

## BCI433 Lab 8 (Summer 2018)

### Lab objectives:

Create an RPGLE program that reads from a WORKWEEK table and updates the EMPLOYEE table.

Create a CLLE program to facilitate marking your update program that processes a WORKWEEK1 and WORKWEEK2 file with the same update program.

### Requirements to pass the lab:

Successfully run the CLLE Payroll update program.

### INPUT from the SENEAPAY library:

```
Work with Objects Using PDM                                SENM25
Library . . . . . SENECAPAY      Position to . . . . . _____
                                Position to type . . . . . _____

Type options, press Enter.
  2=Change      3=Copy      4=Delete      5=Display      7=Rename
  8=Display description      9=Save      10=Restore      11=Move ...

Opt  Object      Type      Attribute      Text
--   WORKWEEK      *FILE      PF-DTA
--   WORKWEEK1      *FILE      PF-DTA
--   WORKWEEK2      *FILE      PF-DTA
```

File to be updated is in your library. (copied from SENEAPAY library)

```
Work with Objects Using PDM                                SENM25
Library . . . . . DM433B40      Position to . . . . . _____
                                Position to type . . . . . _____

Type options, press Enter.
  2=Change      3=Copy      4=Delete      5=Display      7=Rename
  8=Display description      9=Save      10=Restore      11=Move ...

Opt  Object      Type      Attribute      Text
==   EMPLOYEE      *FILE      PF-DTA
```

Copy your successfully completed Lab 5 RPGLE program, Printer DDS and Display file DDS code to a source physical file called LAB8. Rename the RPGLE program PAYROLLPGU, the Printer DDS code as PAYRPTU and the Display File DDS code as CONFIRMPYU.

Adapt the RPGLE program to update an EMPLOYEE file when doing the payroll report.

## BCI433 Lab 8 (Summer 2018)

Code a CLLE driver program to do the following:

1. Show what is in your EMPLOYEE table (**copied from SENEAPAY to your library**) and always refreshed with the original data from SENEAPAY/EMPLOYEE. This is not all the columns in the EMPLOYEE table. You will have a view that provides information on the following columns.

The screenshot shows a terminal window titled "Session A - [27 x 132]". The menu bar includes File, Edit, View, Communication, Actions, Window, and Help. The toolbar contains various icons for file operations. The status bar at the top shows "Host: ZEUS.SENECACOLLEGE.CA", "Port: 23", "Workstation ID:", and a "Disconnect" button. The main display area is titled "Display Report" and shows a table of employee data. The table has 8 columns: Line, EMPNO, EMPNAME, UNIONDUES, YTDPAY, YDTAX, and two unlabeled columns. The data is as follows:

Line	EMPNO	EMPNAME	UNIONDUES	YTDPAY	YDTAX		
000001	111,111,111	Dalton McGuinty	.00	.00	.00		
000002	122,222,222	David Miller	.00	.00	.00		
000003	123,123,123	Stephen Harper	.00	.00	.00		
000004	133,333,333	Barack Obama	.00	.00	.00		
000005	143,444,433	Tom Wong	.00	.00	.00		
000006	144,444,444	William Seneca	.00	.00	.00		
000007	155,555,555	Michelle Williams	.00	.00	.00		
000008	166,666,666	Kerry Fraser	.00	.00	.00		
000009	176,666,666	Harry Wang	.00	.00	.00		
000010	222,222,222	Bob Rae	.00	.00	.00		
000011	223,333,333	Gary Singh	.00	.00	.00		
000012	233,333,333	Matt DeSalvo	.00	.00	.00		
000013	234,234,234	Kyle Farnsworth	.00	.00	.00		
000014	243,343,433	Randy Johnson	.00	.00	.00		
000015	244,444,444	Jeff Karstens	.00	.00	.00		
000016	255,446,666	Cory Lidle	.00	.00	.00		
000017	255,555,555	Mike Mussina	.00	.00	.00		
000018	266,666,666	Carl Pavano	.00	.00	.00		
000019	322,222,222	Sidney Ponson	.00	.00	.00		

At the bottom of the window, there are function key definitions: F3=Exit, F12=Cancel, F19=Left, F20=Right, F21=Split, F22=Width 80. A "More..." link is visible on the right side of the table. The status bar at the bottom shows "1902 - Session successfully started" and the path "\\PC-ESP55V01PD\\S@Y\_Staff\_Xerox on LPT2:".

