BCI433 Lab 7 (Summer 2018)

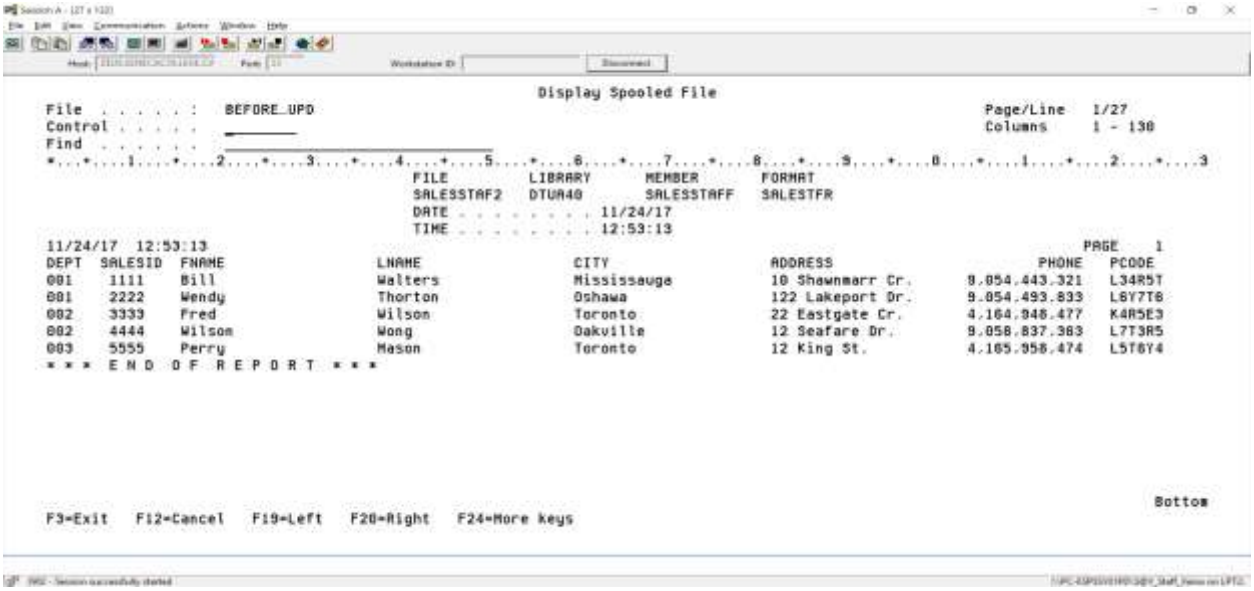
Lab objectives:

- Update a master file with adds/changes and deletes from a transaction file
- Use a CLLE driver program to automate testing of the update program
- View the journaled changes made to the master file

Requirements to pass the lab:

All the parts for this application will be handed out. The RPGLE program, the CLLE driver program, and the master and transaction files. You need to adapt this application so you can update a master file in your own collection. **Successfully run the CLLE program updating data in a collection created by you and be able to show the add, update and delete journaled changes.**

