

Accessing Data with Spring Boot and H2



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Overview



Data access

Benefits of Spring with JPA

Default configurations

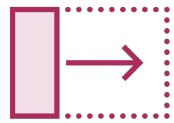
Querying using repositories



H2 Database



H2 Database



Open source database written in Java



In-memory database



Good for POCs, dev environments, simple database



Administer via the H2 console



```
<dependency>  
    <groupId>com.h2database</groupId>  
    <artifactId>h2</artifactId>  
    <scope>runtime</scope>  
</dependency>
```

H2 Dependency
Auto-configures H2 related properties



H2 Defaults

spring.datasource.url=jdbc:h2:mem:testdb

spring.datasource.driverClassName=org.h2.Driver

spring.datasource.username=sa

spring.datasource.password=

spring.h2.console.enabled=false



Override Defaults

spring.h2.console.enabled=true

spring.h2.console.path=/h2

spring.datasource.url=jdbc:h2:mem:bugtracker



ORM with JPA



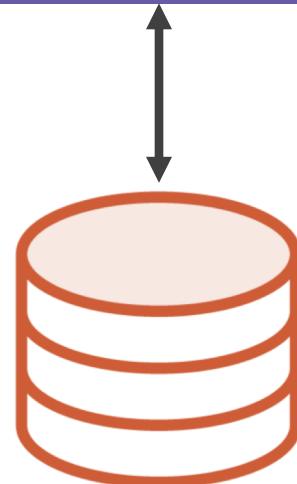
ORM with JPA

Spring Data JPA



Java Persistence API (JPA)

Java Database Connectivity (JDBC)



```
<dependency>
    <groupId>org.springframework.boot</groupId>
    <artifactId>spring-boot-starter-data-jpa</artifactId>
</dependency>
```

Spring Data
Hibernate, Spring Data JPA, Spring ORM



Entities



Entities

```
package com.pluralsight.entity;

import javax.persistence.*;

@Entity
public class Application {

    @Id
    @GeneratedValue(strategy = GenerationType.AUTO)
    @Column(name="application_id")

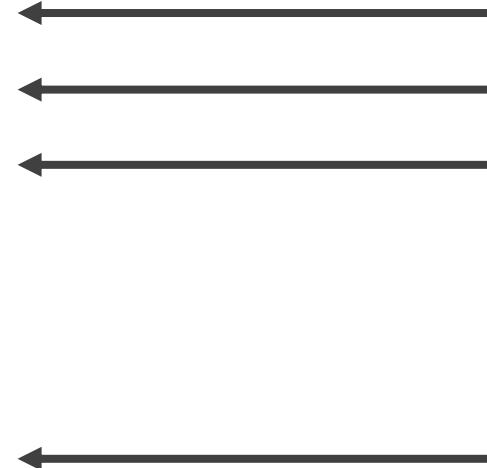
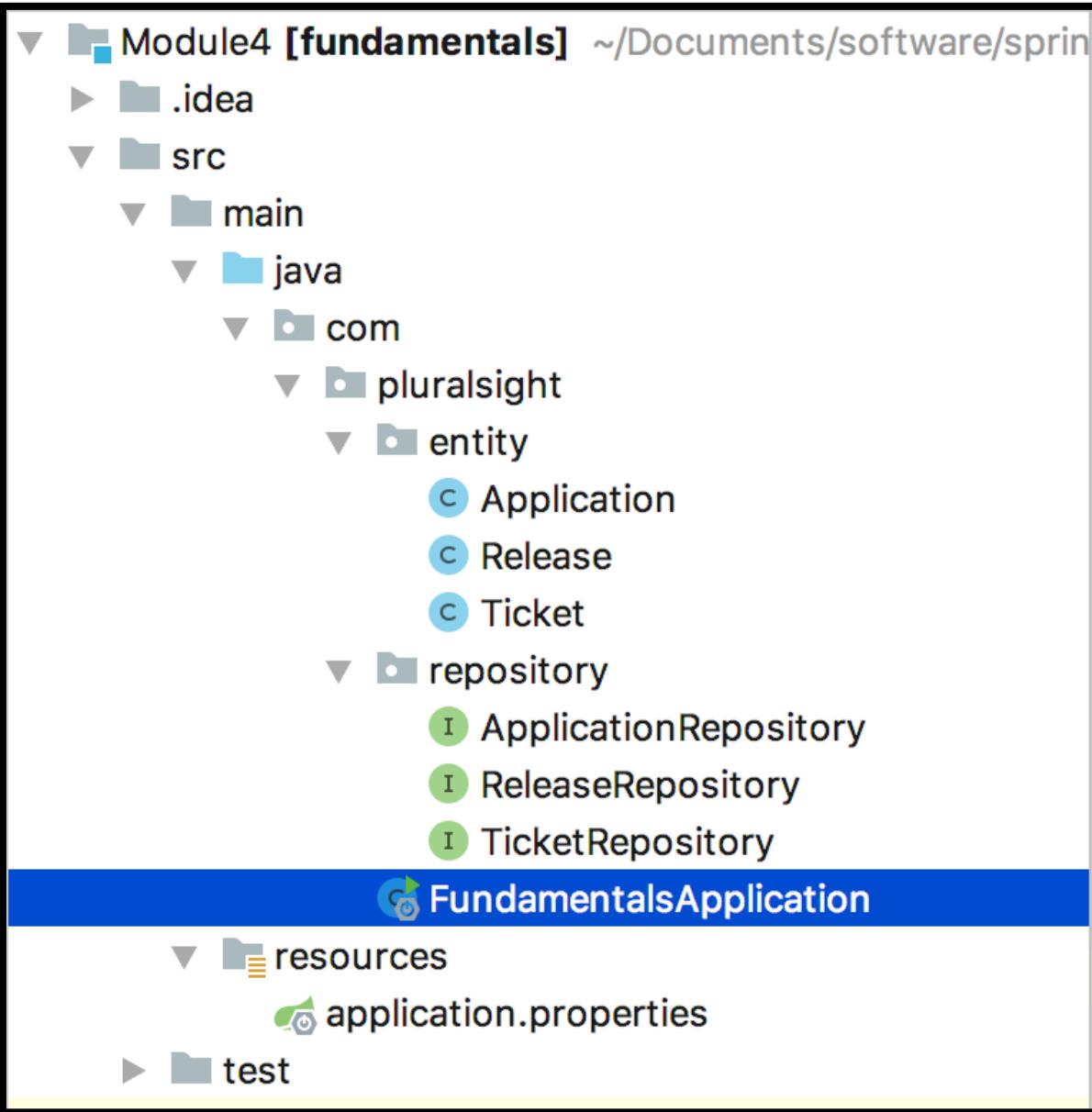
    private Integer id;

    @Column(name = "app_name", nullable = false)

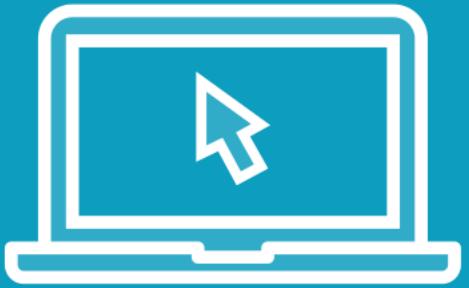
    private String name;
```



Entity Scanning



Demo



H2 database access

Spring Data JPA

Entity Scanning

Repositories



Summary



H2 data access using Spring Boot

ORM with JPA

Benefits of Spring with JPA

Entities

Simple queries with Repositories