2. Set up and run your update program (adapted from your lab 5 payroll program) This RPGLE update program will process a WORKWEEK table stored in SENEAPAY. The WORKWEEK table is missing the PAYGRADE field that was stored in ALLSHIFT. You will have to look up the EMPLOYEE record using the employee number from WORKWEEK to find out the corresponding PAYGRADE stored in EMPLOYEE.

Three screens will show. First the CONFIRMPYU screen similar to the one used in the LAB5 PAYROLLPGM, then the report generated from doing the payroll and then the view that you have created that shows selected columns from your EMPLOYEE table to prove that table was updated with the payroll amounts.

CONFIRMPYU – is similar to the CONFIRMPAY display file. It has a 25 character field the indicates the work week number.

## BCI433 Lab 8 (Summer 2018)

Session A - [24 x 80]

File Edit View Communication Actions Window Help

Host: ZEUS.SENECACOLLEGE.CA Port: 23 Workstation ID: Disconnect

---

DM433B40 Payroll Program Completed 3/21/18

Your Name Here

W O R K      W E E K      #1

Rates:

Day Rate: 25.75

Afternoon Rate: 27.30

Night Rate: 28.66

Totals:

Regular Pay: 47,026.60

Overtime Pay: 1,432.54

Company Payout: \$48,459.14

1902 - Session successfully started

\\PC-ESP55Y01PD\S@Y\_Staff\_Xerox on LPT2:

PAYRPTU is similar to PAYRPT. It also has a 25 character field that indicates the work week number. It also includes two new columns with column totals. The Tax deducted and the net pay.

Session A - [27 x 132]

File Edit View Communication Actions Window Help

Host: ZEUS.SENECACOLLEGE.CA Port: 23 Workstation ID: Disconnect

---

Display Spooled File

File . . . . . WEEK1PAY Page/Line 1/1

Control . . . . . Columns 1 - 130

Find . . . . .

\*...1...2...3...4...5...6...7...8...9...0...1...2...3

3/21/2018 13:58:49 Weekly Payroll Report Page:0001

Name: Your Name

W O R K      W E E K      #1

Employee Number	Work Shift	Pay Grade	Hourly Rate	Hours Worked	Regular Pay	Overtime Pay	Total Pay	Tax Deducted	Dues	Net Pay
333-333-333	D	1	27.63	42	1,185.20	82.89	1,180.09	283.30	15.00	809.7
122-222-222	D	3	24.59	36	885.24		885.24	210.16	15.00	660.0
322-222-222	D	2	27.14	40	1,085.60		1,085.60	250.54	15.00	812.0
422-222-222	D	3	24.59	40	983.60		983.60	233.91	15.00	734.6
534-343-333	D	2	27.14	33	895.62		895.62	212.66	15.00	667.9
133-333-333	D	1	27.63	15	414.45		414.45	96.46	15.00	302.9
244-444-444	D	1	27.63	40	1,105.20		1,105.20	263.28	15.00	826.9
344-444-444	D	2	27.14	40	1,085.60		1,085.60	250.54	15.00	812.0
443-444-444	D	3	24.59	40	983.60		983.60	233.91	15.00	734.6
355-555-555	D	2	27.14	40	1,085.60		1,085.60	250.54	15.00	812.0
455-555-555	D	3	24.59	40	983.60		983.60	233.91	15.00	734.6
555-552-222	D	1	27.63	40	1,105.20		1,105.20	263.28	15.00	826.9
476-666-666	D	2	27.14	32	868.48		868.48	206.11	15.00	647.3