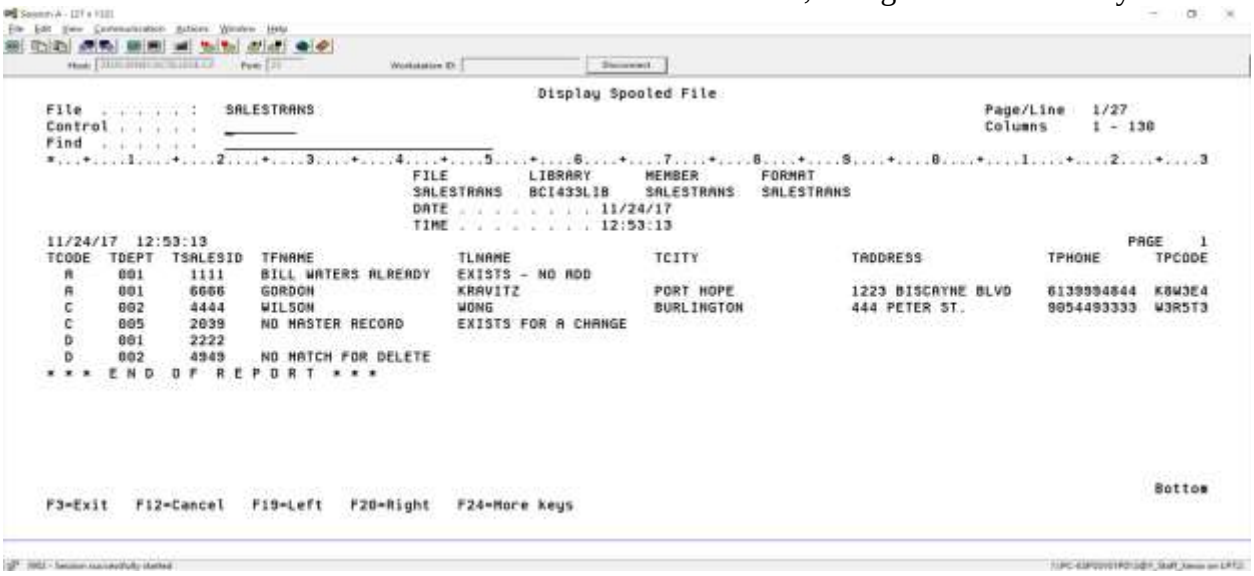
Call RunLab7
SALESSTAF2 – data comes from SALESSTAFF in BCI433LIB



```
                                    Display Spooled File
File . . . . . :   BEFORE_UPD                                                  Page/Line   1/27
Control . . . . .  _______                                                     Columns     1 - 130
Find . . . . . .   ________________________________
*...+....1....+....2....+....3....+....4....+....5....+....6....+....7....+....8....+....9....+....0....+....1....+....2....+....3
                                FILE        LIBRARY      MEMBER       FORMAT
                                SALESSTAF2  DTUA40       SALESSTAFF   SALESTFR
                                DATE . . . . . . . . . 11/24/17
                                TIME . . . . . . . . . 12:53:13
11/24/17  12:53:13                                                                                  PAGE    1
DEPT  SALESID  FNAME                LNAME                CITY                 ADDRESS                    PHONE   PCODE
001    1111    Bill                 Walters              Mississauga          10 Shawnmarr Cr.      9.054.443.321   L34R5T
001    2222    Wendy                Thorton              Oshawa               122 Lakeport Dr.      9.054.493.833   L6Y7T6
002    3333    Fred                 Wilson               Toronto              22 Eastgate Cr.       4.164.948.477   K4R5E3
002    4444    Wilson               Wong                 Oakville             12 Seafare Dr.        9.058.837.363   L7T3R5
003    5555    Perry                Mason                Toronto              12 King St.           4.165.958.474   L5T6Y4
* * *  E N D   O F   R E P O R T  * * *

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

Transaction File SALESTRANS in BCI433LIB indicates adds, changes and deletes to your SALESTAFF table

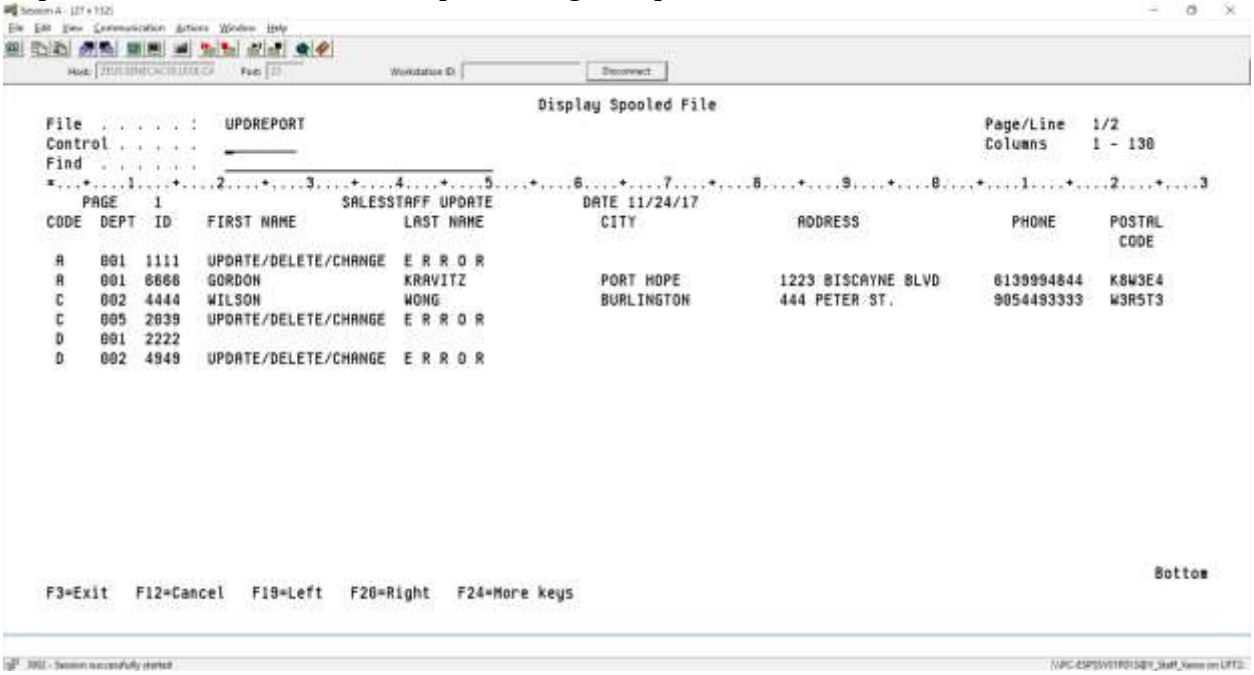


