

TEAMWARE SOLUTIONS

Mainframe Development Assignment – Calculate No.Of Leaves taken by employee.

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Assignment questions:

Objective:

This assignment aims to:

1. Read employee data from an input PS file
2. Calculate number of working days, total days in month & leaves
3. Perform calculations using a COBOL subprogram
4. Write results to an output PS file
5. Handle leap year and month days dynamically
6. Use JCL to compile, link and run COBOL programs

2. Input File Structure (INCOPY)

```
TSO
File Edit View Tools Help
Clear Erase PA1 PA2 PA3 EraseF
Edit Settings Menu Utilities Compilers Test Help

EDIT      GAMA03.COPYLIB(INCOPY) - 01.14      Columns 00001 00072
Command  --->                               Scroll ---> CSR

***** Top of Data *****
000900      01  IN-REC.
001000      05  IN-EMPID      PIC X(04).
001100      05  FILLER      PIC X(01).
001200      05  IN-WORKED-DAYS  PIC 9(03).
001300      05  FILLER      PIC X(72).
***** Bottom of Data *****

F1=Help      F2=Split      F3=Exit      F5=Rfind      F6=Rchange      F7=Up
F8=Down      F9=Swap      F10=Left      F11=Right      F12=Cancel
COBOL      - JCL      *DSLST      ISFPCU41

Online      4,15
```

➔ Inserting records to INCOPY through file manager (13.2):

TSO

File Edit View Tools Help

Clear Erase PA1 PA2 PA3 EraseF

Process Options Help

Edit GAMA03.TEST.INPUT.DATA Top of 9

Command ==> Record AT TOP Scroll PAGE

Format TABL

| IN-EMPID | FILLER | IN-WORKED-DAYS | FILLER | |
|----------|-------------|----------------|-----------------------------------|---|
| #2 | #3 | #4 | #5 | + |
| AN 1:4 | AN 5:1 | ZD 6:3 | AN 9:72 | |
| <--> | - | <--> | <---+---1---+---2---+---3---+---4 | |
| ***** | Top of data | **** | | |
| 000001 | emp1 | | 25 | |
| 000002 | emp2 | | 10 | |
| 000003 | emp3 | | 31 | |
| 000004 | emp4 | | 26 | |
| 000005 | emp5 | | 28 | |
| 000006 | emp6 | | 17 | |
| 000007 | emp7 | | 23 | |
| 000008 | emp8 | | 30 | |
| 000009 | emp9 | | 21 | |
| ***** | End of data | **** | | |

F1=Help F2=Zoom F3=Exit F4=Cretrieve F5=RFind F6=RChange

F7=Up F8=Down F9=Swap F10=Left F11=Right F12=Cancel

COBOL JCL -DSLIST ISFPCU41 *FILEMGR

Online 4,15

3. Output File Structure (OUTCOPY) our copybook.

TSO

File Edit View Tools Help

Clear Erase PA1 PA2 PA3 EraseF

File Edit Edit_Settings Menu Utilities Compilers Test Help

EDIT GAMA03.COPYLIB(OUTCOPY) - 01.12 Columns 00001 00072

Command ==> Scroll ==> CSR

***** Top of Data *****

| | | | |
|--------|----|------------|------------|
| 000900 | 01 | OUT-REC. | |
| 001000 | 05 | OUT-EMPID | PIC X(04). |
| 001100 | 05 | FILLER | PIC X(01). |
| 001200 | 05 | OUT-WORKED | PIC 9(03). |
| 001300 | 05 | FILLER | PIC X(01). |
| 001400 | 05 | OUT-LEAVES | PIC 9(03). |
| 001500 | 05 | FILLER | PIC X(68). |

***** Bottom of Data *****

F1=Help F2=Split F3=Exit F5=Rfind F6=Rchange F7=Up
F8=Down F9=Swap F10=Left F11=Right F12=Cancel

COBOL JCL *DLSLIST -ISFPCU4 FILEMGR

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4. Main Program (MAINPRG):

Performs:

- ACCEPT month-year from SYSIN
- READ input file
- CALL subprogram
- WRITE output file

```
File Edit View Tools Help
Clear Erase PA1 PA2 PA3 EraseF
File Edit Edit_Settings Menu Utilities Compilers Test Help
-----
EDIT      GAMA03.COBOL.SRCLIB(MAINPRG) - 01.02      Member MAINPRG saved
Command ==>                                     Scroll ==> CSR
***** Top of Data *****
000100      IDENTIFICATION DIVISION.
000200      PROGRAM-ID. MAINPRG.
000300      ENVIRONMENT DIVISION.
000400      INPUT-OUTPUT SECTION.
000500      FILE-CONTROL.
000600          SELECT EMPIN      ASSIGN TO EMPIN.
000700          SELECT EMPOUT     ASSIGN TO EMPOUT.
000800      DATA DIVISION.
000900      FILE SECTION.
001000      FD EMPIN.
001100      COPY INCOPY.
001200      FD EMPOUT.
001300      COPY OUTCOPY.
001400      WORKING-STORAGE SECTION.
001500          01 WS-JCL-DATE      PIC 9(06).
001600          01 WS-YEAR          PIC 9(04).
001700          01 WS-MONTH         PIC 9(02).
001710          01 WS-DAYS-IN-MONTH PIC 9(02).
001720          01 WS-LEAVES       PIC 9(03).
001730
001800          01 EOF-SW          PIC X VALUE 'N'.
001900      PROCEDURE DIVISION.
002000          DISPLAY 'PROGRAM MAINPRG STARTED'.
002100          ACCEPT WS-JCL-DATE.
F1=Help      F2=Split      F3=Exit      F5=Rfind      F6=Rchange      F7=Up
F8=Down      F9=Swap      F10=Left     F11=Right     F12=Cancel
-JCL      OUTPUT      SUBPROG *MAINPRG SPOOL
Online      415
```

```
File Edit View Tools Help
Clear Erase PA1 PA2 PA3 EraseF
File Edit Edit_Settings Menu Utilities Compilers Test Help
-----
EDIT      GAMA03.COBOL.SRCLIB(MAINPRG) - 01.02      Columns 00001 00072
Command ==>                                     Scroll ==> CSR
002200      MOVE WS-JCL-DATE(1:4) TO WS-YEAR.
002300      MOVE WS-JCL-DATE(5:2) TO WS-MONTH.
002400      DISPLAY 'USING DATE = ' WS-JCL-DATE.
002500      OPEN INPUT EMPIN
002600      OPEN OUTPUT EMPOUT
002700      DISPLAY 'FILES OPENED SUCCESSFULLY'.
002800      PERFORM UNTIL EOF-SW = 'Y'
002900          READ EMPIN
003000          AT END
003100              MOVE 'Y' TO EOF-SW
003200              DISPLAY 'NO MORE RECORDS TO READ'
003300          NOT AT END
003400              DISPLAY 'READING RECORD FOR EMPID = ' IN-EMPID
003500              DISPLAY 'CALLING SUBPROGRAM CALCSUB...'
003600              CALL 'CALCSUB' USING
003700                  WS-YEAR
003800                  WS-MONTH
003900                  IN-WORKED-DAYS
004000                  WS-DAYS-IN-MONTH
004100                  WS-LEAVES
004200              DISPLAY 'RETURNED FROM SUBPROGRAM.'
004300              MOVE IN-EMPID TO OUT-EMPID
004400              MOVE IN-WORKED-DAYS TO OUT-WORKED
004500              MOVE WS-LEAVES TO OUT-LEAVES
004600              WRITE OUT-REC
F1=Help      F2=Split      F3=Exit      F5=Rfind      F6=Rchange      F7=Up
F8=Down      F9=Swap      F10=Left     F11=Right     F12=Cancel
-JCL      OUTPUT      SUBPROG *MAINPRG SPOOL
Online      415
```

```

File Edit View Tools Help
Clear Erase PA1 PA2 PA3 EraseF
File Edit Edit Settings Menu Utilities Compilers Test Help
-----
EDIT GAMA03.COBOL.SRCLIB(MAINPRG) - 01.02 Columns 00001 00072
Command ==> | Scroll ==> CSR
004700 |
004800 | END-READ DISPLAY 'OUTPUT RECORD WRITTEN'
004900 | END-PERFORM.
005000 | CLOSE EMPIN EMPOUT.
005100 | DISPLAY 'PROGRAM COMPLETED SUCCESSFULLY'.
005200 | STOP RUN.
***** Bottom of Data *****

F1=Help F2=Split F3=Exit F5=Rfind F6=Rchange F7=Up
F8=Down F9=Swap F10=Left F11=Right F12=Cancel
-JCL OUTPUT SUBPROG *MAINPRG SPOOL
Online 415