F3=Exit F12=Cancel F19=Left F20=Right F24=More keys

1902 - Session successfully started

\\PC-ESP55Y01PD\S@Y\_Staff\_Xerox on LPT2:

## BCI433 Lab 8 (Summer 2018)

Code needs to be adapted in the copied Lab8 program to update each employee record with the pay earned by the employee for the week and along with a tax of 24.15% is applied to employees pay. Also union dues are collected each week. This amount is passed to the CLLE program that processes a WORKWEEK1 file and a WORKWEEK 2 file. In the screenshot below, \$15.00 a week was passed as a paramter at run time for union dues.

==>CALL RUNUPDATE 15.00 (this was done at the start – we are in the middle of the driver program with the screenshot below

Net Pay amounts are not stored in the employee table.

Here is the EMPLOYEE table view that shows the updated fields for each employee.

Line	EMPNO	EMPNAME	UNIONDUES	YTDPAY	YDTRX
000001	111,111,111	Dalton McGuinty	15.00	1,171.68	279.31
000002	122,222,222	David Miller	15.00	885.24	218.16
000003	123,123,123	Stephen Harper	15.00	1,288.27	385.56
000004	133,333,333	Barack Obama	15.00	414.45	96.46
000005	143,444,433	Tom Wong	15.00	1,894.88	268.77
000006	144,444,444	William Seneca	15.00	1,158.88	274.29
000007	155,555,555	Michelle Williams	15.00	983.21	214.58
000008	166,666,666	Kerry Fraser	15.00	1,217.97	298.51
000009	176,666,666	Harry Wang	15.00	1,894.88	268.77
000010	222,222,222	Bob Rae	15.00	1,237.11	295.13
000011	223,333,333	Gary Singh	15.00	1,355.64	323.76
000012	233,333,333	Matt DeSalvo	15.00	1,121.01	267.18
000013	234,234,234	Kyle Farnsworth	15.00	886.38	218.43
000014	243,343,433	Randy Johnson	15.00	1,894.88	268.77
000015	244,444,444	Jeff Karstens	15.00	1,185.28	261.28
000016	255,446,666	Cory Lidle	15.00	1,238.88	293.42
000017	255,555,555	Mike Mussina	15.00	1,259.47	308.53
000018	266,666,666	Carl Pavano	15.00	713.11	168.59
000019	322,222,222	Sidney Ponson	15.00	1,885.68	258.54

Your update program should then process a file called WORKWEEK2. Several screens will show for this step. First the CONFIRMPYU screen, then the report generated and the view you created to reflect the updates.

DM433B40		Payroll Program Completed		3/21/18	
Your Name Here		WORK WEEK #2			
Rates:					
Day Rate:		25.75			
Afternoon Rate:		27.30			
Night Rate:		28.66			
Totals:					
Regular Pay:		43,494.23			
Overtime Pay:		968.04			
Company Payout:		\$44,462.27			



## BCI433 Lab 8 (Summer 2018)

Session A - [27 x 132]

File Edit View Communication Actions Window Help

Host: ZEUS.SENECACOLLEGE.CA Port: 23 Workstation ID: Disconnect

Display Spooled File

File . . . . . : WEEK2PAY Page/Line 1/1  
Control . . . . . Columns 1 - 130  
Find . . . . .