```
                                    Display Spooled File
File . . . . . :   SALESTRANS                                                  Page/Line   1/27
Control . . . . .  _______                                                     Columns     1 - 130
Find . . . . . .   ________________________________
*...+....1....+....2....+....3....+....4....+....5....+....6....+....7....+....8....+....9....+....0....+....1....+....2....+....3
                                FILE        LIBRARY      MEMBER       FORMAT
                                SALESTRANS  BCI433LIB    SALESTRANS   SALESTRANS
                                DATE . . . . . . . . . 11/24/17
                                TIME . . . . . . . . . 12:53:13
11/24/17  12:53:13                                                                                  PAGE    1
TCODE  TDEPT  TSALESID  TFNAME                TLNAME                TCITY                TADDRESS              TPHONE      TPCODE
  A     001     1111    BILL WATERS ALREADY   EXISTS - NO ADD
  A     001     6666    GORDON                KRAVITZ               PORT HOPE            1223 BISCAYNE BLVD    6139994844  K8W3E4
  C     002     4444    WILSON                WONG                  BURLINGTON           444 PETER ST.         9054493333  W3R5T3
  C     005     2039    NO MASTER RECORD      EXISTS FOR A CHANGE
  D     001     2222
  D     002     4949    NO MATCH FOR DELETE
* * *  E N D   O F   R E P O R T  * * *

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

BCI433 Lab 7 (Summer 2018)

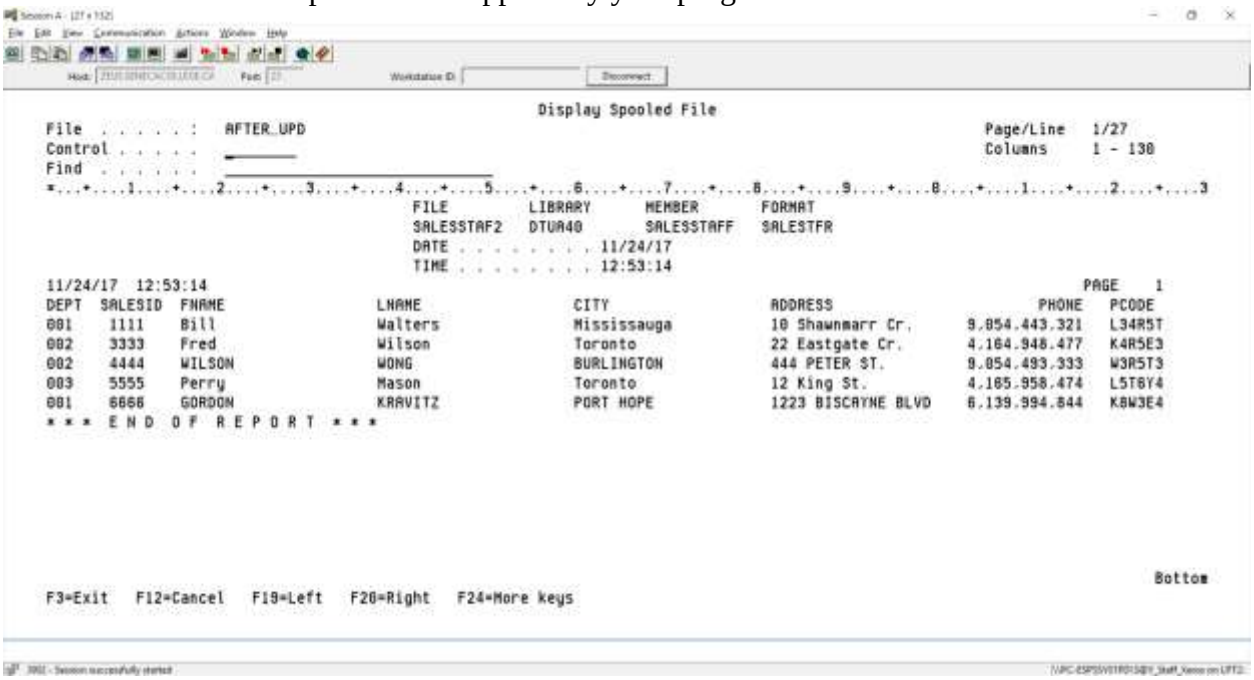
Report on what occurred when implementing the updates from the transaction file



```
                                    Display Spooled File
File  . . . . . :   UPDREPORT                                                  Page/Line   1/2
Control . . . . .                                                              Columns     1 - 130
Find  . . . . . .
*...+....1....+....2....+....3....+....4....+....5....+....6....+....7....+....8....+....9....+....0....+....1....+....2....+....3
    PAGE    1                  SALESSTAFF UPDATE          DATE 11/24/17
CODE  DEPT  ID    FIRST NAME            LAST NAME            CITY                ADDRESS                PHONE      POSTAL
                                                                                                                     CODE
 A    001  1111   UPDATE/DELETE/CHANGE  E R R O R
 A    001  6666   GORDON                KRAVITZ              PORT HOPE           1223 BISCAYNE BLVD     6139994844   K8W3E4
 C    002  4444   WILSON                WONG                 BURLINGTON          444 PETER ST.          9054493333   W3R5T3
 C    005  2039   UPDATE/DELETE/CHANGE  E R R O R
 D    001  2222
 D    002  4949   UPDATE/DELETE/CHANGE  E R R O R

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

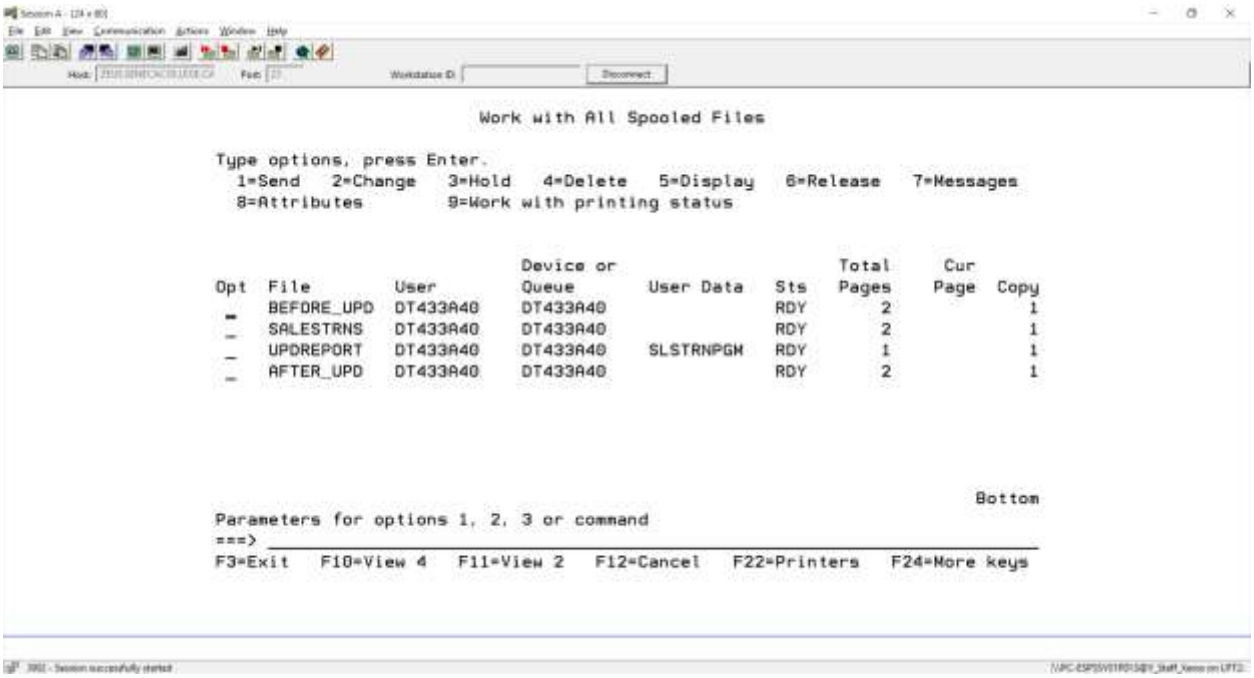
SALESTAFF after the updates were applied by your program



