

```

public interface ProductDao {
    void addProduct(Product p) throws PersistenceException;
    List<Product> getProducts();
}

public class ProductDaoJdbcImpl implements ProductDao {
    ...
}

public class ProductDaoMongoDbImpl implements ProductDao {
    ...
}

```

```

public class AppService {
    private ProductDao productDao;

    public void setProductDao(ProductDao dao) {
        this.productDao = dao;
    }

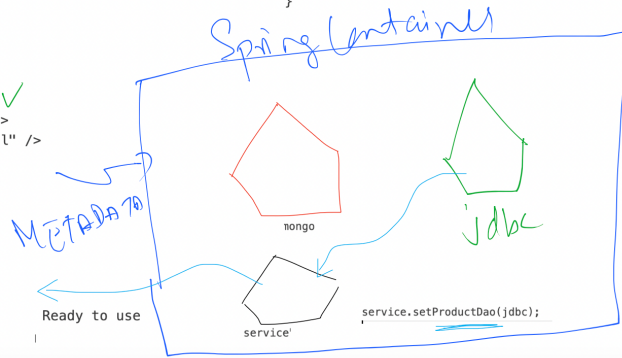
    public void insert(Product p) {
        productDao.addProduct(p);
    }
}

```

```

beans.xml
<bean id="jdbc" class="pkg.ProductDaoJdbcImpl" />
<bean id="mongo" class="pkg.ProductDaoMongoDbImpl" />
<bean id="service" class="pkg.AppService">
    <property name="productDao" ref="jdbc"/>
</bean>

```



```

public interface EmployeeDao {
    void addEmployee();
}

```

```

@Repository
public class EmployeeDaoJdbcImpl implements EmployeeDao {
    @Override
    public void addEmployee() {
        System.out.println("stored in database !!!");
    }
}

```

```

@Service
public class AppService {
    @Autowired
    private EmployeeDao employeeDao;

    public void insert() {
        this.employeeDao.addEmployee();
    }
}

```

```

@SpringBootApplication
public class SpringdemoApplication {

    public static void main(String[] args) {
        //ApplicationContext ctx = new AnnotationConfigApplicationContext();
        ApplicationContext ctx = SpringApplication.run(SpringdemoApplication.class, args);

        AppService service = ctx.getBean("appService", AppService.class);
        service.insert();
    }
}

```

JDBC

```
@Override
public void addProduct(Product p) throws PersistenceException {
    String SQL = "insert into products (id, name, price) values (0, ?, ?)";
    Connection con = null;
    try {
        con = DriverManager.getConnection(URL, USERNAME, PASSWORD);
        PreparedStatement ps = con.prepareStatement(SQL);
        ps.setString(1, p.getName());
        ps.setDouble(2, p.getPrice());
        ps.executeUpdate();
    } catch (SQLException e) {
        if (e.getErrorCode() == 1506) {
            throw new PersistenceException("Product with id " + p.getId() + " already exists!!", e);
        }
        throw new PersistenceException("unable to add Product", e);
    }
    finally {
        if (con != null) {
            try {
                con.close();
            } catch (SQLException e) {
                throw new RuntimeException(e);
            }
        }
    }
}
```

ORM

```
@Override
public void addProduct(Product p) {
    em.persist(p);
}
```