\*...+...1...+...2...+...3...+...4...+...5...+...6...+...7...+...8...+...9...+...0...+...1...+...2...+...3  
3/21/2018 14:00:28 Weekly Payroll Report Page:0001  
Name: Your Name

W O R K W E E K #2

Employee Number	Work Shift	Pay Grade	Hourly Rate	Hours Worked	Regular Pay	Overtime Pay	Total Pay	Tax Deducted	Dues	Net Pay
333-333-333	D	1	27.63	40	1,105.20		1,105.20	263.20	15.00	826.9
122-222-222	D	3	24.59	37	909.83		909.83	216.10	15.00	678.7
422-222-222	D	3	24.59	38	934.42		934.42	222.03	15.00	697.3
534-343-333	D	2	27.14	25	678.50		678.50	160.23	15.00	503.2
133-333-333	D	1	27.63	35	967.05		967.05	229.92	15.00	722.1
244-444-444	D	1	27.63	41	1,105.20	41.45	1,146.65	273.29	15.00	858.3
344-444-444	D	2	27.14	40	1,085.60		1,085.60	250.54	15.00	812.0
443-444-444	D	3	24.59	40	983.60		983.60	233.91	15.00	734.6
355-555-555	D	2	27.14	35	949.90		949.90	225.77	15.00	709.1
455-555-555	D	3	24.59	40	983.60		983.60	233.91	15.00	734.6
555-552-222	D	1	27.63	46	1,105.20	248.67	1,353.87	323.33	15.00	1,015.5
576-666-666	D	1	27.63	40	1,105.20		1,105.20	263.20	15.00	826.9
266-666-666	D	3	24.59	39	959.01		959.01	227.97	15.00	716.0

F3=Exit F12=Cancel F19=Left F20=Right F24=More keys

902 - Session successfully started \\PC-ESP55V01PD\S@Y\_Staff\_Xerox on LPT2:

The EMPLOYEE file will now have had two updates applied.

Session A - [27 x 132]

File Edit View Communication Actions Window Help

Host: ZEUS.SENECACOLLEGE.CA Port: 23 Workstation ID: Disconnect

Display Report

Position to line . . . . . : 81  
Shift to column . . . . .

