جامعة الأهرام الكندية
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Session (02.02) Interfacing MS Access Database using Java (2)

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ResultSets

- A **ResultSet** is a way to store and manipulate the records returned from a SQL query.
- **ResultSets** come in three different types.
- The type you use depends on what you want to do with the data:

```
ResultSet rs = s.getResultSet();
```

- 1) Do you just want to move forward through the records, from beginning to end?
- 2) Do you want to move forward AND backward through the records, as well as detecting any changes made to the records?

(3) Do you want to move forward AND backward through the records, but are not bothered about any changes made to the records

- Type number 1 on the list above is called a **TYPE_FORWARD_ONLY ResultSet**.
- Number 2 on the list is a **TYPE_SCROLL_SENSITIVE ResultSet**.
- The third ResultSet option is called **TYPE_SCROLL_INSENSITIVE.**
- The ResultSet type goes between the round brackets of createStement:

```
Statement s = conn.createStatement( );
```

- Because we've left the round brackets empty, we'll get the default RecordSet, which is **TYPE_FORWARD_ONLY**.
- we'll use one of the other types.
- But you use them like this:

```
Statement stmt =
con.createStatement( RecordSet.TYPE_SCROLL_SENSITIVE );
```

- So you first type the word RecordSet. After a dot, you add the RecordSet type you want to use.

- you also need to specify whether the **ResultSet** is Read Only or whether it is Updatable.
- You do this with two built-in constants: **CONCUR_READ_ONLY and CONCUR_UPDATABLE**.
- Again, these come after the word RecordSet:

```
ResultSet.CONCUR_READ_ONLY
ResultSet.CONCUR_UPDATABLE
```

- The final code will be,…

```
Statement s =conn.createStatement(
ResultSet.TYPE_SCROLL_SENSITIVE,ResultSet.CONCUR_UPDATABLE);
```

- One more thing to get used to with **ResultSets** is something called a **Cursor**.
- A **Cursor** is really just a pointer to a table row.
- When you first load the records into a **ResultSet**, the **Cursor** is pointing to just before the first row in the table.
- You then use methods to manipulate the **Cursor**.
- But the idea is to identify a particular row in your table.

Using a ResultSet

- Once you have all the records in a Results set, there are methods you can use to manipulate your records.
- Here are the methods you'll use most often:

Next	Moves the Cursor to the next row in your table. If there are no more rows in the table, a value of False will be returned.
Previous	Moves the Cursor back one row in your table. If there are no more rows in the table, a value of False will be returned.

first	Moves the Cursor to the first row in your table
last	Moves the Cursor to the last row in your table
Absolute	Moves the Cursor to a particular row in the table. So absolute(5) will move the Cursor to row number 5 in the table

javadbexample02

- Check lab manual

update

- Using updatable result set,…

```
rs.updateInt( “fieldname", intvalue);
rs.updateString( fieldnumber, stringvalue);
 rs.updateRow( );
```

Javadbexample3

- Check lab manual

Insert

- To insert new record

```
rs.moveToInsertRow( );
rs.updateInt(field name,number);
rs.updateString(field name, string);
rs.insertRow( );
```

Javadbexample4

- Check lab manual

Assignment

- Re-write “JavaDBExample 02,03,04” programs again to work with Example02.accdb

Thanks,..

See you next week (ISA),…