```
interface EmployeeDao {
    void addEmployee(Employee e);
}

public class EmployeeDaoJdbcImpl implements EmployeeDao {
    public void addEmployee(Employee e) {
        ..
    }
}

public class EmployeeDaoMongoDbImpl implements EmployeeDao {
    public void addEmployee(Employee e) {
        ..
    }
}
```

```
public class AppService {
    private EmployeeDao empDao;

    public void setEmpDao(EmployeeDao edao) {    ✓
        this.empDao = edao;
    }

    public void doTask(Employee e) {
        empDao.addEmployee(e);
    }
}
```

private EmployeeDao empDao = new EmployeeDaoJdbcImpl(); ✗

TIGHT COUPLING
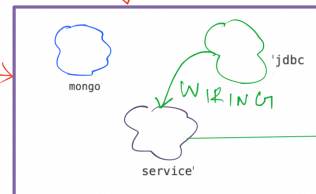
```
ApplicationContext ctx = new ClassPathXmlApplicationContext("beans.xml");
```

```
<beans>                                                    ①
    <bean id="mongo" class="pkg.EmployeeDaoMongoDbImpl" />
    <bean id="jdbc" class="pkg.EmployeeDaoJdbcImpl" />     ②
    <bean id="service" class="pkg.AppService">
        <property name="empDao" ref="jdbc" />             ③
    </bean>
</beans>
```

setEmpDao(jdbc);

METADATA

mongo · jdbc · service · WIRING · READY TO USE

```
interface EmployeeDao {
    void addEmployee(Employee e);
}
```

✓ @Repository ①
```
public class EmployeeDaoJdbcImpl implements EmployeeDao {
    public void addEmployee(Employee e) {
        ..
    }
}
```

```
@Service                              ②

public class AppService {

    @Autowired                        ③

    private EmployeeDao empDao;


    public void doTask(Employee e) {

        empDao.addEmployee(e);

    }

}
```
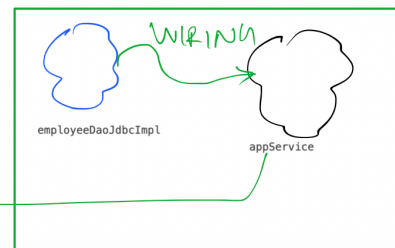
```
ApplicationContext ctx = new AnnotationConfigApplicationContext();
ctx.scan("com.cisco.prj");
ctx.refresh();

AppService ser = ctx.getBean("service", AppService.class);

ser.doTask(new Employee(...));
```

appService

employeeDaoJdbcImpl · WIRING · appService

```java
interface EmployeeDao {
    void addEmployee(Employee e);
}

@Repository
public class EmployeeDaoJdbcImpl implements EmployeeDao {
    public void addEmployee(Employee e) {
        ..
    }
}

@Repository
public class EmployeeDaoMongoImpl implements EmployeeDao{
    @Override
    public void addEmployee() {
        System.out.println("Mongo Store!!!");
    }
}
```
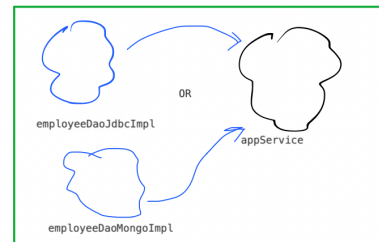
```
Field employeeDao in com.cisco.springdemo.service.AppService
    required a single bean, but 2 were found:
    - employeeDaoJdbcImpl:
    - employeeDaoMongoImpl:
```

```java
@Service
public class AppService {
    @Autowired
    private EmployeeDao empDao;

    public void doTask(Employee e) {
        empDao.addEmployee(e);
    }
}
```

OR


```java
interface EmployeeDao {
    void addEmployee(Employee e);
}

@Repository
public class EmployeeDaoJdbcImpl implements EmployeeDao {
    public void addEmployee(Employee e) {
        ..
    }
}

@Repository
public class EmployeeDaoMongoImpl implements EmployeeDao{
    @Override
    public void addEmployee() {
        System.out.println("Mongo Store!!!");
    }
}
```

```java
@Service
public class AdminService {
    @Autowired
    @Qualifier("employeeDaoMongoImpl")
    private EmployeeDao employeeDao;
}

@Service
public class CustomerService {
    @Autowired
    @Qualifier("employeeDaoJdbcImpl")
    private EmployeeDao employeeDao;
}
```