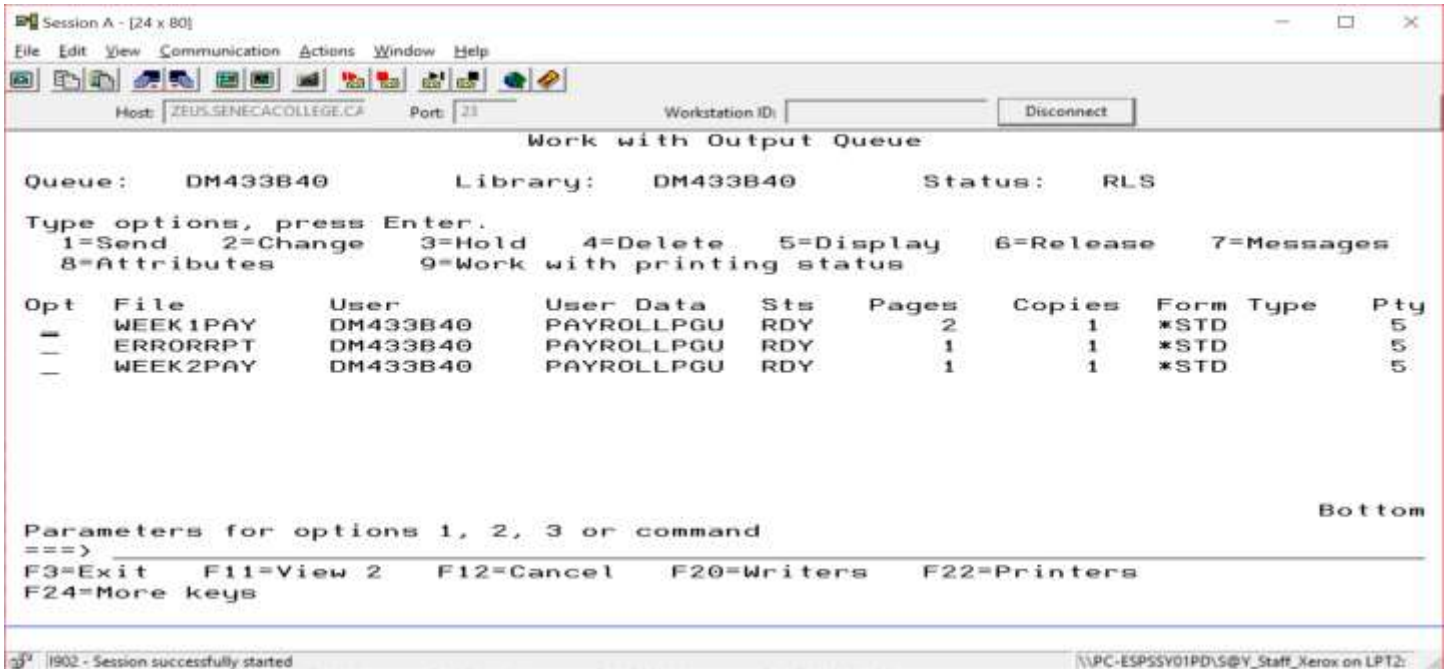
Line	EMPNO	EMPNAME	UNIONDUES	YTDPRY	YTOTAX
000001	111,111,111	Dalton McGuinty	30.00	2,343.20	558.62
000002	122,222,222	David Miller	30.00	1,795.07	426.26
000003	123,123,123	Stephen Harper	30.00	2,431.07	579.05
000004	133,333,333	Barack Obama	30.00	1,381.50	326.38
000005	143,444,433	Tom Wong	30.00	2,189.60	521.54
000006	144,444,444	William Seneca	30.00	2,301.60	540.50
000007	155,555,555	Michelle Williams	30.00	1,806.42	429.00
000008	166,666,666	Kerry Fraser	30.00	2,435.94	581.02
000009	176,666,666	Harry Wang	30.00	2,230.66	531.45
000010	222,222,222	Bob Rae	30.00	2,474.22	598.26
000011	223,333,333	Gary Singh	30.00	2,437.55	581.41
000012	233,333,333	Matt DeSalvo	30.00	2,163.01	515.31
000013	234,234,234	Kyle Farnsworth	30.00	1,772.76	420.06
000014	243,343,433	Randy Johnson	30.00	1,998.01	475.27
000015	244,444,444	Jeff Karstens	30.00	2,251.05	536.57
000016	255,446,666	Cory Lidle	30.00	2,460.00	586.04
000017	255,555,555	Mike Mussina	30.00	2,510.94	601.06
000018	266,666,666	Carl Pavano	30.00	1,672.12	396.56
000019	322,222,222	Sidney Ponson	15.00	1,005.60	250.54

