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

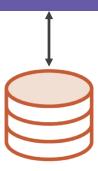


ORM with JPA



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

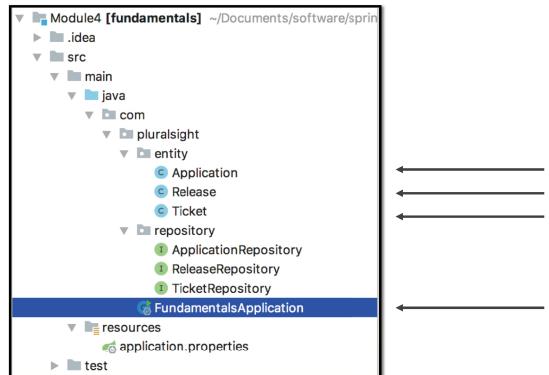


Entities

```
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







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

