

BCI433 - IBM i Business Computing

Week 10: Embedded SQL with Cursor
in RPGLE Programming

Agenda

- ▶ RPGLE Programming with Embedded SQL & Cursor
- ▶ Lab 9B



Lesson Objectives

Upon completion of this lecture and lab 2 you'll be able to:

- Use embedded SQL with Cursor in application development programming code

Lab 9B - Using SQL cursor in Embedded SQL

Steps to use SQL cursor in embedded SQL:

- // Declare an indicator and a data structure for cursor operations

```
DCL-S EndOfFile IND;
```

```
DCL-DS CustomerRecord;
```

```
  CsCustId    Packed(7:0);
```

```
  CsName      Char(30);
```

```
  CsShipCity  Char(30);
```

```
  CsDiscount  Packed(5:3);
```

```
  CsCityNull  BinDec (4:0);
```

```
  CsDiscNull  BinDec (4:0);
```

```
End-Ds CustomerRecord;
```

Lab 9B - Using SQL cursor in Embedded SQL

- ▶ What is an SQL/db cursor?
 - a pointer to a specific row within an SQL query result
- ▶ // Declaring a cursor

EXEC SQL

Declare CustomerCursor **Cursor**

For Select *

From Customer

Order By CustId;

Lab 9B - Using SQL cursor in Embedded SQL

- // Loading a temporary result table, i.e. open the cursor

EXEC SQL

Open CustomerCursor;

If SQLCODE <> 0 OR SQLWNO = 'W';

EndOfFile = *ON;

EndIf;

Lab 9B - Using SQL cursor in Embedded SQL

- // Retrieving a row from the temporary result table
// this needs to be in a loop:

EXEC SQL

Fetch Next

From CustomerCursor

Into :CsCustId, :CsName,

:CsShpCity CsCityNull,

:CsDiscount CsDiscNull; // from DS CustomerRecord

If SQLCODE <> 0 OR SQLWNO = 'W';

EndOfFile = *ON;

EndIf;

Lab 9B - Using SQL cursor in Embedded SQL

- // Finished with the temporary result table
// this is not in the loop:

EXEC SQL

Close CustomerCursor;

If SQLCODE <> 0 OR SQLWNO = 'W';

EndOfFile = *ON;

EndIf;

Homework

- ▶ Review lecture notes.
- ▶ Complete Lab 9B



Lab 9B Demo



The End