F3=Exit F12=Cancel F19=Left F20=Right F21=Split F22=Width 80

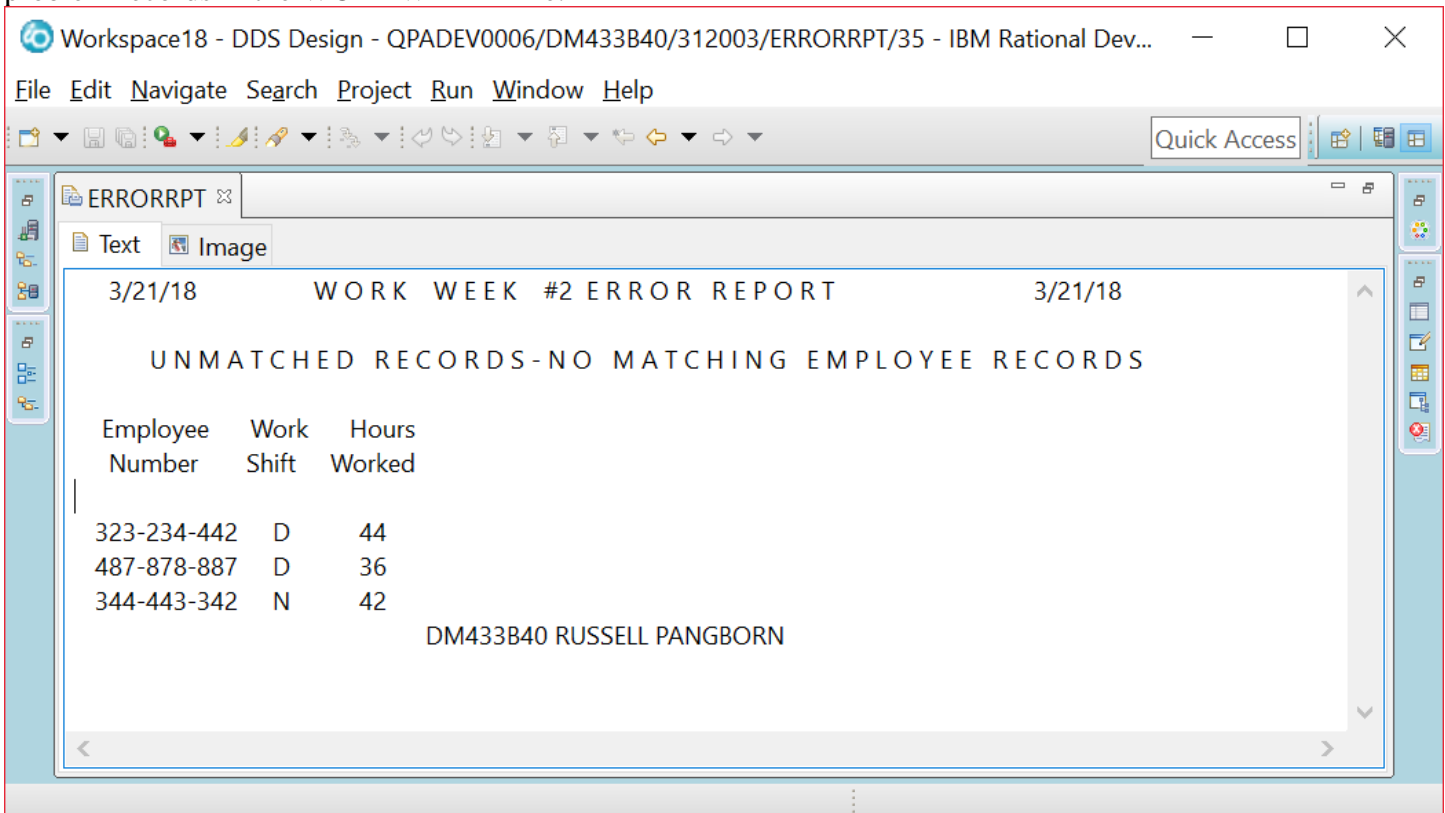
902 - Session successfully started \\PC-ESP55V01PD\S@Y\_Staff\_Xerox on LPT2:

## BCI433 Lab 8 (Summer 2018)

The names for the report should be adaptable depending on the workweek file being processed. After displaying the spooled file contents, show the cleared output queue with the two reports.



If a workweek record has no matching employee record, an error report is generated. This happened with some problem records in the WORKWEEK2 file.



## BCI433 Lab 8 (Summer 2018)

Here is how a report should look when displayed using Rdi.

