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M1 GLSI

## **Cours Inf3522 - Développement d'Applications N tiers**

### **Lab 4 : Création de services web RESTful avec Spring Boot**

Verifions si les dépendances sont présentes :

```
dependencies {  
    implementation 'org.springframework.boot:spring-boot-starter-data-jpa'  
    implementation 'org.springframework.boot:spring-boot-starter-web'  
    implementation 'org.springframework.boot:spring-boot-starter-data-rest'  
    developmentOnly 'org.springframework.boot:spring-boot-devtools'  
    runtimeOnly 'org.mariadb.jdbc:mariadb-java-client'  
    testImplementation 'org.springframework.boot:spring-boot-starter-test'  
    testRuntimeOnly 'org.junit.platform:junit-platform-launcher'  
}
```

Application.properties :

```
src > main > resources > application.properties  
1  spring.application.name=cardatabase  
2  spring.datasource.url=jdbc:mariadb://localhost:3306/cardb  
3  spring.datasource.username=root  
4  spring.datasource.password=  
5  spring.datasource.driver-class-name=org.mariadb.jdbc.Driver  
6  spring.jpa.generate-ddl=true  
7  spring.jpa.hibernate.ddl-auto=create-drop  
8  spring.jpa.show-sql=true  
9  # Configuration Spring Data REST  
10 spring.data.rest.base-path=/api  
11
```

CarRepository :

```
src > main > java > ugb > sat > madsj > repository > J CarRepository.java > ...
1  package ugb.sat.madsj.repository;
2
3  import java.util.List;
4  import org.springframework.data.repository.CrudRepository;
5  import org.springframework.data.rest.core.annotation.RepositoryRestResource;
6  import ugb.sat.madsj.domain.Car;
7
8  @RepositoryRestResource
9  public interface CarRepository extends CrudRepository<Car, Long> {
10     List<Car> findByBrand(String brand);
11     List<Car> findByColor(String color);
12 }
```

OwnerRepository :

```
src > main > java > ugb > sat > madsj > repository > J OwnerRepository.java > ...
1  package ugb.sat.madsj.repository;
2
3  import org.springframework.data.repository.CrudRepository;
4  import org.springframework.data.rest.core.annotation.RepositoryRestResource;
5  import ugb.sat.madsj.domain.Owner;
6
7  @RepositoryRestResource
8  public interface OwnerRepository extends CrudRepository<Owner, Long> {
9  }
10
```

Mettons a jour nos fichiers et verifions notre base de donnee :

```
MariaDB [cardb]> select * from car;
```

model_year	price	id	owner	brand	color	model	registration_number
2023	59000	1	1	Ford	Red	Mustang	ADF-1121
2020	29000	2	2	Nissan	White	Leaf	SSJ-3002
2022	39000	3	2	Toyota	Silver	Prius	KKO-0212

```
3 rows in set (0.000 sec)
```

```
{
  "_embedded": {
    "cars": [
      {
        "brand": "Ford",
        "model": "Mustang",
        "color": "Red",
        "registrationNumber": "ADF-1121",
        "modelYear": 2023,
        "price": 59000,
        "_links": {
          "self": {
            "href": "http://localhost:8080/cars/1"
          },
          "car": {
            "href": "http://localhost:8080/cars/1"
          }
        }
      }
    ]
  }
}
```

GET



http://localhost:8080/cars/1

Params Authorization Headers (6) Body Pre-request Script

Body Cookies Headers (8) Test Results

Pretty

Raw

Preview

Visualize

JSON



```
1 {
2   "brand": "Ford",
3   "model": "Mustang",
4   "color": "Red",
5   "registrationNumber": "ADF-1121",
6   "modelYear": 2023,
7   "price": 59000,
8   "_links": {
```

GET

▼

http://localhost:8080/cars/search

ParamsAuthorizationHeaders (6)BodyPre-request ScriptTestsSettings

Query Params

	Key	Value
--	-----	-------

bodyCookiesHeaders (8)Test Results

200 OK21 m

PrettyRawPreviewVisualizeJSON▼

1

2

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```
{
  "_links": {
    "findByBrand": {
      "href": "http://localhost:8080/cars/search/findByBrand{?brand}",
      "templated": true
    },
    "findByColor": {
      "href": "http://localhost:8080/cars/search/findByColor{?color}",
      "templated": true
    },
    "self": {
      "href": "http://localhost:8080/cars/search"
    }
  }
}
```





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