```
                                    Display Spooled File
File  . . . . . :   AFTER_UPD                                                  Page/Line   1/27
Control . . . . .                                                              Columns     1 - 130
Find  . . . . . .
*...+....1....+....2....+....3....+....4....+....5....+....6....+....7....+....8....+....9....+....0....+....1....+....2....+....3
                                  FILE         LIBRARY      MEMBER       FORMAT
                                  SALESSTAF2   DTUA40       SALESSTAFF   SALESTFR
                                  DATE . . . . . . . . . 11/24/17
                                  TIME . . . . . . . . . 12:53:14
11/24/17  12:53:14                                                                                          PAGE    1
DEPT  SALESID  FNAME                LNAME                CITY                 ADDRESS                     PHONE   PCODE
001    1111    Bill                 Walters              Mississauga          10 Shawnmarr Cr.      9.054.443.321   L34R5T
002    3333    Fred                 Wilson               Toronto              22 Eastgate Cr.       4.164.948.477   K4R5E3
002    4444    WILSON               WONG                 BURLINGTON           444 PETER ST.         9.054.493.333   W3R5T3
003    5555    Perry                Mason                Toronto              12 King St.           4.165.958.474   L5T6Y4
001    6666    GORDON               KRAVITZ              PORT HOPE            1223 BISCAYNE BLVD    6.139.994.844   K8W3E4
* * *  E N D   O F   R E P O R T  * * *

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

All the spooled files generated with meaningful names.