Workspace18 - DDS Design - QPADEV0006/DM433B40/312003/WEEK1PAY/34 - IBM Rational Developer for i

File Edit Navigate Search Project Run Window Help

ERROR!PT WEEK1PAY

3/21/2018 13:58:49  
Name: Your Name

Weekly Payroll Report Page:0001

Employee Number	Work Shift	Pay Grade	Hourly Rate	Hours Worked	Regular Pay	Overtime Pay	Total Pay	Tax Deducted	Dues	Net Pay
333-333-333	D	1	27.63	42	1,105.20	82.89	1,188.09	283.30	15.00	889.79
122-222-222	D	2	24.59	36	885.24		885.24	210.16	15.00	660.00
322-222-222	D	2	27.14	40	1,085.60		1,085.60	258.54	15.00	812.06
422-222-222	D	3	24.59	40	983.60		983.60	233.91	15.00	734.69
534-343-333	D	2	27.14	33	895.62		895.62	212.66	15.00	667.96
133-333-333	D	1	27.63	15	414.45		414.45	96.46	15.00	302.99
244-444-444	D	1	27.63	40	1,105.20		1,105.20	263.28	15.00	826.92
344-444-444	D	2	27.14	40	1,085.60		1,085.60	258.54	15.00	812.06
443-444-444	D	3	24.59	40	983.60		983.60	233.91	15.00	734.69
355-555-555	D	2	27.14	40	1,085.60		1,085.60	258.54	15.00	812.06
455-555-555	D	3	24.59	40	983.60		983.60	233.91	15.00	734.69
555-555-222	D	1	27.63	40	1,105.20		1,105.20	263.28	15.00	826.92
476-666-666	D	2	27.14	32	868.48		868.48	206.11	15.00	647.37
576-666-666	D	1	27.63	45	1,105.20	207.23	1,312.43	313.32	15.00	984.11
266-666-666	D	3	24.59	29	713.11		713.11	168.59	15.00	529.52
466-666-666	D	2	27.14	33	895.62		895.62	212.66	15.00	667.96
444-444-444	D	1	27.63	40	1,105.20		1,105.20	263.28	15.00	826.92
522-222-222	N	2	30.21	40	1,208.40		1,208.40	288.20	15.00	905.20
143-444-433	N	3	27.37	40	1,094.80		1,094.80	260.77	15.00	819.03
243-343-433	N	3	27.37	40	1,094.80		1,094.80	260.77	15.00	819.03
433-333-333	N	3	27.37	41	1,094.80	41.06	1,135.86	270.68	15.00	850.18
334-333-333	N	2	30.21	40	1,208.40		1,208.40	288.20	15.00	905.20

The EMPLOYEE table fields

DDS Design - RemoteSystemsTempFiles\ZEUS.SENECACON.CA\QSYS.LIB\DT433A40.LIB\LAB8.FILE\RUNUPDATE.CLE - IBM Rational Developer for i

File Edit Source Compile Navigate Search Project Run Window Help

Properties Source Promoter Field Table Object Table Commands Log Error List Data Table

BCI433 SENECA/PAY/EMPLOYEE(EMPLOYEE)

