

Spring Framework: Spring Data JPA

INTEGRATING AND USING SPRING DATA JPA IN AN APPLICATION



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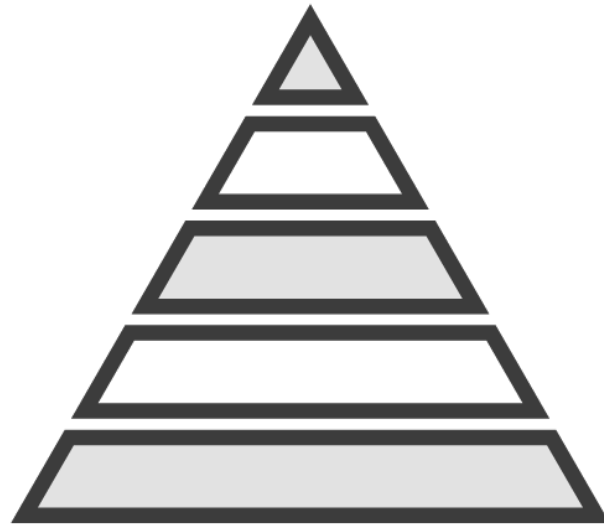
Clip 2 - Demo Placeholder

What Can Spring Data JPA Do?

What Can Spring Data JPA Do?

```
public interface SessionRepository extends  
    JpaRepository<Session, Long> {  
  
    public List<Session>  
        findBySessionNameContaining(String name);  
}
```

What is Spring Data JPA?



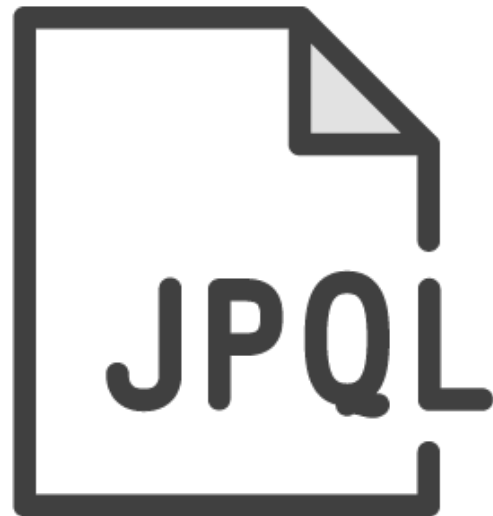
Enhances JPA



Simplifies Data Tier



JpaRepository



Query DSL

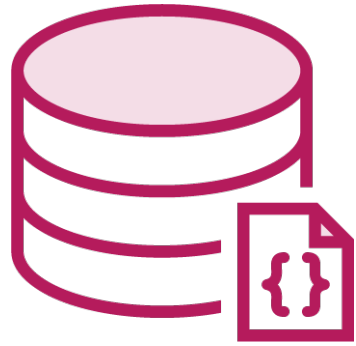


Data Tier



Use Where Needed

JPA Primer



JPA (Java Persistence API)

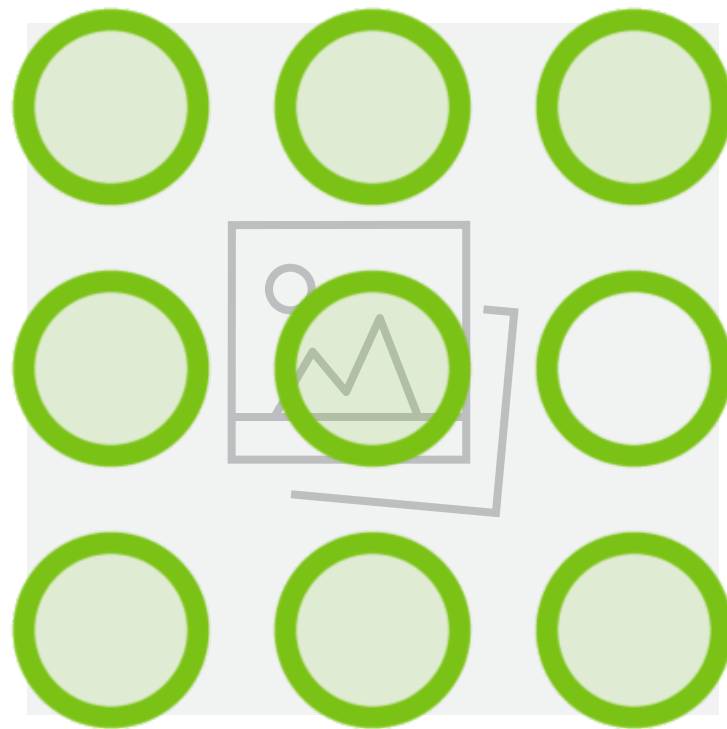
ORM (Object Relation Mapping) - Relational Tables <-> Software Objects