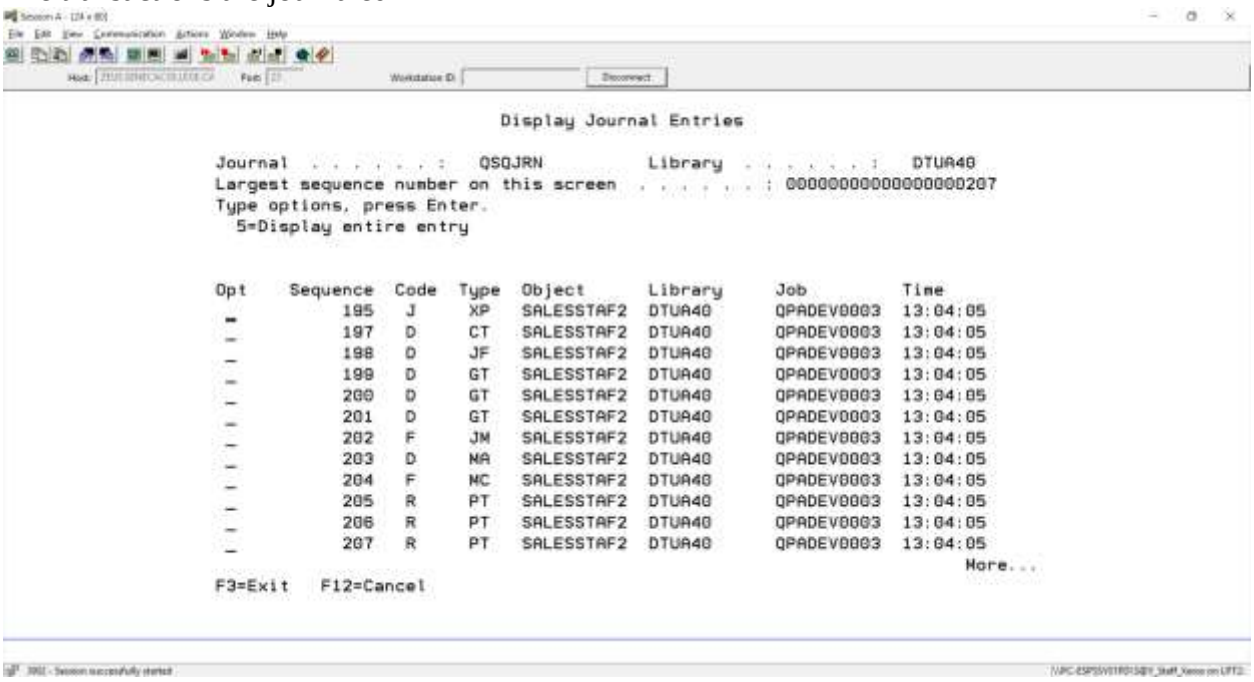
```
                         Work with All Spooled Files

Type options, press Enter.
  1=Send   2=Change   3=Hold   4=Delete   5=Display   6=Release   7=Messages
  8=Attributes        9=Work with printing status

                              Device or                        Total     Cur
Opt  File        User         Queue       User Data   Sts     Pages    Page  Copy
 _   BEFORE_UPD  DT433A40     DT433A40                RDY        2             1
 _   SALESTRNS   DT433A40     DT433A40                RDY        2             1
 _   UPDREPORT   DT433A40     DT433A40    SLSTRNPGM   RDY        1             1
 _   AFTER_UPD   DT433A40     DT433A40                RDY        2             1

                                                                          Bottom
Parameters for options 1, 2, 3 or command
===> ____________________________________________________________________________
F3=Exit   F10=View 4   F11=View 2   F12=Cancel   F22=Printers   F24=More keys
```

