

Spring MVC with JdbcTemplate

Servlet

Pre defined method

```
doPost(HttpServletRequest req) {  
  
}  
doPost(HttpServletRequest req, HttpServletResponse res) {  
  
}  
doGet(HttpServletRequest req, HttpServletResponse res) {  
  
}
```

Spring ORM (Object Relation Mapping)

Spring ORM module doesn't provide any its own orm tool. It help to integrate with existing ORM tool like Hibernate or Jpa or iBatis etc.

Hibernate or JPA

ORM tools help to connect the database to do Crud operation.

Limitation of JDBC

1. Using JDBC we can't store java object as well as we can retrieve java object from database we need to convert java object into query and vice-versa.
2. JDBC use sql language. SQL is database dependent language.
3. JDBC throw checked exception. And all exception hierarchy provided by jdbc are database dependent or vendor dependent.
4. Jdbc doesn't support relationship ie is a and has a

ORM : Object Relation Mapping

ORM is concept like OOPS.

class Employee {	Employee
id,name,salary	Id,Name,Salary
}	columns

```
Employee emp = new Employee()
```

```
emp.setId(100);
```

```
emp.setName("Ravi");
```

```
emp.setSalary(12000);
```

```
Employee(class) = Employee (Table);
```

Variables	Id = ID	columns
-----------	---------	---------

```
Name = Name
```

```
Salary = Salary
```

Hibernate and JPA are implementation of ORM tools.

JPA is technologies part of java people. JPA is type of EJB. JPA come under JEE technologies.

Hibernate is framework part of jboss. It third party framework.

JPA is a specification as well as implementation.

Hibernate is implementation of JPA.

ORM we are going to improve DAO layer.

Hibernate CRUD Operation

JPA Crud Operation

Spring with ORM tool ie hibernate or jpa