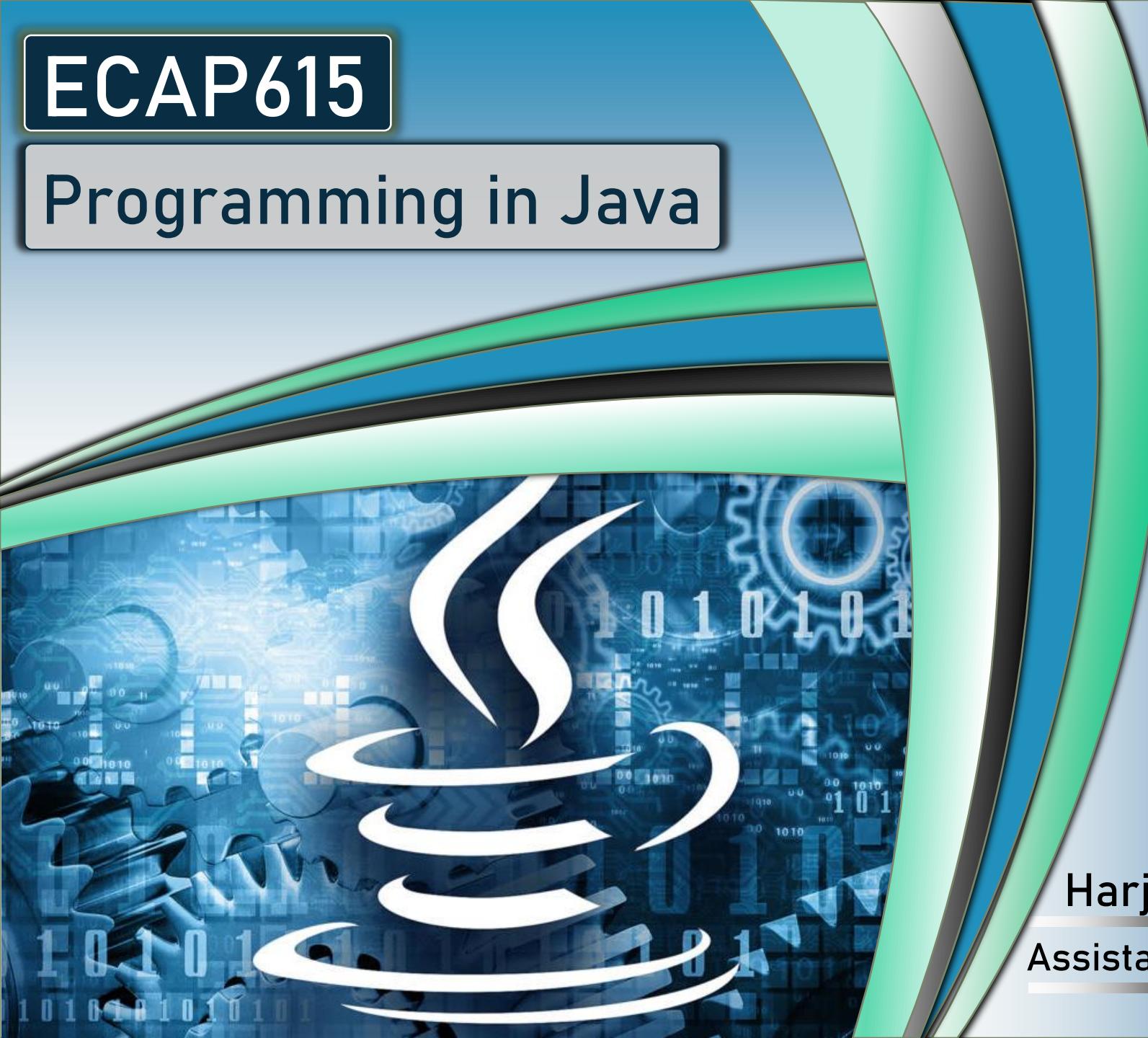# ECAP615

Programming in Java

Harjinder Kaur

Assistant Professor

Learning Outcomes

After this lecture, you will be able to

- understand the basic concepts of Statement Interface and ResultSet Interface

- implement Statement and ResultSet interface

Statement interface

- The Statement interface provides methods to execute queries with the database.

- The statement interface is a factory of ResultSet.

- The Statement object executes a normal SQL statement to update or query the database.

- The java.sql.Statement interface is a part of JDBC API.

Statement interface

- A Statement object sends the required SQL statement as a query and then returns a set of results.

- We can use the createStatement() method of the connection object to obtain Statement object.

- We can create multiple objects by using a single connection object.

Statement interface

- The following method of the connection objects is used to retrieve a statement object:

CreateStatement():

Methods of Statement Interface

1) public boolean execute(String url)

2) public ResultSet executeQuery(String url)

3) public int executeUpdate(String url)

4) public int[] executeBatch()

ResultSet interface

- The object of ResultSet maintains a cursor pointing to a row of a table.

- Initially, cursor points to before the first row.

ResultSet interface

- But we can make this object to move forward and backward direction by passing either TYPE_SCROLL_INSENSITIVE or TYPE_SCROLL_SENSITIVE in createStatement(int,int) method as well as we can make this object as updatable by:

Statement stmt =

con.createStatement(ResultSet.TYPE_SCROLL_INSENSITIVE,

ResultSet.CONCUR_UPDATABLE);

ResultSet interface

- The SELECT statement is the standard way to select rows from a database and view them in a result set.

- The *java.sql.ResultSet* interface represents the result set of a database query.

- The term "result set" refers to the row and column data contained in a ResultSet object.

ResultSet interface

ResultSet interface methods can be broken down into the following categories:

- ➤ Navigational methods

- ➤ Get methods

- ➤ Update methods

Types of ResultSet

- ResultSet.TYPE_FORWARD_ONLY

- ResultSet.TYPE_SCROLL_INSENSITIVE

- ResultSet.TYPE_SCROLL_SENSITIVE

Methods used in ResultSet

- public void beforeFirst()

- public boolean next()

- public boolean previous()

- public boolean first()

Methods used in ResultSet

- public boolean last()

- public boolean absolute(int row)

- public boolean relative(int row)

- public int getInt(int columnIndex)

Methods used in ResultSet

- public int getInt(String columnName)

- public String getString(int columnIndex)

- public String getString(String columnName)

- public int getRow() throws SQLException

That's all for now…