

**KRITHIKA M – 211722243079**

**BUSINESS SCENARIO 10**

**MONTHLY SERVICE CHARGE PROCESSOR**

**Define VSAM KSDS:**

```
//DEFVSAM JOB (ACCT),'DEF VSAM',CLASS=A,MSGCLASS=A,NOTIFY=&SYSUID  
//STEP1 EXEC PGM=IDCAMS  
//SYSPRINT DD SYSOUT=*  
//SYSIN DD *  
    DELETE A016.MASTER.FILE  
    DEFINE CLUSTER (NAME(A016.MASTER.FILE)) -  
        INDEXED -  
        KEYS(10 0) -  
        RECSZ(80 80) -  
        TRACKS(5 5) -  
        VOLUMES(USR002)) -  
        DATA(NAME(A016.MASTER.FILE.DATA)) -  
        INDEX(NAME(A016.MASTER.FILE.INDEX))  
/*
```

**Create the Master File (Account Balance File):**

IDENTIFICATION DIVISION.

PROGRAM-ID. LOADMAST.

ENVIRONMENT DIVISION.

INPUT-OUTPUT SECTION.

FILE-CONTROL.

SELECT MASTER-FILE ASSIGN TO MASTER

ORGANIZATION IS INDEXED

ACCESS MODE IS SEQUENTIAL

RECORD KEY IS ACCT-NO

FILE STATUS IS WS-MASTER-STATUS.

DATA DIVISION.

FILE SECTION.

FD MASTER-FILE.

01 MASTER-REC.

  05 ACCT-NO     PIC X(10).

  05 ACCT-TYPE   PIC X(1).

  05 BALANCE    PIC 9(7)V99.

  05 FILLER     PIC X(60).

WORKING-STORAGE SECTION.  
01 WS-MASTER-STATUS PIC XX.

PROCEDURE DIVISION.  
MAIN-LOGIC.

OPEN OUTPUT MASTER-FILE

\* Sample accounts - add more as needed

MOVE '1234567890' TO ACCT-NO

MOVE 'S' TO ACCT-TYPE

MOVE 5000.00 TO BALANCE

WRITE MASTER-REC

MOVE '2345678901' TO ACCT-NO

MOVE 'C' TO ACCT-TYPE

MOVE 15000.00 TO BALANCE

WRITE MASTER-REC

MOVE '3456789012' TO ACCT-NO

MOVE 'S' TO ACCT-TYPE

MOVE 100.00 TO BALANCE

WRITE MASTER-REC

CLOSE MASTER-FILE

STOP RUN.

### Create Transaction Input File

```
//CREATETR JOB (ACCT),'CREATE TRANS',CLASS=A,MSGCLASS=A,NOTIFY=&SYSUID
/*
//STEP0 EXEC PGM=IDCAMS
//SYSPRINT DD SYSOUT=*
//SYSIN DD *
DELETE Z82675.TRANS.FILE
SET MAXCC = 0
/*
/*
//STEP1 EXEC PGM=IEBGENER
//SYSPRINT DD SYSOUT=*
//SYSUT1 DD *
1234567890025
2345678901010
```

3456789012008

1111111111003

```
/*
//SYSUT2 DD DSN=Z82675.TRANS.FILE,
//      DISP=(NEW,CATLG,DELETE),
//      SPACE=(TRK,(1,1)),
//      DCB=(RECFM=FB,LRECL=13,BLKSIZE=0)
//SYSIN DD *
      GENERATE MAXFLDS=1
      RECORD FIELD=(13,1,,1)
/*
```

### **Main Service Charge Processor Program:**

IDENTIFICATION DIVISION.

PROGRAM-ID. SVCCHARG.

ENVIRONMENT DIVISION.

INPUT-OUTPUT SECTION.

FILE-CONTROL.

SELECT TRANS-FILE ASSIGN TO TRANSIN

FILE STATUS IS WS-TR-STAT.

SELECT MASTER-FILE ASSIGN TO MASTER

ORGANIZATION IS INDEXED

ACCESS MODE IS RANDOM

RECORD KEY IS ACCT-NO

FILE STATUS IS WS-MA-STAT.