```

4. Subprogram – CALCSUB

Performs:

- Month days calculation
- Leap year check
- Leave calculation (DaysInMonth – WorkedDays)

```

File Edit View Tools Help
Clear Erase PA1 PA2 PA3 EraseF
File Edit Edit Settings Menu Utilities Compilers Test Help
-----
EDIT GAMA03.COBOL.SRCLIB(CALCSUB) - 01.02 Member CALCSUB saved
Command ==> | Scroll ==> CSR
=COLS> -----+-----1-----+-----2-----+-----3-----+-----4-----+-----5-----+-----6-----+-----7-----
***** Top of Data *****
000100 | IDENTIFICATION DIVISION.
000200 | PROGRAM-ID. CALCSUB.
000300 | DATA DIVISION.
000400 | LINKAGE SECTION.
000500 | 01 LS-YEAR PIC 9(04).
000600 | 01 LS-MONTH PIC 9(02).
000700 | 01 LS-WORKED PIC 9(03).
000800 | 01 LS-DAYS-IN-MONTH PIC 9(02).
000900 | 01 LS-LEAVES PIC 9(03).
001000 | PROCEDURE DIVISION USING
001100 | LS-YEAR
001200 | LS-MONTH
001300 | LS-WORKED
001400 | LS-DAYS-IN-MONTH
001500 | LS-LEAVES.
001600 | *-----*
001700 | * DISPLAY SUBPROGRAM STARTED *
001800 | *-----*
001900 | * DISPLAY 'SUBPROGRAM CALCSUB STARTED FOR MONTH = ' LS-MONTH. *
002000 | *-----*
002100 | * DAYS IN MONTH + LEAP YEAR CALCULATION *
002200 | *-----*
002300 | EVALUATE LS-MONTH
F1=Help F2=Split F3=Exit F5=Rfind F6=Rchange F7=Up
F8=Down F9=Swap F10=Left F11=Right F12=Cancel
-JCL OUTPUT *SUBPROG -MAINPRG SPOOL
Online 415

