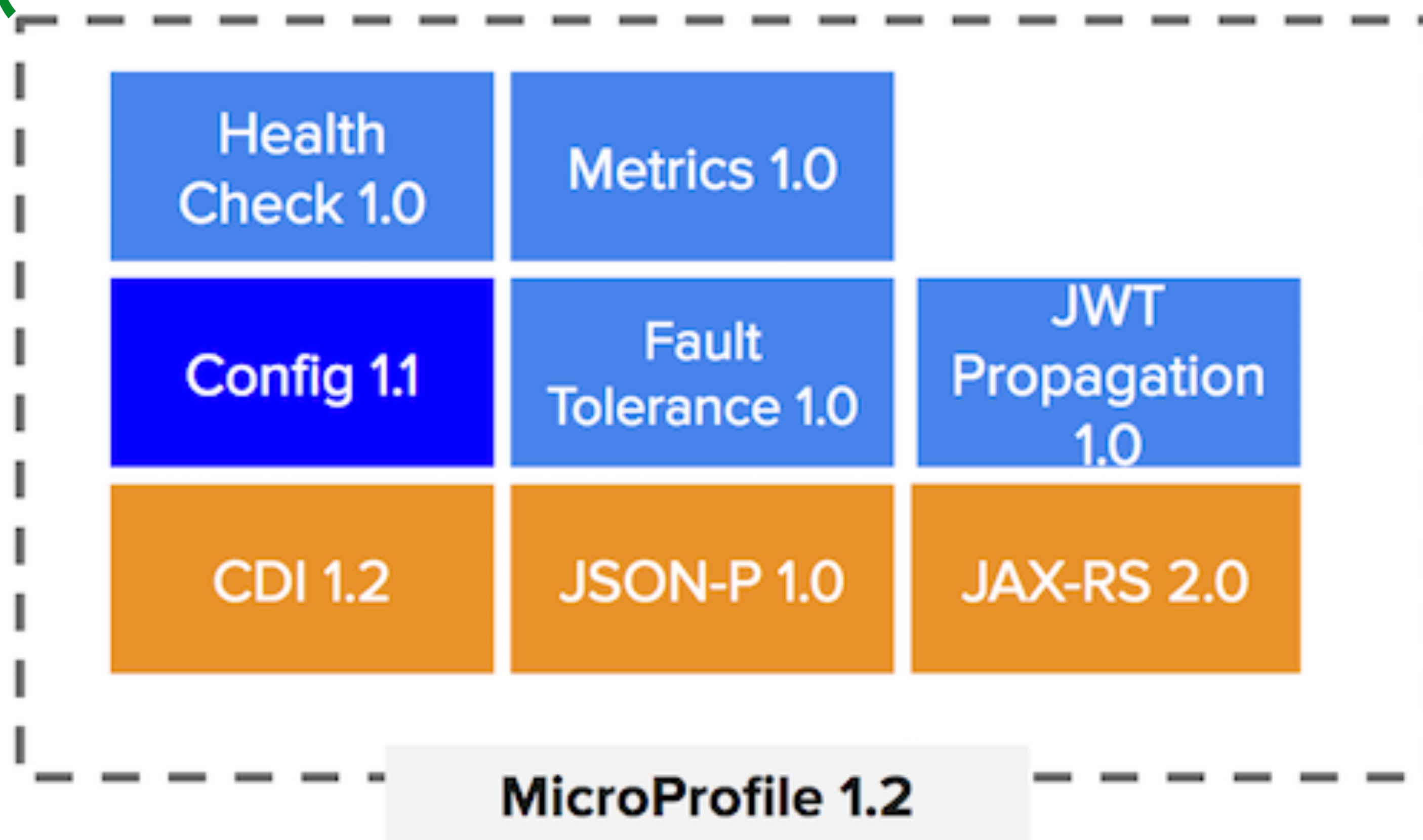
July 21, 2017 ✓



- = New
- = No change from last release

MicroProfile 1.2

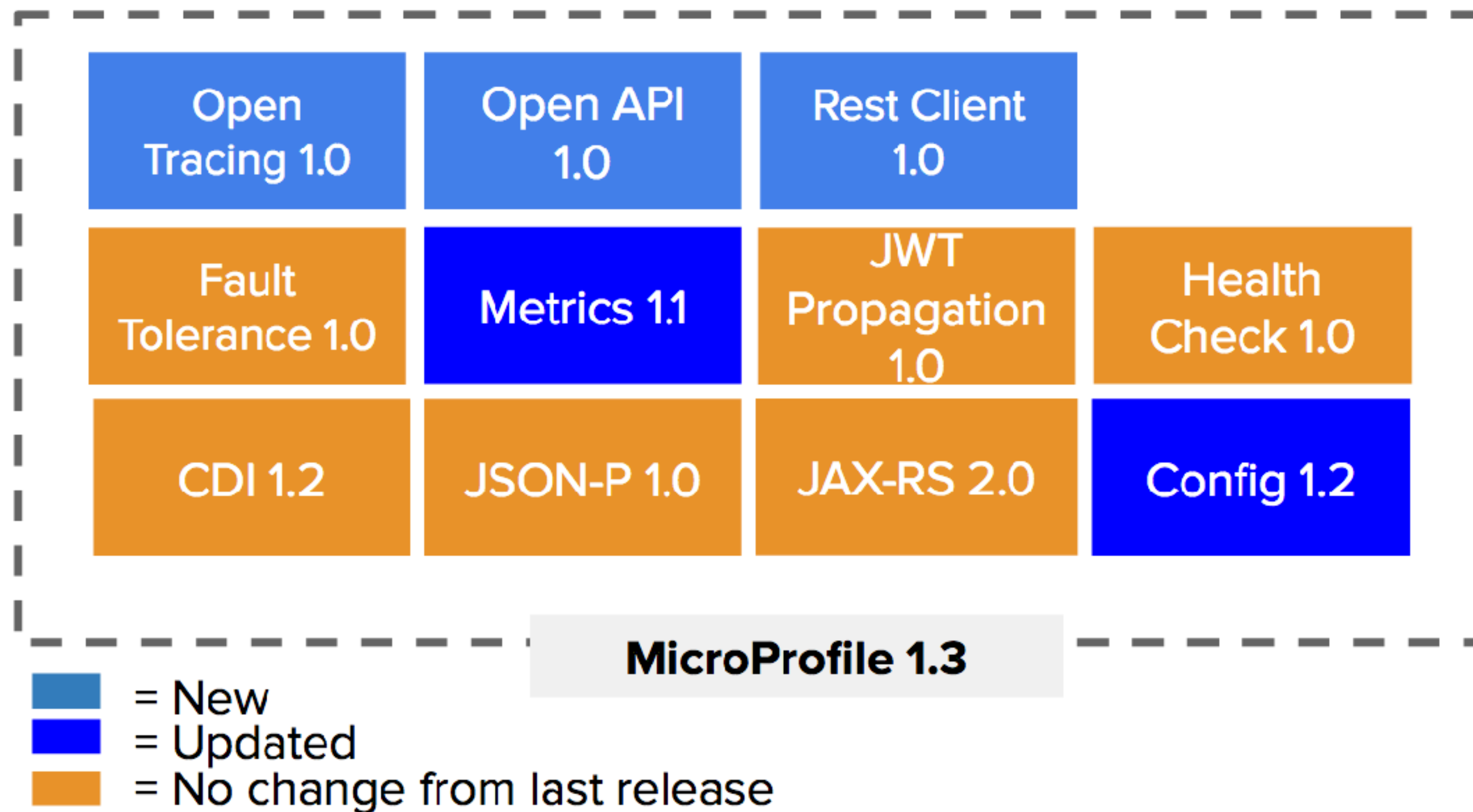
September 30, 2017 ✓



-  = New
-  = Updated
-  = No change from last release

MicroProfile 1.3

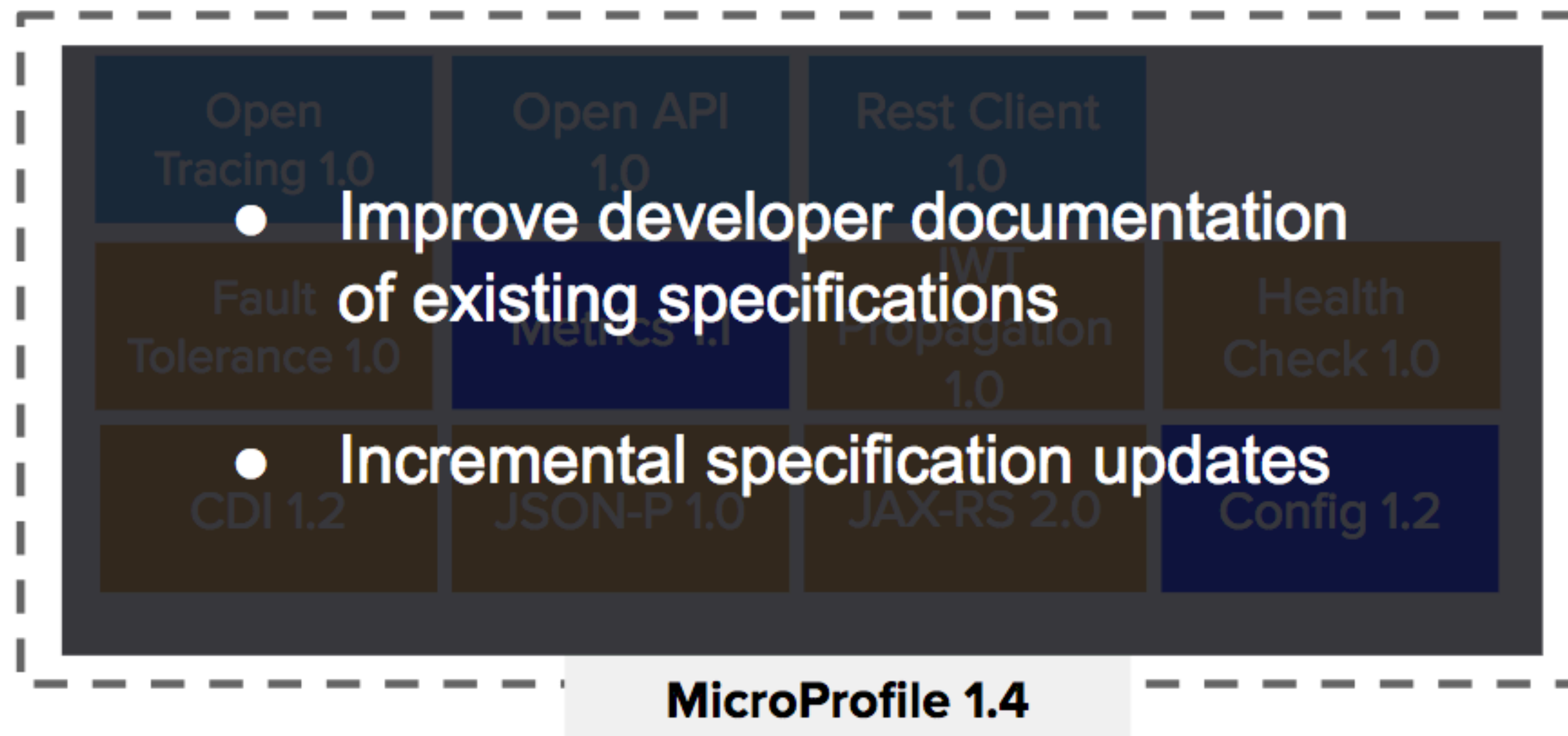
January 3, 2018 ✓



MicroProfile 1.4

March 23, 2018

Roadmap



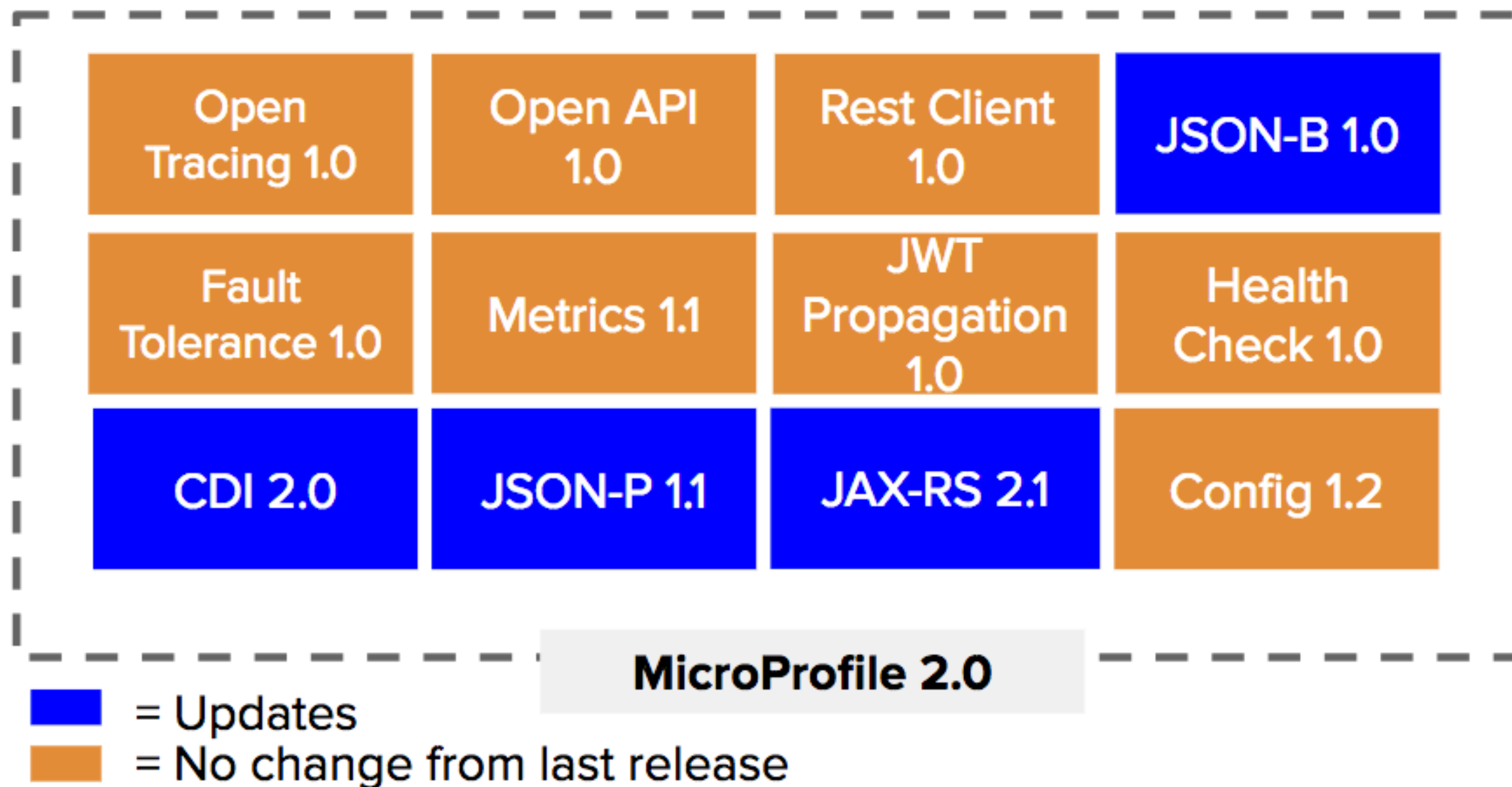
-  = New
-  = Updated
-  = No change from last release



MicroProfile 2.0

March 23, 2018

Roadmap





Java EE 8
Modernization - Simplification

September, 2017 ✓

JAX-RS 2.1

JSON-P 1.1

JSON-B 1.0

Servlet 4.0

CDI 2.0

Bean Validation 2.0

Java EE Security API 1.0

JSF 2.3

JPA 2.1

JSR 382: Configuration API 1.0



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Eclipse Enterprise for Java (EE4J) is an open source initiative to create standard APIs, implementations of those APIs, and technology compatibility kits for Java runtimes that enable development, deployment, and management of server-side and cloud-native applications. EE4J is based on the Java™ Platform, Enterprise Edition (Java EE) standards, and uses Java EE 8 as the baseline for creating new standards.

The mission of Eclipse EE4J is to create standard APIs, implementations of those APIs, and technology compatibility kits for

Eclipse MicroProfile

<http://microprofile.io>

Java EE

<https://github.com/javaee>

Eclipse Enterprise for Java (EE4J)

<https://projects.eclipse.org/projects/ee4j>

Samples

<https://github.com/ivargrimstad/dukes-microprofile>

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