session_id	session_name	
2	A Better Way to Access Data with Spring Data	
3	A Deep Dive Into Spring IoC	
4	Building RESTful APIs with Spring Data Rest	
5	Spring Integration Quick Start	
6	Building Microservices with Spring	
7	Spring Cloud Primer	
8	Spring Boot in 30 Minutes	
9	Testing Spring Applications	
10	Writing Your First Advice with Spring AOP	
11	IntelliJ IDEA Tips and Tricks	
12	Functional Programming in Java	
13	Making the Switch from Java to Kotlin	

```
@Entity(name = "sessions")
public class Session {
    @Id
    @GeneratedValue(strategy = GenerationType.IDENTITY)
    @Column(name = "session_id")
    private Long sessionId;

    @ManyToMany
    @JoinTable(
        name = "session_speakers",
        joinColumns = @JoinColumn(name = "session_id"),
        inverseJoinColumns = @JoinColumn(name = "speaker_id"))
    private List<Speaker> speakers;
}
```

Spring Data Overview



Spring Data Commons

Spring Data JPA

Spring JDBC

Spring Data KeyValue

Spring Data Couchbase

Spring Data Neo4j

Repository

Query Generation

Spring Data LDAP

Spring Data MongoDB

Spring Data Redis

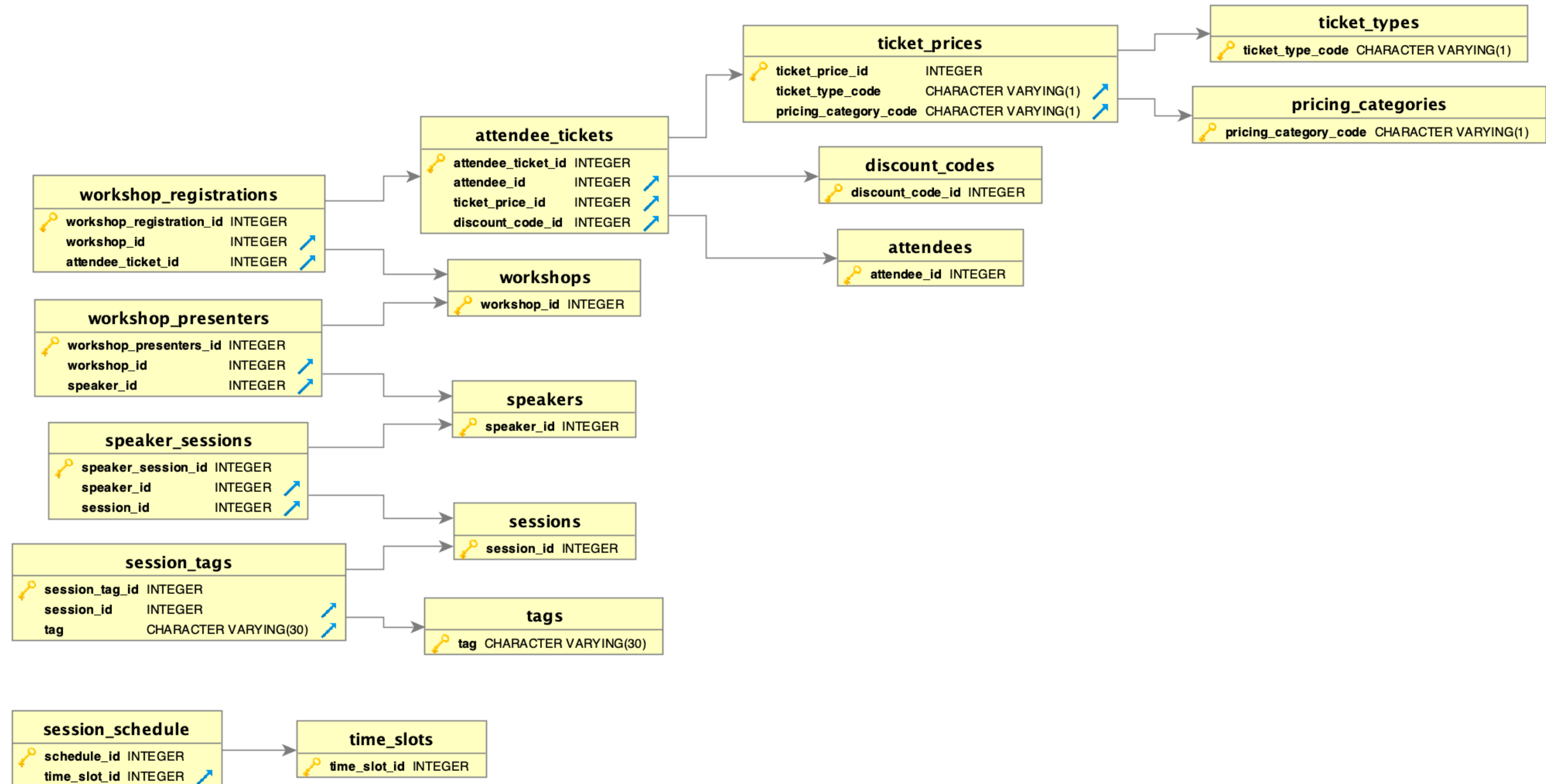
Spring Data Hazelcast

Spring Data DynamoDB

Clip 6 - Demo Placeholder

Demo: Setting up the Codebase

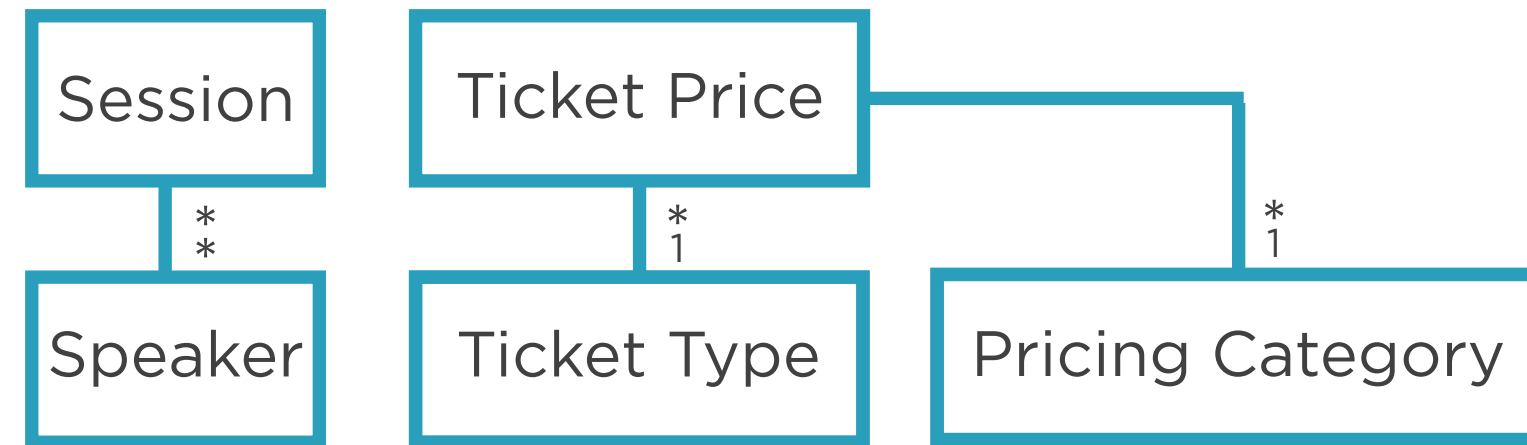
Setting up the Database



Clip 8 - Demo Placeholder

Demo: Setting Up the Project

Project Overview



Persistence Tier

Data Access Object (DAO)



Installing Spring Data JPA

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

```
<dependency>  
    <groupId>org.postgresql</groupId>  
    <artifactId>postgresql</artifactId>  
    <scope>runtime</scope>  
</dependency>
```

Clip 11 - Demo Placeholder

Demo: Installing Spring Data JPA

Summary

Spring Data makes JPA easy!

JPA basics

Project setup and introduction

Spring Data JPA installed and running