```



```
File Edit View Tools Help
Clear Erase PA1 PA2 PA3 Erasef
File Edit Edit_Settings Menu Utilities Compilers Test Help
EDIT GAMA03.COBOL.SRCLIB(CALCSUB) - 01.02 Columns 00001 00072
Command ==> Scroll ==> CSR
=COLS> -----1-----2-----3-----4-----5-----6-----7-----
002400      WHEN 01 MOVE 31 TO LS-DAYS-IN-MONTH
002500      WHEN 02
002600          IF (FUNCTION MOD(LS-YEAR 400) = 0)
002700              MOVE 29 TO LS-DAYS-IN-MONTH
002800          ELSE
002900              IF (FUNCTION MOD(LS-YEAR 100) = 0)
003000                  MOVE 28 TO LS-DAYS-IN-MONTH
003100              ELSE
003200                  IF (FUNCTION MOD(LS-YEAR 4) = 0)
003300                      MOVE 29 TO LS-DAYS-IN-MONTH
003400                  ELSE
003500                      MOVE 28 TO LS-DAYS-IN-MONTH
003600              END-IF
003700          END-IF
003800      END-IF
003900      WHEN 03 MOVE 31 TO LS-DAYS-IN-MONTH
004000      WHEN 04 MOVE 30 TO LS-DAYS-IN-MONTH
004100      WHEN 05 MOVE 31 TO LS-DAYS-IN-MONTH
004200      WHEN 06 MOVE 30 TO LS-DAYS-IN-MONTH
004300      WHEN 07 MOVE 31 TO LS-DAYS-IN-MONTH
004400      WHEN 08 MOVE 31 TO LS-DAYS-IN-MONTH
004500      WHEN 09 MOVE 30 TO LS-DAYS-IN-MONTH
004600      WHEN 10 MOVE 31 TO LS-DAYS-IN-MONTH
004700      WHEN 11 MOVE 30 TO LS-DAYS-IN-MONTH
F1=Help      F2=Split      F3=Exit      F5=Rfind      F6=Rchange      F7=Up
F8=Down      F9=Swap      F10=Left     F11=Right     F12=Cancel
JCL          OUTPUT      *SUBPROG -MAINPRG SPOOL
Online 415
```

```
File Edit View Tools Help
Clear Erase PA1 PA2 PA3 Erasef
File Edit Edit_Settings Menu Utilities Compilers Test Help
EDIT GAMA03.COBOL.SRCLIB(CALCSUB) - 01.02 Columns 00001 00072
Command ==> Scroll ==> CSR
=COLS> -----1-----2-----3-----4-----5-----6-----7-----
004800      WHEN 12 MOVE 31 TO LS-DAYS-IN-MONTH
004900      END-EVALUATE.
005000      *-----*
005100      *   INVALID WORKED-DAYS HANDLING   *
005200      *-----*
005300      IF LS-WORKED > LS-DAYS-IN-MONTH
005400          DISPLAY 'WARNING: WORKED DAYS MORE THAN POSSIBLE: '
005410          LS-WORKED
005500          DISPLAY 'SETTING LEAVES = 000'
005600          MOVE 0 TO LS-LEAVES
005700      ELSE
005800          COMPUTE LS-LEAVES = LS-DAYS-IN-MONTH - LS-WORKED
005900          IF LS-LEAVES < 0
006000              MOVE 0 TO LS-LEAVES
006010          END-IF
006020      END-IF
006100      *-----*
006200      *   SUBPROGRAM END   *
006300      *-----*
006400      DISPLAY 'CALCSUB COMPLETED FOR MONTH = ' LS-MONTH
006500      DISPLAY '-----'.
006600      GOBACK.
***** Bottom of Data *****
F1=Help      F2=Split      F3=Exit      F5=Rfind      F6=Rchange      F7=Up