DATA DIVISION.

FILE SECTION.

FD TRANS-FILE.

01 TRANS-REC.

05 TR-ACCT-NO PIC X(10).

05 TR-COUNT PIC 9(3).

FD MASTER-FILE.

01 MASTER-REC.

05 ACCT-NO PIC X(10).

05 ACCT-TYPE PIC X(1).

05 ACCT-BAL PIC 9(7)V99.

05 FILLER PIC X(60).

WORKING-STORAGE SECTION.

01 WS-STATS.

05 WS-TR-STAT PIC XX.

05 WS-MA-STAT PIC XX.

```
05 WS-PROC-CNT  PIC 9(4) VALUE 0.  
05 WS-DEDUCT-CNT  PIC 9(4) VALUE 0.  
05 WS-FAIL-CNT  PIC 9(4) VALUE 0.  
05 WS-TOTAL-AMT  PIC 9(7)V99 VALUE 0.  
  
01 WS-CALCS.  
    05 WS-CHARGE  PIC 9(5)V99.  
  
PROCEDURE DIVISION.  
  
000-MAIN.  
    OPEN INPUT TRANS-FILE.  
    OPEN I-O  MASTER-FILE.  
  
    PERFORM 100-READ-TRANS.  
  
    PERFORM UNTIL WS-TR-STAT = '10'  
        ADD 1 TO WS-PROC-CNT  
        MOVE TR-ACCT-NO TO ACCT-NO  
        READ MASTER-FILE  
        IF WS-MA-STAT = '00'  
            PERFORM 200-PROCESS-LOGIC  
        ELSE  
            DISPLAY 'RECORD NOT FOUND: ' TR-ACCT-NO  
            ADD 1 TO WS-FAIL-CNT  
        END-IF  
        PERFORM 100-READ-TRANS  
    END-PERFORM.  
  
    PERFORM 300-PRINT-SUMMARY.  
    CLOSE TRANS-FILE MASTER-FILE.  
    STOP RUN.  
  
100-READ-TRANS.  
    READ TRANS-FILE.  
  
200-PROCESS-LOGIC.  
    IF ACCT-TYPE = 'S'  
        IF TR-COUNT > 5  
            COMPUTE WS-CHARGE = (TR-COUNT - 5) * 15  
        ELSE  
            MOVE 0 TO WS-CHARGE  
        END-IF  
    ELSE
```

```
MOVE 200 TO WS-CHARGE
```

```
END-IF.
```

```
IF ACCT-BAL >= WS-CHARGE  
  SUBTRACT WS-CHARGE FROM ACCT-BAL  
  REWRITE MASTER-REC  
  ADD 1 TO WS-DEDUCT-CNT  
  ADD WS-CHARGE TO WS-TOTAL-AMT  
ELSE  
  DISPLAY 'INSUFFICIENT BALANCE: ' ACCT-NO  
  ADD 1 TO WS-FAIL-CNT  
END-IF.
```

```
300-PRINT-SUMMARY.
```

```
DISPLAY '----- SERVICE CHARGE SUMMARY -----'.  
DISPLAY 'Accounts Processed : ' WS-PROC-CNT.  
DISPLAY 'Charges Deducted : ' WS-DEDUCT-CNT.  
DISPLAY 'Failed Deductions : ' WS-FAIL-CNT.  
DISPLAY 'Total Charges : ' WS-TOTAL-AMT.  
DISPLAY 'Batch Completed Successfully'.
```

### **JCL to Load Master File:**

```
//LOADJCL JOB (ACCT),'LOAD KSDS',CLASS=A,MSGCLASS=A,NOTIFY=&SYSUID  
/*-----*  
/* STEP 1: LOAD SAMPLE DATA INTO THE KSDS *  
/*-----*  
//STEP1 EXEC PGM=IDCAMS  
//SYSPRINT DD SYSOUT=*  
//SYSIN DD *  
REPRO INFILE(DATAIN) OUTDATASET(Z82675.MASTER.FILE)  
/*  
//DATAIN DD *  
1234567890S000500000  
2345678901C001500000  
3456789012S000010000  
/*
```