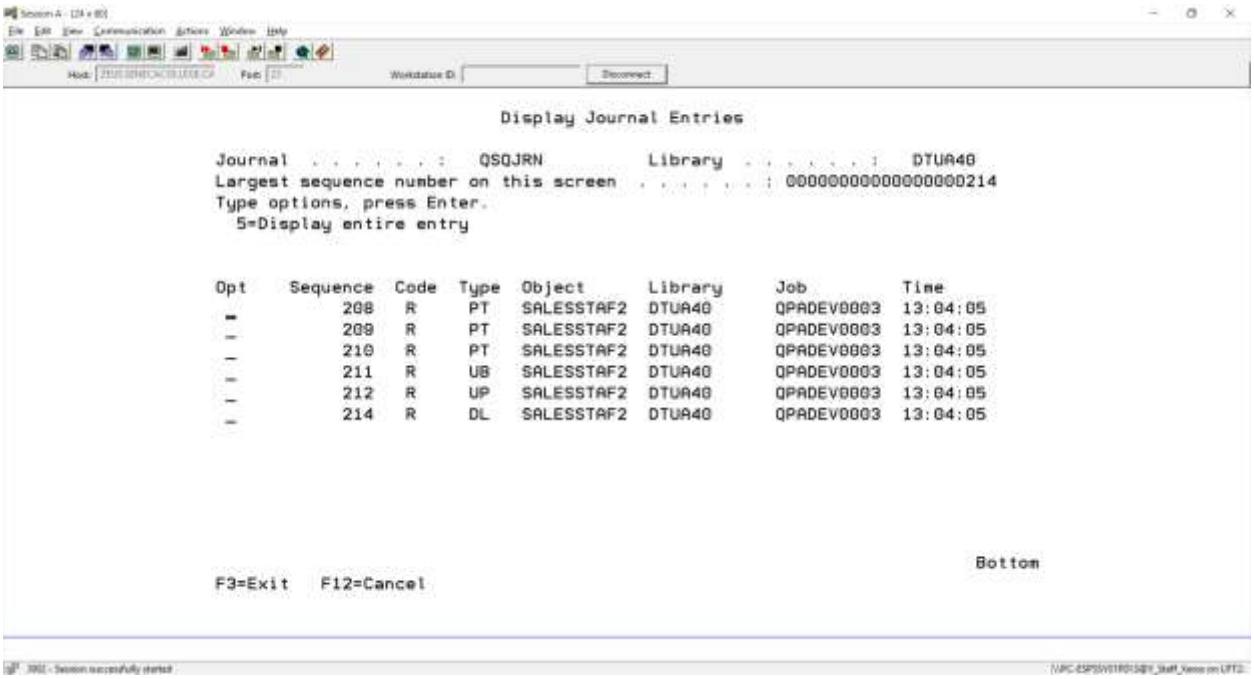
The transactions are journaled



```
                         Display Journal Entries

Journal . . . . . . :   QSQJRN          Library . . . . . . :   DTUA40
Largest sequence number on this screen . . . . . . : 00000000000000000207
Type options, press Enter.
  5=Display entire entry

Opt    Sequence  Code  Type  Object      Library     Job         Time
 _          195   J     XP   SALESSTAF2  DTUA40      QPADEV0003  13:04:05
 _          197   D     CT   SALESSTAF2  DTUA40      QPADEV0003  13:04:05
 _          198   D     JF   SALESSTAF2  DTUA40      QPADEV0003  13:04:05
 _          199   D     GT   SALESSTAF2  DTUA40      QPADEV0003  13:04:05
 _          200   D     GT   SALESSTAF2  DTUA40      QPADEV0003  13:04:05
 _          201   D     GT   SALESSTAF2  DTUA40      QPADEV0003  13:04:05
 _          202   F     JM   SALESSTAF2  DTUA40      QPADEV0003  13:04:05
 _          203   D     MA   SALESSTAF2  DTUA40      QPADEV0003  13:04:05
 _          204   F     MC   SALESSTAF2  DTUA40      QPADEV0003  13:04:05
 _          205   R     PT   SALESSTAF2  DTUA40      QPADEV0003  13:04:05
 _          206   R     PT   SALESSTAF2  DTUA40      QPADEV0003  13:04:05
 _          207   R     PT   SALESSTAF2  DTUA40      QPADEV0003  13:04:05
                                                                    More...
F3=Exit   F12=Cancel
```

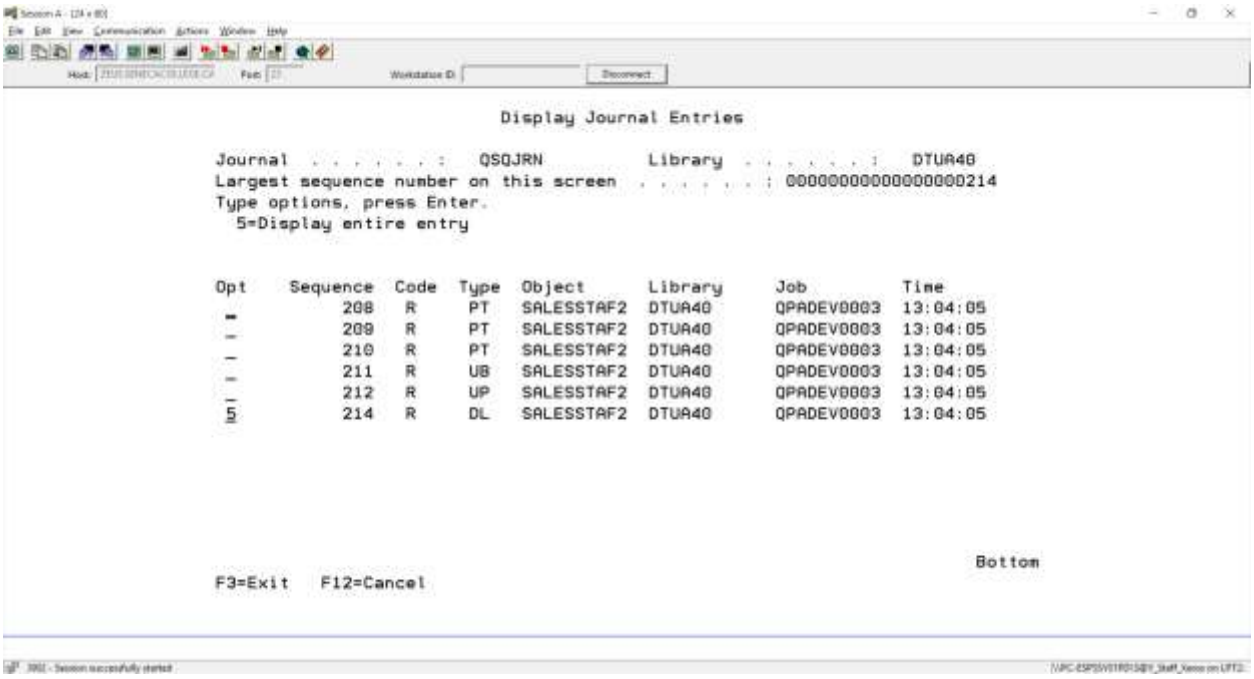


```
                              Display Journal Entries

Journal  . . . . . :   QSQJRN          Library  . . . . . :   DTUA40
Largest sequence number on this screen . . . . . : 00000000000000000214
Type options, press Enter.
  5=Display entire entry

Opt    Sequence  Code  Type  Object      Library     Job         Time
 -          208   R     PT   SALESSTAF2  DTUA40      QPADEV0003  13:04:05
 -          209   R     PT   SALESSTAF2  DTUA40      QPADEV0003  13:04:05
 -          210   R     PT   SALESSTAF2  DTUA40      QPADEV0003  13:04:05
 -          211   R     UB   SALESSTAF2  DTUA40      QPADEV0003  13:04:05
 -          212   R     UP   SALESSTAF2  DTUA40      QPADEV0003  13:04:05
 -          214   R     DL   SALESSTAF2  DTUA40      QPADEV0003  13:04:05


                                                                    Bottom
F3=Exit    F12=Cancel
```