F8=Down      F9=Swap      F10=Left     F11=Right     F12=Cancel
JCL          OUTPUT      *SUBPROG -MAINPRG SPOOL
Online 415
```

6. JCL to compile and run our program:

```
File Edit View Tools Help
Clear Erase PA1 PA2 PA3 EraseF
File Edit Edit_Settings Menu Utilities Compilers Test Help
-----
EDIT          GAMA03.JCLLIB(MYJCL) - 01.22          Columns 00001 00072
Command ==>                                         Scroll ==> CSR
***** Top of Data *****
000100 //GAMA03R JOB MSGLEVEL=(1,1),NOTIFY=&SYSUID,COND=(4,LT)
000200 //MYPROC JCLLIB ORDER=(MATE1.PROCLIB)
000300 //*
000400 // SET PROG=MAINPRG
000500 //*****
000600 //*  COMPILE AND LINK-EDIT SUBPROGRAM
000700 //*****
000800 //SUBCMP EXEC COBOLCL,
000900 //          COPYLIB=GAMA03.COPYLIB,
001000 //          LOADLIB=GAMA03.LOADLIB,
001100 //          SRCLIB=GAMA03.COBOL.SRCLIB,
001200 //          MEMBER=CALCSUB
001300 //*****
001400 //*  COMPILE AND LINK-EDIT MAIN PROGRAM
001500 //*****
001600 //MAINCMP EXEC COBOLCL,
001700 //          COPYLIB=GAMA03.COPYLIB,
001800 //          LOADLIB=GAMA03.LOADLIB,
001900 //          SRCLIB=GAMA03.COBOL.SRCLIB,
002000 //          MEMBER=&PROG.
002100 //*****
002200 //*  DELETE OLD OUTPUT FILE (SO NEW ONE CAN BE CREATED)
002300 //*****
002400 //DELSTEP EXEC PGM=IEFBR14
F1=Help F2=Split F3=Exit F5=Rfind F6=Rchange F7=Up
F8=Down F9=Swap F10=Left F11=Right F12=Cancel
*JCL      OUTPUT      -SUBPROG MAINPRG      SPOOL
```

```
File Edit View Tools Help
Clear Erase PA1 PA2 PA3 EraseF
File Edit Edit_Settings Menu Utilities Compilers Test Help
-----
EDIT          GAMA03.JCLLIB(MYJCL) - 01.22          Columns 00001 00072
Command ==>                                         Scroll ==> CSR
002500 //OUTFILE DD DSN=GAMA03.TEST.OUTPUT.DATA,
002600 //          DISP=(MOD,DELETE,DELETE),
002700 //          UNIT=SYSDA,
002800 //          SPACE=(TRK,(1,1),RLSE)
002900 //*****
003000 //*  RUN MAIN PROGRAM
003100 //*****
003200 //STEP03 EXEC PGM=&PROG.
003300 //STEPLIB DD DSN=GAMA03.LOADLIB,DISP=SHR
003400 //SYSOUT DD SYSOUT=*
003500 //EMPIN DD DSN=GAMA03.TEST.INPUT.DATA,DISP=SHR
003600 //EMPOUT DD DSN=GAMA03.TEST.OUTPUT.DATA,
003700 //          DISP=(NEW,CATLG,DELETE),
003800 //          UNIT=3390,VOL=SER=DEVHDI,
003900 //          SPACE=(TRK,(1,1),RLSE),
004000 //          DCB=(DSORG=PS,RECFM=FB,LRECL=80,BLKSIZE=800)
004100 //SYSIN DD *
004200 202402
004300 /*
***** Bottom of Data *****
F1=Help F2=Split F3=Exit F5=Rfind F6=Rchange F7=Up
F8=Down F9=Swap F10=Left F11=Right F12=Cancel
*JCL      OUTPUT      -SUBPROG MAINPRG      SPOOL
```

