

JDBC

Rohollah Moosavi

Email: rohollah.moosavi@ontariotechu.ca

JDBC

Java DataBase Connectivity is an API that enables Java applications to **interact with databases**.

- We have **one concrete class** called **DriverManager** and **4 interfaces**: **Connection**, **Statement**, **ResultSet**, **DatabaseMetaData**.

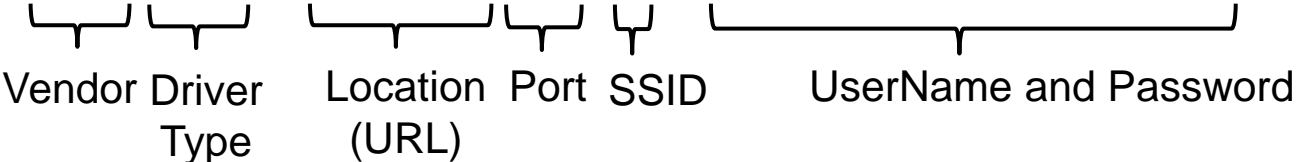
JDBC

- **DriverManager** manage the drivers and setup JDBC for use by passing the database vendor, Database location (URL), Username & Password.
 - So normally we would say something like:

```
DriverManager.registerDriver(new oracle.jdbc.driver.OracleDriver());
```

- **Connection** is used to stablsh the connection and the link between Java application and the database.

```
Connection connection = DriverManager.getConnection  
("jdbc:oracle:thin:@localhost:1521:xe", "aUsername", "aPassword");
```



Vendor Driver Type Location Port SSID Username and Password

(URL)

- **ResultSet** is the data from a query. So if we do select, it returns resultset.

SQL command types

Data Definition
Language (DDL)

Create

Drop

Alter

Data Manipulation
Language (DML)

Insert into

Update

Delete

Data Query Language
(DQL)

Select

Data Control
Language (DCL)

Grant

Revoke

Statement

We can use these 3 methods to run on the statement object:

- **statement.execute(String query)** use for DDL, like Create, Drop.
- **statement.executeUpdate(String query)** use for DML, like Insert, Delete, Update.
- **statement.executeQuery(String query)** use for DQL, like Select.