### **JCL to Compile and Execute Main Program:**

```
//RUNJCL JOB (ACCT),'FIX0C4',CLASS=A,MSGCLASS=A,NOTIFY=&SYSUID  
/*-----*
```

```

/* STEP 1: COMPILE - USING 0M REGION TO PREVENT 0C4
-----*
//COMPILE EXEC PGM=IGYCRCTL,REGION=0M,PARM='APOST,MAP,XREF'
//STEPLIB DD DSN=IGY640.SIGYCOMP,DISP=SHR
//      DD DSN=CEE.SCEERUN,DISP=SHR
//      DD DSN=CEE.SCEERUN2,DISP=SHR
//SYSIN  DD DSN=Z82675.COBOL.SRC(SVCCHARG),DISP=SHR
//SYSLIN  DD DSN=&&OBJMOD,DISP=(NEW,PASS),UNIT=SYSDA,
//          SPACE=(TRK,(10,10))
//SYSPRINT DD SYSOUT=*
/* LARGER WORK FILES TO PREVENT COMPILER CRASH
//SYSUT1  DD UNIT=SYSDA,SPACE=(CYL,(5,5))
//SYSUT2  DD UNIT=SYSDA,SPACE=(CYL,(5,5))
//SYSUT3  DD UNIT=SYSDA,SPACE=(CYL,(5,5))
//SYSUT4  DD UNIT=SYSDA,SPACE=(CYL,(5,5))
//SYSUT5  DD UNIT=SYSDA,SPACE=(CYL,(5,5))
//SYSUT6  DD UNIT=SYSDA,SPACE=(CYL,(5,5))
//SYSUT7  DD UNIT=SYSDA,SPACE=(CYL,(5,5))
-----*
/* STEP 2: LINK-EDIT (ONLY RUNS IF COMPILE IS OK)
-----*
//LKED  EXEC PGM=IEWL,REGION=0M,PARM='LIST,XREF,LET,MAP',
//      COND=(4,LT,COMPILE)
//SYSLIN  DD DSN=&&OBJMOD,DISP=(OLD,DELETE)
//SYSLMOD DD DSN=Z82675.BATCH.LOADLIB(SVCCHARG),DISP=SHR
//SYSLIB  DD DSN=CEE.SCEELKED,DISP=SHR
//SYSPRINT DD SYSOUT=*
//SYSUT1  DD UNIT=SYSDA,SPACE=(TRK,(10,10))
-----*
/* STEP 3: RUN THE PROGRAM
-----*
//RUNSTEP EXEC PGM=SVCCHARG
//STEPLIB DD DSN=Z82675.BATCH.LOADLIB,DISP=SHR
//      DD DSN=CEE.SCEERUN,DISP=SHR
//TRANSIN DD DSN=Z82675.INPUT,DISP=SHR
//MASTER  DD DSN=Z82675.INPUT,DISP=SHR
//SYSOUT  DD SYSOUT=*

```

## OUTPUT:

```
mainframe
File Edit View Tools Help
Clear Erase PA1 PA2 PA3 EraseF
0 3 . 1 5 . 2 6 J O B 0 4 8 7 9 $ H A S P I 6 5 A 0 1 6 C O M P E N D E D A T N 1 M A X C C = 0 C N ( I N T E R N A L )
* * *
```

```
mainframe
File Edit View Tools Help
Display Filter View Print Options Help
----- SDSF OUTPUT DISPLAY A 0 1 6 C O M P J O B 0 4 9 8 3 D S I D 1 0 3 L I N E 0 COLUMNS 0 2 - 8 1
COMMAND INPUT ==> SCROLL ==> PAGE
***** TOP OF DATA *****
RECORD NOT FOUND: 1 1 1 1 1 1 1 1 1
----- SERVICE CHARGE SUMMARY -----
ACCOUNTS PROCESSED : 0 0 0 4
CHARGES DEDUCTED : 0 0 0 3
FAILED DEDUCTIONS : 0 0 0 1
TOTAL CHARGES : 0 0 0 0 5 4 5 0 0
BATCH COMPLETED SUCCESSFULLY
***** BOTTOM OF DATA *****

- D S L I S T * I S F P C U 4
```