7. Verification in the SPOOL:

```
File Edit View Tools Help
Clear Erase PA1 PA2 PA3 EraseF
Display Filter View Print Options Search Help
-----
SDSF OUTPUT DISPLAY GAMA03R JOB00802 DSID 106 LINE 0 COLUMNS 02- 81
COMMAND INPUT ==> ██████████ SCROLL ==> CSR
***** TOP OF DATA *****
PROGRAM MAINPRG STARTED
USING DATE = 202402
FILES OPENED SUCCESSFULLY
READING RECORD FOR EMPID = emp1
CALLING SUBPROGRAM CALCSUB...
SUBPROGRAM CALCSUB STARTED FOR MONTH = 02
CALCSUB COMPLETED FOR MONTH = 02
-----
RETURNED FROM SUBPROGRAM.
OUTPUT RECORD WRITTEN
READING RECORD FOR EMPID = emp2
CALLING SUBPROGRAM CALCSUB...
SUBPROGRAM CALCSUB STARTED FOR MONTH = 02
CALCSUB COMPLETED FOR MONTH = 02
-----
RETURNED FROM SUBPROGRAM.
OUTPUT RECORD WRITTEN
READING RECORD FOR EMPID = emp3
CALLING SUBPROGRAM CALCSUB...
SUBPROGRAM CALCSUB STARTED FOR MONTH = 02
WARNING: INVALID WORKED DAYS 031
SETTING LEAVES = 000
CALCSUB COMPLETED FOR MONTH = 02
-----
F1=HELP F2=SPLIT F3=END F4=RETURN F5=IFIND F6=BOOK
F7=UP F8=DOWN F9=SWAP F10=LEFT F11=RIGHT F12=RETRIEVE
JCL -OUTPUT SUBPROG MAINPRG *SPOOL

Online 4,21
```

```
File Edit View Tools Help
Clear Erase PA1 PA2 PA3 EraseF
Display Filter View Print Options Search Help
-----
SDSF OUTPUT DISPLAY GAMA03R JOB00802 DSID 106 LINE 25 COLUMNS 02- 81
COMMAND INPUT ==> ██████████ SCROLL ==> PAGE
RETURNED FROM SUBPROGRAM.
OUTPUT RECORD WRITTEN
READING RECORD FOR EMPID = emp4
CALLING SUBPROGRAM CALCSUB...
SUBPROGRAM CALCSUB STARTED FOR MONTH = 02
CALCSUB COMPLETED FOR MONTH = 02
-----
RETURNED FROM SUBPROGRAM.
OUTPUT RECORD WRITTEN
READING RECORD FOR EMPID = emp5
CALLING SUBPROGRAM CALCSUB...
SUBPROGRAM CALCSUB STARTED FOR MONTH = 02
CALCSUB COMPLETED FOR MONTH = 02
-----
RETURNED FROM SUBPROGRAM.
OUTPUT RECORD WRITTEN
READING RECORD FOR EMPID = emp6
CALLING SUBPROGRAM CALCSUB...
SUBPROGRAM CALCSUB STARTED FOR MONTH = 02
CALCSUB COMPLETED FOR MONTH = 02
-----
RETURNED FROM SUBPROGRAM.
OUTPUT RECORD WRITTEN
READING RECORD FOR EMPID = emp7
CALLING SUBPROGRAM CALCSUB...
F1=HELP F2=SPLIT F3=END F4=RETURN F5=IFIND F6=BOOK
F7=UP F8=DOWN F9=SWAP F10=LEFT F11=RIGHT F12=RETRIEVE
JCL -OUTPUT SUBPROG MAINPRG *SPOOL

Online 4,21
```



```
File Edit View Tools Help
Clear Erase PA1 PA2 PA3 EraseF

Display Filter View Print Options Search Help

SDSF OUTPUT DISPLAY GAMA03R JOB00802 DSID 106 LINE 50 COLUMNS 02- 81
COMMAND INPUT ==> SCROLL ==> PAGE

SUBPROGRAM CALCSUB STARTED FOR MONTH = 02
CALCSUB COMPLETED FOR MONTH = 02
-----
RETURNED FROM SUBPROGRAM.
OUTPUT RECORD WRITTEN
READING RECORD FOR EMPID = emp8
CALLING SUBPROGRAM CALCSUB...
SUBPROGRAM CALCSUB STARTED FOR MONTH = 02
WARNING: INVALID WORKED DAYS 030
SETTING LEAVES = 000
CALCSUB COMPLETED FOR MONTH = 02
-----
RETURNED FROM SUBPROGRAM.
OUTPUT RECORD WRITTEN
READING RECORD FOR EMPID = emp9
CALLING SUBPROGRAM CALCSUB...
SUBPROGRAM CALCSUB STARTED FOR MONTH = 02
CALCSUB COMPLETED FOR MONTH = 02
-----
RETURNED FROM SUBPROGRAM.
OUTPUT RECORD WRITTEN
NO MORE RECORDS TO READ
PROGRAM COMPLETED SUCCESSFULLY
***** BOTTOM OF DATA *****

F1=HELP F2=SPLIT F3=END F4=RETURN F5=IFIND F6=BOOK
F7=UP F8=DOWN F9=SWAP F10=LEFT F11=RIGHT F12=RETRIEVE
JCL -OUTPUT SUBPROG MAINPRG *SPOOL

Online 4,21
```

