

### ◇ 1. autowire="byName"

```
<bean id="userService"
```

```
    class="com.rays.autowire.byname.UserService" autowire="byName" />
```

```
<bean id="userDao" class="com.rays.autowire.byname.UserDAOImpl" />
```

#### 🧐 Explanation:

- Yahaan Spring **bean ke property name** aur **dusre bean ke id name** ko match karke injection karta hai.
- Agar UserService class me ek property hai:
- `private UserDAOImpl userDao;`

to Spring dekhega ki koi bean hai kya jiska **id = "userDao"** ho.

- Mil gaya to automatically usko inject kar dega.

🗣️ Simple words me:

“byName” me Spring property name aur bean id name match karke inject karta hai.

---

## ◇ 2. autowire="byType"

```
<bean id="userService"
```

```
    class="com.rays.autowire.bytype.UserService" autowire="byType" />
```

```
<bean id="userDao" class="com.rays.autowire.bytype.UserDAOImpl" />
```

### 🧐 Explanation:

- Yahaan Spring **property ke data type** ke base pe injection karta hai.
- Agar UserService class me:
- `private UserDAOImpl userDao;`

likha hai, to Spring dekhega ki koi bean hai kya jiska **type UserDAOImpl** ho.

- Type match hua → inject ho gaya.

🧑 Simple words me:

“byType” me Spring property ke **type ke base pe** injection karta hai, name matter nahi karta.

💡 Note: Agar same type ke multiple beans hue to Spring confuse ho jaata hai aur error deta hai.

---

### ◇ 3. autowire="constructor"

```
<bean id="userService"  
    class="com.rays.autowire.byconstructor.UserService"  
    autowire="constructor" />
```

```
<bean id="userDao"  
    class="com.rays.autowire.byconstructor.UserDAOImpl" />
```

#### 🧐 Explanation:

- Yahaan Spring **constructor ke parameters** ke type ke base pe injection karta hai.
- Agar UserService me aisa constructor hai:
  - `public UserService(UserDAOImpl userDao) {`
  - `this.userDao = userDao;`
  - `}`

to Spring automatically UserDAOImpl type ka bean (userDao) inject karega.

🧑 Simple words me:

“constructor” me Spring injection **constructor argument ke type** ke base pe karta hai.

---

#### ◇ 4. Manual (No Autowire)

```
<bean id="userService"  
    class="com.rays.autowire.notype.UserService">  
    <property name="userDao" ref="userDao" />  
</bean>
```

```
<bean id="userDao" class="com.rays.autowire.notype.UserDAOImpl" />
```

#### 🧐 Explanation:

- Yahaan autowire use nahi hua.
- Hum manually property ko set kar rahe hain using <property> tag.
- name="userDao" → ye property name hai.
- ref="userDao" → ye bean id jisse inject karna hai.