

**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 A016.TRANS.FILE
SET MAXCC = 0
/*
/*
//STEP1 EXEC PGM=IEBGENER
//SYSPRINT DD SYSOUT=*
//SYSUT1  DD *
1234567890025
2345678901010
```

3456789012008

1111111111003

```
/*
//SYSUT2 DD DSN=A016.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 INFIL(DATAIN) OUTDATASET(A016.MASTER.FILE)
/*
//DATAIN  DD *
1234567890S000500000
2345678901C001500000
3456789012S000010000
/*

```

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

```

//A016COMP JOB 'ACCT','COMPILE',CLASS=A,MSGCLASS=X,
// REGION=5M,NOTIFY=&SYSUID
/*

```

```
//COBCOMP EXEC PGM=IGYCRCTL  
//SYSIN DD DSN=A016.KRITHI-M.COBL(SVCCHARG),DISP=SHR  
//SYSLIN DD DSN=&&LOADSET,UNIT=SYSDA,  
//           DISP=(MOD,PASS),SPACE=(TRK,(3,3)),  
//           DCB=(BLKSIZE=3200)  
//SYSPRINT DD SYSOUT=*  
//SYSUT1 DD UNIT=SYSDA,SPACE=(CYL,(1,1))  
//SYSUT2 DD UNIT=SYSDA,SPACE=(CYL,(1,1))  
//SYSUT3 DD UNIT=SYSDA,SPACE=(CYL,(1,1))  
//SYSUT4 DD UNIT=SYSDA,SPACE=(CYL,(1,1))  
//SYSUT5 DD UNIT=SYSDA,SPACE=(CYL,(1,1))  
//SYSUT6 DD UNIT=SYSDA,SPACE=(CYL,(1,1))  
//SYSUT7 DD UNIT=SYSDA,SPACE=(CYL,(1,1))  
/*  
//LINKEDIT EXEC PGM=IEWL,COND=(8,LT)  
//SYSLIB DD DSN=CEE.SCEELKED,DISP=SHR  
//SYSLIN DD DSN=&&LOADSET,DISP=(OLD,DELETE)  
//SYSLMOD DD DSN=A016.BATCH.LOADLIB(SVCCHARG),DISP=SHR  
//SYSPRINT DD SYSOUT=*  
/*  
//RUNSTEP EXEC PGM=SVCCHARG,COND=(8,LT)  
//STEPLIB DD DSN=A016.BATCH.LOADLIB,DISP=SHR  
//TRANSIN DD DSN=A016.TRANS.FILE,DISP=SHR  
//MASTER DD DSN=A016.MASTER.FILE,DISP=SHR  
//SYSOUT DD SYSOUT=*
```

## OUTPUT:

mainframe

File Edit View Tools Help

Clear Erase PA1 PA2 PA3 EraseF

04.47.12 JOB05001 \$ HASPI65 A016COMP ENDED AT N1 MAXCC=0 CN(INTERNAL)

\*\*\*

Online | 2,6

This screenshot shows a mainframe terminal window titled "mainframe". The menu bar includes "File", "Edit", "View", "Tools", and "Help". Below the menu is a toolbar with icons for "Clear", "Erase", "PA1", "PA2", "PA3", and "EraseF". The terminal window displays the message "04.47.12 JOB05001 \$ HASPI65 A016COMP ENDED AT N1 MAXCC=0 CN(INTERNAL)" in red text. At the bottom, there is status information: "Online" and "2,6".

mainframe

File Edit View Tools Help

Clear Erase PA1 PA2 PA3 EraseF

display filter View print options Help

SDSF OUTPUT DISPLAY A016COMP JOB05001 DSID 103 LINE 0 COLUMNS 02 - 81  
COMMAND INPUT ==> SCROLL ===> PAGE

\*\*\*\*\* TOP OF DATA \*\*\*\*\*

RECORD NOT FOUND: 1111111111

----- SERVICE CHARGE SUMMARY -----

ACCOUNTS PROCESSED : 0004

CHARGES DEDUCTED : 0003

FAILED DEDUCTIONS : 0001

TOTAL CHARGES : 000054500

BATCH COMPLETED SUCCESSFULLY

\*\*\*\*\* BOTTOM OF DATA \*\*\*\*\*

-DSLIS T \* ISFP C U 4

Online | 421

This screenshot shows a mainframe terminal window titled "mainframe". The menu bar includes "File", "Edit", "View", "Tools", and "Help". Below the menu is a toolbar with icons for "Clear", "Erase", "PA1", "PA2", "PA3", and "EraseF". The terminal window displays a service charge summary report. The report starts with "RECORD NOT FOUND: 1111111111" and "----- SERVICE CHARGE SUMMARY -----". It then lists the number of accounts processed (0004), total charges (000054500), and failed deductions (0001). The report concludes with "BATCH COMPLETED SUCCESSFULLY". At the bottom, it shows "-DSLIS T \* ISFP C U 4". The status bar at the bottom indicates "Online" and "421".