

SpringBoot (Micro)service deployed on Heroku

Martin Bednář

<https://github.com/xxBedy/jopenspace2016>

Install and bootstrap application

- install SDKMAN (<http://sdkman.io>)
- `$ sdk install springboot`

Create SpringBoot project

- `spring init \`
 `--build gradle \`
 `-l groovy \`
 `-g com.vendavo.poc \`
 `-a boot \`
 `-package-name com.vendavo.poc.boot`

Build & run application

- `gradle build`
- `gradle bootRun`

Add REST dependency

- HATEOS - hypertext driven REST
- update build.gradle

```
compile('org.springframework.boot:spring-boot-starter-data-rest')
```

Create controller

```
@Controller()  
class Time {  
    @RequestMapping("/currentTime")  
    @ResponseBody  
    String currentTime() {  
        return new Date().toString();  
    }  
}
```

Test controller

- `curl -v -XGET http://localhost:8080/currentTime`

Add JPA dependency

- Add JPA dependency

```
compile('org.springframework.boot:spring-boot-starter-data-jpa')
```

- Add database driver

```
compile("com.h2database:h2")
```


Create domain class

```
@Entity(name = "invoice")
class Invoice {
    @Id
    @GeneratedValue(strategy = GenerationType.AUTO)
    Long id;
    String company
    String ico
    String address
    .....
}
```

Create repository interface

```
@RepositoryRestResource(collectionResourceRel = "invoices", path = "invoices")  
public interface InvoiceRepository extends  
    PagingAndSortingRepository<Invoice, Long>,  
    QueryByExampleExecutor<Invoice> {  
}
```

Insert invoice

```
curl -XPOST http://localhost:8080/invoices -d'{  
  "company":"JOpenspace",  
  "ico":"42",  
  "address":"Pelhrimov"  
}'
```

HAL browser

- Browse REST API provided by application
- update build.gradle
compile('org.springframework.data:spring-data-rest-hal-browser')

Security

- update build.gradle
compile('org.springframework.boot:spring-boot-starter-security')
- password displayed in log during application startup

Test

- too long for presentation :)
- GitHub <https://goo.gl/41IEqo>

Heroku support

- Heroku Procfile

web: java -Dserver.port=\$PORT -jar build/libs/boot-0.0.1-SNAPSHOT.jar

- update build.gradle

```
compileJava.dependsOn clean
task stage {
    dependsOn clean, build
}
```

Create deploy run

- heroku create
- git push heroku master
- open HAL and try some requests

Q & A

Thank you !