

## ◆ 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

---

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

👉 **Kaam:**

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

---

#### **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
- 

### 3 search(UserBean bean)

#### 👉 Kaam:

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

---

#### 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 '%"+");
```

→ 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
```

---

#### **STEP 10:**

```
return list;  
→ Final list return hoti hai
```

---

#### **◆ 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