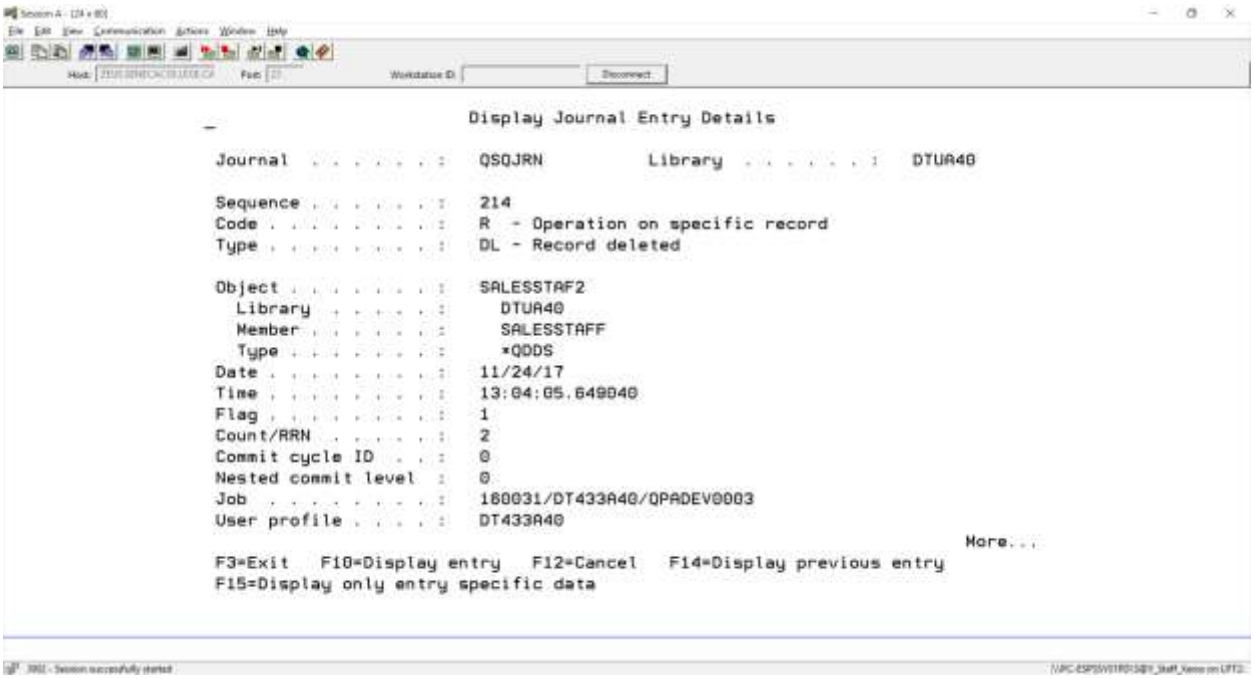


```
                              Display Journal Entries

Journal  . . . . . :   QSQJRN          Library  . . . . . :   DTUA40
Largest sequence number on this screen . . . . . : 00000000000000000214
Type options, press Enter.
  5=Display entire entry

Opt    Sequence  Code  Type  Object      Library     Job         Time
 -          208   R     PT   SALESSTAF2  DTUA40      QPADEV0003  13:04:05
 -          209   R     PT   SALESSTAF2  DTUA40      QPADEV0003  13:04:05
 -          210   R     PT   SALESSTAF2  DTUA40      QPADEV0003  13:04:05
 -          211   R     UB   SALESSTAF2  DTUA40      QPADEV0003  13:04:05
 -          212   R     UP   SALESSTAF2  DTUA40      QPADEV0003  13:04:05
 5          214   R     DL   SALESSTAF2  DTUA40      QPADEV0003  13:04:05


                                                                    Bottom
F3=Exit    F12=Cancel
```



Steps to successfully run lab 7

1. Create a source physical file called LAB7

2. Create a collection using parts of your id (mine is DM433B40 so I will use DM and B40. The U stands for update and is common for all ids.