8. Check if OUTPUT file is generated or not and peek in to the output:

```
TSO
File Edit View Tools Help
Clear Erase PA1 PA2 PA3 EraseF

Menu Options View Utilities Compilers Help

DSLIS - Data Sets Matching GAMA03 1 - CHARS 'OUTPUT'
Command ==> SCROLL ==> PAGE

Command - Enter "/" to select action Message Volume

e GAMA03.TEST.OUTPUT.DATA DEVHD1
GAMA03.TEST.PDS.ASSMNT DEVHD1
GAMA03.TEST.PDS.DAY1 DEVHD1
GAMA03.TEST.PDS2.DAY1 STRVL2
GAMA03.TEST.PSFILE1 DEVHD1
GAMA03.TEST.PSFILE2 STRVL2
GAMA03.TEST.PSFILE3 DEVHD1
GAMA03.TEST.SORTIN DEVHD1
GAMA03.TEST.SORTOUT DEVHD1
***** End of Data Set list *****

F1=Help F2=Split F3=Exit F5=Rfind F7=Up F8=Down F9=Swap
F10=Left F11=Right F12=Cancel
COBOL -JCL *DSLIS ISFPCU41 FILEMGR

Online 8,6
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9. Final output: (FEB 2024) Which leap year.

```
File Edit View Tools Help
Clear Erase PA1 PA2 PA3 EraseF
File Edit Edit Settings Menu Utilities Compilers Test Help
-----
EDIT          GAMA03.TEST.OUTPUT.DATA          Columns 00001 00072
Command ==> [ ]                               Scroll ==> CSR
***** Top of Data *****
==MSG> -CAUTION- Data contains invalid (non-display) characters. Use command
==MSG> ==> FIND P'.' to position cursor to these
==MSG> -Warning- The UNDO command is not available until you change
==MSG> your edit profile using the command RECOVERY ON.
000001 emp1 025 004
000002 emp2 010 019
000003 emp3 031 000
000004 emp4 026 003
000005 emp5 028 001
000006 emp6 017 012
000007 emp7 023 006
000008 emp8 030 000
000009 emp9 021 008
***** Bottom of Data *****

F1=Help      F2=Split      F3=Exit      F5=Rfind      F6=Rchange    F7=Up
F8=Down      F9=Swap       F10=Left     F11=Right     F12=Cancel
JCL          *OUTPUT      -SUBPROG MAINPRG  SPOOL

Online | | | 415 |
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➔ (Feb 2025) which is not a leap year.

```
File Edit View Tools Help
Clear Erase PA1 PA2 PA3 EraseF
File Edit Edit Settings Menu Utilities Compilers Test Help
-----
VIEW          GAMA03.TEST.OUTPUT.DATA          Columns 00001 00072
Command ==> [ ]                               Scroll ==> CSR
***** Top of Data *****
==MSG> -CAUTION- Data contains invalid (non-display) characters. Use command
==MSG> ==> FIND P'.' to position cursor to these
==MSG> -Warning- The UNDO command is not available until you change
==MSG> your edit profile using the command RECOVERY ON.
000001 emp1 025 003
000002 emp2 010 018
000003 emp3 031 000
000004 emp4 026 002
000005 emp5 028 000
000006 emp6 017 011
000007 emp7 023 005
000008 emp8 030 000
000009 emp9 021 007
***** Bottom of Data *****

F1=Help      F2=Split      F3=Exit      F5=Rfind      F6=Rchange    F7=Up
F8=Down      F9=Swap       F10=Left     F11=Right     F12=Cancel
JCL          *OUTPUT      -SUBPROG MAINPRG  SPOOL

Online | | | 415 |
```



Jan 2025 which have 31 days in the month.

```
File Edit View Tools Help
Clear Erase PA1 PA2 PA3 EraseF
File Edit Edit Settings Menu Utilities Compilers Test Help
VIEW GAMA03.TEST.OUTPUT.DATA Columns 00001 00072
Command ==> Scroll ==> CSR
***** Top of Data *****
==MSG> -CAUTION- Data contains invalid (non-display) characters. Use command
==MSG> ==> FIND P'.' to position cursor to these
==MSG> -Warning- The UNDO command is not available until you change
==MSG> your edit profile using the command RECOVERY ON.
000001 emp1 025 006
000002 emp2 010 021
000003 emp3 031 000
000004 emp4 026 005
000005 emp5 028 003
000006 emp6 017 014
000007 emp7 023 008
000008 emp8 030 001
000009 emp9 021 010
***** Bottom of Data *****

F1=Help F2=Split F3=Exit F5=Rfind F6=Rchange F7=Up
F8=Down F9=Swap F10=Left F11=Right F12=Cancel
JCL *OUTPUT -SUBPROG MAINPRG SPOOL
Online 415
```



April 2026 which have 30 days in the month.

```
File Edit View Tools Help
Clear Erase PA1 PA2 PA3 EraseF
File Edit Edit Settings Menu Utilities Compilers Test Help
VIEW GAMA03.TEST.OUTPUT.DATA Columns 00001 00072
Command ==> Scroll ==> CSR
***** Top of Data *****
==MSG> -CAUTION- Data contains invalid (non-display) characters. Use command
==MSG> ==> FIND P'.' to position cursor to these
==MSG> -Warning- The UNDO command is not available until you change
==MSG> your edit profile using the command RECOVERY ON.
000001 emp1 025 005
000002 emp2 010 020
000003 emp3 031 000
000004 emp4 026 004
000005 emp5 028 002
000006 emp6 017 013
000007 emp7 023 007
000008 emp8 030 000
000009 emp9 021 009
***** Bottom of Data *****

F1=Help F2=Split F3=Exit F5=Rfind F6=Rchange F7=Up
F8=Down F9=Swap F10=Left F11=Right F12=Cancel
JCL *OUTPUT SUBPROG -MAINPRG SPOOL
Online 415
```