

What is Spring Data JPA?

- Spring Data JPA is part of the larger Spring Data project
- aims to simplify data access in Spring-based applications
- Spring Data JPA provides a framework for easily interacting with relational databases using Java Persistence API (JPA)
- JPA is a Java specification for managing, persisting, and accessing data between Java objects and a relational database.

Working of Spring Data JPA

- Entity Definition
- Repository interface
- Query Method naming conventions
- Custom query methods
- EntityManager and TransactionManager
- Application service layer
- Testing



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SpringDataJPA4J28

Code

Find text or code

Sign in

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Run

Convert

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Dependency

Dependencies

ADD DEPENDENCIES... CTRL + B

Spring Boot Dev Tools

DEVELOPER TOOLS

Provides fast application restarts, LiveReload, and configurations for enhanced development experience.

Spring Web

WEB

Build web, including RESTful, applications using Spring MVC. Uses Apache Tomcat as the default embedded container.

MySQL Driver

SQL

MySQL JDBC driver.

Spring Data JPA

SQL

Persist data in SQL stores with Java Persistence API using Spring Data and Hibernate.

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Key features

Repository
Abstraction

Automatic
Query
Generation

Pagination and
Sorting

CRUD
Operations
Simplification

Entity Mapping

Automatic
Auditing

Custom
Queries

Query by
Example

Complex Query
support

Seamless
Integration with
Spring Boot

Transaction
Management

Event Handling

application.properties

application.properties

```
1 ✓spring.jpa.properties.hibernate.dialect=org.hibernate.dialect.MySQLDialect
2 spring.datasource.driver-class-name=com.mysql.cj.jdbc.Driver
3 spring.datasource.url=jdbc:mysql://sp3ofgral0h3uhedyadg-mysql.services.clever-cloud.com:3306/
4 spring.datasource.username=sharayu
5 spring.datasource.password=spider1
6 spring.jpa.hibernate.ddl-auto=update
```

Entity class

```
Account.java
1  package com.sharayu.jpdemo.entities;
2
3  import jakarta.persistence.Column;
4  import jakarta.persistence.Entity;
5  import jakarta.persistence.Id;
6  import jakarta.persistence.Table;
7
8  @Entity
9  @Table(name="accounts")
10 public class Account {
11     @Id
12     @Column(name="accno")
13     private int accno;
14
15     private String accnm;
16     private String acctype;
17     private float balance;
18
19     public int getAccno() {
20         return accno;
21     }
22     public void setAccno(int accno) {
23         this.accno = accno;
24     }
25 }
```

Repository

J AccountRepository.java

```
1 package com.sharayu.jpdemo.repositories;
2
3 import org.springframework.data.jpa.repository.JpaRepository;
4 import org.springframework.stereotype.Repository;
5
6 import com.sharayu.jpdemo.entities.Account;
7
8 @Repository
9 public interface AccountRepository extends JpaRepository<Account, Integer> {
10     +
11 }
12 |
```


Controller

SharayuController.java

```
7
8  import com.sharayu.jspademo.entities.Account;
9  import com.sharayu.jspademo.repositories.AccountRepository;
10
11  @Controller
12  public class SharayuController {
13
14      @Autowired
15      private AccountRepository accrepo;
16
17      @GetMapping("/")
18      public String home()
19      {
20          return "index.jsp";
21      }
22
23      @PostMapping("/add")
24      public String addAccount(Account obj)
25      {
26          accrepo.save(obj);
27          return "Done.jsp";
28      }
29
30  }
```

Search

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JPA insert

```
@Autowired
private AccountRepository accrepo;

@PostMapping("/addacc")
public String addNewAccount(Account obj)
{
    accrepo.save(obj);
    return "AccountAdded.jsp";
}
```