CREATE COLLECTION DMUB40

3. Copy the provided code in BCI433LIB/Lab7Code. The RPGLE program is called SLSTRNPGM and the CLLE program is called RUNLAB7. Study these programs. The code has been supplied for both on the next pages. You will need to write out four lines that will be provided in class for each program. These will be included in your copied members before compiling.

4. Also change the CLLE code so it refers to your data, journal and output queue.

RPGLE program to apply the updates

```
 FSALESTRANSIF   E             DISK    RENAME(SALESTRANS:SALESTRANR)
 FSALESSTAF2UF A E           K DISK
 FQPRINT    O    F  132        PRINTER OFLIND(*INOF)
 D SALESTRANSDS    DS
 D   TDEPT
 D   TSALESID
 D   TFNAME
 D   TLNAME
 D   TCITY
 D   TADDRESS
 D   TPCODE
 D SALESSTAF2DS    DS
 D    DEPT
 D    SALESID
 D    FNAME
 D    LNAME
 D    CITY
 D    ADDRESS
 D    PCODE
 D FullKey         DS                  LikeRec(SALESTFR: *Key)
 C/FREE
              EXCEPT  HEADINGS;
              READ    SALESTRANS;
              DOW NOT %EOF;

                 ____________________________________________________________

                 ____________________________________________________________

                 SELECT;
                   WHEN %FOUND(SALESSTAF2);
                   SELECT;
                      WHEN TCODE = 'C';
                         EXSR CHGREC;
                      WHEN TCODE = 'D';
                         EXSR DELREC;
                      OTHER;
                         EXSR ERROR;
                   ENDSL;
                   WHEN NOT %FOUND(SALESSTAF2);
                      IF TCODE = 'A';
                         EXSR ADDREC;
                      ELSE;
                         EXSR ERROR;
                      ENDIF;
                   WHEN %ERROR;
                         EXSR ERROR;
                   ENDSL;
                   EXCEPT DETAIL;
                   READ   SALESTRANS;
              ENDDO;
              *INLR = *ON;
              RETURN;
```

```
BEGSR  ADDREC;
                ____________________________________________

                ____________________________________________


                WRITE SALESTFR;
     ENDSR;
     BEGSR  CHGREC;
                SALESSTAF2DS = SALESTRANSDS;
                Phone        = %Dec(TPhone:10:0);
                UPDATE SALESTFR;
     ENDSR;
     BEGSR  DELREC;
                DELETE SALESTFR;
     ENDSR;
     BEGSR  ERROR;
                TFNAME = 'UPDATE/DELETE/CHANGE';
                TLNAME = 'E R R O R';
     ENDSR;
   /END-FREE
  OQPRINT    E            HEADINGS       2 02
  O                                          8 'PAGE'
  O                       PAGE              13
  O
                        50 'SALESSTAFF UPDATE'
  O                                         64 'DATE'
  O                       UDATE         Y   73
  O          E            HEADINGS       1
  O                                          4 'CODE'
  O                                         10 'DEPT'
  O                                         14 'ID'
  O                                         28 'FIRST NAME'
  O                                         49 'LAST NAME'
  O                                         66 'CITY'
  O                                         91 'ADDRESS'
  O                                        113 'PHONE'
  O                                        125 'POSTAL'
  O          E            HEADINGS       2
  O                                        124 'CODE'
  O          E            DETAIL         1
  O                       TCODE             2
  O                       TDEPT             9
  O                       TSALESID         15
  O                       TFNAME           38
  O                       TLNAME           60
  O                       TCITY            82
  O                       TADDRESS        102
  O                       TPHONE          116
  O                       TPCODE          125
```

CLLE driver program

```
/* This program will not work until have it refer to your own collection and
userprofile */

PGM
   DLTF DMUB40/SALESSTAF2
      MONMSG     MSGID(CPF2105)

_____________________________________________________________________________

_____________________________________________________________________________

_____________________________________________________________________________

_____________________________________________________________________________


   CLROUTQ DM433B40

   OVRPRTF FILE(QPQUPRFIL) SPLFNAME(BEFORE_UPD)
   RUNQRY *NONE DMUB40/SALESSTAF2 *PRINTER

   OVRPRTF FILE(QPQUPRFIL) SPLFNAME(SALESTRANS)
   RUNQRY *NONE BCI433LIB/SALESTRANS *PRINTER

   OVRPRTF FILE(QPRINT) SPLFNAME(UPDREPORT)
   OVRDBF SALESSTAF2 DMUB40/SALESSTAF2
   CALL SLSTRNPGM

   OVRPRTF FILE(QPQUPRFIL) SPLFNAME(AFTER_UPD)
   RUNQRY *NONE DMUB40/SALESSTAF2 *PRINTER

   DSPSPLF BEFORE_UPD
   DSPSPLF SALESTRANS
   DSPSPLF UPDREPORT
   DSPSPLF AFTER_UPD

    WRKOUTQ DM433A40

   DSPJRN JRN(DMUB40/QSQJRN) FILE((DTUB40/SALESSTAF2))

ENDPGM
```