ECAP615

Programming in Java

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Learning Outcomes

After this lecture, you will be able to

- Learn the basic concept PreparedStatement and ResultSetMetaData interface.
- Understand the various methods of PreparedStatement and ResultSetMetaData interface.
- Implementation of PreparedStatement and ResultSetMetaData interface.

PreparedStatement interface

- The PreparedStatement interface is a subinterface of Statement.
- It is a pre-compiled SQL statement.
- Prepared Statement objects have some useful additional features than Statement objects.
- Instead of hard coding queries, PreparedStatement object provides a feature to execute a parameterized query.

PreparedStatement interface

Example

- String sql="insert into tablename values(?,?,?)";

PreparedStatement Interface

- Why use PreparedStatement?
  - Improves performance
- How to get the instance of PreparedStatement?

Syntax:

- public PreparedStatement prepareStatement(String query)throws SQLException{}

PreparedStatement Interface

The following are the steps to use PreparedStatement :

1. Create Connection to Database

```
Connection Con
=DriverManager.getConnection(path,username,password)
```

2. Prepare Statement

```
PreparedStatement Stmt;
Stmt = Con.prepareStatement(select * from tablename where
columnname > ?);
```

PreparedStatement Interface

The following are the steps to use PreparedStatement :

3. Set parameter values for type and position

```
Stmt.setInt(1,20);
```

```
Stmt.setString(2,“ABC");
```

4. Execute the Query

```
ResultSet Rs= Stmt.executeQuery();
```

Advantages of PreparedStatement

- When PreparedStatement is created, the SQL query is passed as a parameter.
- It contains a pre-compiled SQL query.
- We can use the same PreparedStatement and supply with different parameters at the time of execution.

Methods of PreparedStatement interface

- setInt(int, int)
- setString(int, string)
- setFloat(int, float)
- setDouble(int, double)
- executeUpdate()
- executeQuery()

ResultSetMetaData Interface

- If you want to get metadata of a table, ResultSetMetaData interface is useful because it provides methods to get metadata from the ResultSet object.
- The getMetaData() method of ResultSet interface returns the object of ResultSetMetaData.

Syntax:

- public ResultSetMetaData getMetaData()throws SQLException

Methods of ResultSetMetaData Interface

- getColumnCount()
- getColumnLabel()
- getColumnName()
- getTableName()

That’s all for now…