

JDBC (Java Database Connection)

① `Class.forName("com.mysql.cj.jdbc.Driver");`

↑
This loads the JDBC driver.

②

`Connection con = DriverManager.getConnection(path.username, pass);`

↑
This connects with the schema
connection object used to create query statements
for example
`con.createStatement("");`

③

`statement stmt = con.createStatement("");`

Now statement object have 3 methods.

- ① `execute()` → If we get resultset then It returns true else it returns false
- ② `executeQuery()`
- ③ `executeUpdate()`

Example :

`string query = "select * from student";`

④

`ResultSet rs = stmt.executeQuery(query);`

A resultset in JDBC is an object that holds the data returned by SQL select query
ResultSet is used for select Query.

⑤

`rs.next()` It returns true or false

If row exists then it returns true else it returns false.

Now statement are of two types

- ① Statement
- ② Prepared statement

Both working is same but prepared statement is SQL injection safe

Like statement we can write prepared statement like follow

PreparedStatement pstmt = con.prepareStatement(query);

Now methods of PreparedStatement are follow.

- ① setString() → to set string value for ? placeholder.
- ② setInt() → Integer value
- ③ setDouble() → double value.
- ⋮
- etc.

④ executeQuery() → Executes select Query Returns ResultSet.

⑤ executeUpdate() → Used for Insert, update, delete & Returns integer.
(no of row affected)

⑥ execute() → It can work with any SQL & Returns boolean value.

Summary Table :

Method	For Queries Like	Returns	Use.
executeQuery()	select	ResultSet	Read data
executeUpdate()	Insert/Update / Delete	int	modify data
execute()	Any SQL	boolean	Dynamic project.