P	FIRSTNAME	LASTNAME	PHONE	CITY	ADDRESS	PROVL	UNIONDUES	HIREDATE	YTDPRY	YTD TAX	EMPNO
1	Dalton	McGuinity	4,163,251,944	Toronto	RM 281 Queens Park	ON	0.00	2001-01-01	0.00	0.00	111,111,111
3	David	Miller	4,162,223,333	Toronto	100 Queen St. West	ON	0.00	2011-04-04	0.00	0.00	122,222,222
2	Stephen	Harper	6,132,229,933	Ottawa	24 Sussex Drive	ON	0.00	1998-03-07	0.00	0.00	123,123,123
1	Barack	Obama	9,056,859,555	Mississauga	122 Peter St.	ON	0.00	1995-12-01	0.00	0.00	133,333,333
3	Tom	Wong	9,053,334,044	Newmarket	122 Johns St.	ON	0.00	2012-03-09	0.00	0.00	143,444,433
2	William	Seneca	4,164,915,050	Toronto	122 The Pond Rd.	ON	0.00	2004-02-08	0.00	0.00	144,444,444
3	Michelle	Williams	4,169,994,444	Toronto	133 Queen St. W.	ON	0.00	2013-06-01	0.00	0.00	155,555,555
3	Kerry	Fraser	9,054,443,333	Mississauga	1444 Pine St.	ON	0.00	2014-07-07	0.00	0.00	166,666,666
3	Harry	Wang	9,054,443,333	Aurora	1334 Yonge St.	ON	0.00	2001-01-01	0.00	0.00	176,666,666
2	Bob	Rae	9,054,443,333	Richmond Hill	444 Hill Cr.	ON	0.00	2001-01-01	0.00	0.00	222,222,222
3	Gary	Singh	9,056,668,885	Aurora	444 Elgin St.	ON	0.00	2011-04-30	0.00	0.00	223,333,333
3	Matt	DeSalvo	4,169,985,855	Toronto	144 Queen St.	ON	0.00	2016-05-25	0.00	0.00	233,333,333
3	Kyle	Farnsworth	9,053,394,847	Aurora	44 Elgin St.	ON	0.00	2001-01-01	0.00	0.00	234,234,234
3	Randy	Johnson	4,165,958,474	Toronto	999 Aspen Cr.	ON	0.00	2004-01-01	0.00	0.00	243,343,433
1	Jeff	Karstens	9,057,675,748	Aurora	888 Landon Ave.	ON	0.00	2003-04-30	0.00	0.00	244,444,444
1	Cory	Liddle	9,053,333,367	Richmond Hill	55 Charles St.	ON	0.00	2001-01-01	0.00	0.00	255,446,666
1	Mike	Mussina	9,051,444,567	Richmond Hill	55 Kingston Ave.	ON	0.00	2010-03-22	0.00	0.00	255,555,555
3	Carl	Pavano	9,054,444,567	Richmond Hill	77 Wilson Heights	ON	0.00	2003-01-24	0.00	0.00	266,666,666
2	Sidney	Ponson	9,051,234,567	Richmond Hill	666 Wing Ave.	ON	0.00	2001-01-01	0.00	0.00	322,222,222
3	Scott	Proctor	9,051,234,567	Richmond Hill	443 Unity Blvd.	ON	0.00	2001-01-01	0.00	0.00	323,333,333
1	Darrell	Rasner	9,051,234,567	Richmond Hill	99 Oakmeadow Blvd.	ON	0.00	2012-02-22	0.00	0.00	333,333,333
2	Mariano	Rivera	9,051,234,567	Richmond Hill	66 Thomas St.	ON	0.00	2001-01-01	0.00	0.00	334,333,333
3	Tanyon	Sturtz	9,051,234,567	Richmond Hill	976 Hillcrest St.	ON	0.00	2001-01-01	0.00	0.00	344,444,444
3	Jose	Veras	9,051,234,567	Aurora	666 Phillips St.	ON	0.00	2012-01-01	0.00	0.00	345,345,345
2	Ron	Villone	9,051,234,567	Mississauga	55 Liddle Rd.	ON	0.00	2014-04-22	0.00	0.00	355,555,555

## BCI433 Lab 8 (Summer 2018)

The WORKWEEK table fields

The screenshot shows the DDS Design application interface. The title bar reads "DDS Design - RemoteSystemsTempFiles/ZEUS.SENECAC.ON.C...". The menu bar includes File, Edit, Source, Compile(G), Navigate, Search, Project, Run, Window, and Help. The toolbar contains various icons for file operations and development. The "Quick Access" bar shows "Remote System Explorer" and "DDS Design". The main workspace displays a table structure for "BCI433:SENECAPAY/WORKWEEK1(WORKWEEK1)". The table has four columns: \*RCDNBR, EMPNUM, WORKSHIFT, and HRSWORKED. The data rows are numbered 1 through 7.

*RCDNBR	EMPNUM	WORKSHIFT	HRSWORKED
1	333,333,333	D	42
2	122,222,222	D	36
3	322,222,222	D	40
4	422,222,222	D	40
5	534,343,333	D	33
6	133,333,333	D	15
7	244,444,444	D	40