

## ◆ JDBC DAO Methods Explanation (Step by Step)

### 1 add(UserBean bean)

👉 Kaam:

st\_user table me **naya user record insert** karta hai.

---

#### STEP 1:

```
PreparedStatement pstmt =
```

```
conn.prepareStatement("insert into st_user values(?, ?, ?, ?, ?, ?)");
```

→ Insert query banayi

→ 6 columns hain, isliye 6 ? placeholders

---

#### STEP 2:

```
pstmt.setInt(1, nextPk());
```

→ 1st ? **id column** ke liye

→ id ka data type **INT** hai

→ Isliye setInt() use hua

---

#### STEP 3:

```
pstmt.setString(2, bean.getFirstName());
```

→ 2nd ? **firstName column** ke liye

→ Data type **VARCHAR** hai

→ Isliye setString() use hua

---

#### STEP 4:

```
pstmt.setString(3, bean.getLastName());
```

→ 3rd ? **lastName column** (VARCHAR)

---

#### STEP 5:

```
pstmt.setString(4, bean.getLogin());
```

→ 4th ? **login column** (VARCHAR)

---

#### STEP 6:

```
pstmt.setString(5, bean.getPassword());
```

→ 5th ? **password column** (VARCHAR)

---

#### STEP 7:

```
pstmt.setDate(6, new java.sql.Date(bean.getDob().getTime()));
```

→ 6th ? **DOB column**

→ Data type **DATE** hai

→ Isliye setDate() use hua

---

#### STEP 8:

```
pstmt.executeUpdate();
```

→ Record database me insert ho jaata hai

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### **2** findByLogin(String login)

👉 **Kaam:**

Login ke basis par **single user record** database se nikaalta hai.

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#### STEP 1:

```
PreparedStatement pstmt =
```

```
conn.prepareStatement("select * from st_user where login = ?");
```

→ Select query banayi

→ login ke liye ? placeholder

---

**STEP 2:**

```
pstmt.setString(1, login);
```

→ 1st ? **login column** ke liye

→ Data type **VARCHAR**

→ Isliye `setString()` use hua

---

**STEP 3:**

```
ResultSet rs = pstmt.executeQuery();
```

→ Query execute hui

→ Result ResultSet me aaya

---

**STEP 4:**

```
while (rs.next()) {
```

→ Agar record mila to loop chalega

---

**STEP 5:**

```
bean.setId(rs.getInt(1));
```

→ Column 1 = **id (INT)**

→ Isliye `getInt()` use hua

---

**STEP 6:**

```
bean.setFirstName(rs.getString(2));
```

```
bean.setLastName(rs.getString(3));
```

```
bean.setLogin(rs.getString(4));
```

```
bean.setPassword(rs.getString(5));
```

→ Ye sab **VARCHAR** columns hain  
→ Isliye getString() use hua

---

#### STEP 7:

```
bean.setDob(rs.getDate(6));
```

→ DOB ka type **DATE**  
→ Isliye getDate() use hua

---

#### STEP 8:

```
return bean;
```

→ User mila to bean return  
→ Nahi mila to null return

---

### **search(UserBean bean)**

 **Kaam:**

FirstName / LastName ke basis par **multiple users search** karta hai.

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#### STEP 1:

```
StringBuffer sql =
```

```
new StringBuffer("select * from st_user where 1=1");
```

→ Base query banayi  
→ 1=1 ka use dynamic conditions ke liye hota hai

---

#### STEP 2:

```
sql.append(" and firstName like 'A%'");
```

→ FirstName ke starting letters se match  
→ % ka matlab: aage kuch bhi ho sakta hai

---

**STEP 3:**

```
sql.append(" and lastName like 'S%'");
```

→ Same logic lastName ke liye

---

**STEP 4:**

```
PreparedStatement pstmt =
```

```
conn.prepareStatement(sql.toString());
```

→ Final dynamic query se pstmt bana

---

**STEP 5:**

```
ResultSet rs = pstmt.executeQuery();
```

→ Search query execute hui

→ Multiple records aa sakte hain

---

**STEP 6:**

```
List list = new ArrayList();
```

→ Sab users ko store karne ke liye list

---

**STEP 7:**

```
while (rs.next()) {
```

→ Har record ke liye loop

---

**STEP 8:**

```
bean.setId(rs.getInt(1));
```

```
bean.setFirstName(rs.getString(2));
```

```
bean.setLastName(rs.getString(3));
```

```
bean.setLogin(rs.getString(4));
```

```
bean.setPassword(rs.getString(5));
```

```
bean.setDob(rs.getDate(6));
```

→ Column ke data type ke according getXXX() use hua

---

#### **STEP 9:**

```
list.add(bean);
```

→ Har user ko list me add kiya

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#### **STEP 10:**

```
return list;
```

→ Final list return hoti hai

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#### ◆ **FINAL SUMMARY (EXAM / INTERVIEW LINE)**

- add() → **Record insert karta hai**
- findByLogin() → **Single record laata hai**
- search() → **Multiple records laata hai**
- setInt / getInt → **INT column**
- setString / getString → **VARCHAR column**
- setDate / getDate → **DATE column**