**ICT01 – FLIGHT MANAGEMENT**

**Description**

**Instruction:**

1.if you are using TLAB\*\*, Sample compile and run JCL is available in "TLABADM.LAB.SYS.COMPRUN". Please go in view mode and copy the members to your deliverable dataset.

2. if you are using TLAB\*\*,the IP address  is 10.142.149.210 and the Port is 623 to connect to Mainframe Terminal

**Please do not EVALUATE and just SUBMIT the code for Evaluation  - CC/MOCK/ICT assessments.**

**Objective:**

To create a COBOL-VSAM application to FLIGHT MANAGEMENT.

**STEP1:** **ISPF**

1)      Allocate the below PDS with the following parameters given below.

-         **USERID.MYLIB.COBOL.ICT01** - COBOL and JCL Source Program

-         **USERID.MYLIB.LOADLIB** - COBOL Load Module

2)      Allocate a PS dataset with a record length of 80 as per the naming conventions given below.

-         INPUT  PS1- **USERID.MYDATA.ICT01.PS1**

-         RECORD LENGTH (80,80)

-         **Enter 1st row** in PS file. 1st row contains header details for reference.

-         **Enter 2nd row** in PS file. 2nd row contains layout details for reference

-         All alphanumeric data to be entered in **CAPITAL** letters.

A table with numbers and letters

AI-generated content may be incorrect.

1)      Allocate a PS dataset with a record length of 80 as per the naming conventions given below.

-         INPUT  PS2- **USERID.MYDATA.ICT01.PS2**

-         RECORD LENGTH (80,80)

-         **Do not enter** 1st row in PS file. 1st row contains header details for reference.

-         **Do not enter** 2nd row in PS file. 2nd row contains layout details for reference

-         All alphanumeric data to be entered in**CAPITAL** letters.

A table with numbers and letters

AI-generated content may be incorrect.

**STEP2:** **JCL**

1)      Create a member **ICT01J01** in **USERID.MYLIB.COBOL.ICT01** and write a JCL to perform the below task.

-         **STEP01 :** Pre delete **dataset USERID.MYDATA.ICT01.PS3**

-         **STEP02:** Allocate a PS dataset with a record length of 80 as per the naming conventions given below.

  DATASET NAME - **USERID.MYDATA.ICT01.PS3**

  RECORD LENGTH (80,80)

-         **STEP03 :** Use SORT utility to perform the below operation on PS1 dataset and store the output in PS3 dataset

  Remove the header record

  Remove the layout details

  Sort records in ascending order based on Flight\_No

2)      Create a member**ICT01J02** in **USERID.MYLIB.COBOL.ICT01** and write a JCL to perform the below task.

-         **STEP01**: Pre delete **dataset USERID.MYDATA.ICT01.KSDS**

-         **STEP02:** Allocate a KSDS dataset with the following naming conventions.

  INPUT KSDS - **USERID.MYDATA.ICT01.KSDS**

  RECORD LENGTH (80,80)

**KEY IS FLIGHT\_N0**

-         **STEP03:**  Load the PS3 dataset into the KSDS .

**STEP 3: COBOL .**

3)      Create a Member name**ICT01CBM** inside the PDS **USERID.MYLIB.COBOL.ICT01** for the Main Program.

                                i.            In the Main Program, Write a COBOL program to perform the following,

Input file 01 to be used in the program             **:**USERID.MYDATA.ICT01.PS2

**DD name to be used                                             : INFLIPS1**

Input file 02 to be used in the program             **:**USERID.MYDATA.ICT01.KSDS

**DD name to be used                                             : INFLIPS2**

Output file to be used in the program                **:**USERID.MYDATA.ICT01.PS4

**DD name to be used                                             : OUTFLIPS**

*Note: Please use only the****above mentioned DD names****.****Do not use COPYBOOKs****for declaring input or output file layout in COBOL program.*

                              ii.             Read all the records from **INPUT PS2**and validate input data for each field in the input file.

                                                          i.      Check whether the BOOKING\_ID contains 5 digits

                                                           ii.      Check whether the FLIGHT\_NUMBER is NUMERIC

                                                          iii.      Check whether the NO\_OF\_TICKETS contains  numbers less than 50

                                                          iv.      Check whether the CLASS contains either FC or EC.

                                                          v.      Skip the input record which fails in the validation and process the next record.

iii.Perform the below task for the records which has passed through the validation

 i.      Read the flight  (DEPARTURE, ARRIVAL, FARE, CLASS,SEATS\_AVAILABLE) from the KSDS by using FLIGHT\_NO as key

ii.      Check whether CLASS in PS2 is equal to CLASS in KSDS ,

iii.      IF PS2 CLASS = KSDS CLASS, then

Calculate **TOTAL\_FARE = NO\_OF\_TICKETS \* FARE**

iv.      IF PS2 CLASS != KSDS CLASS, then

Calculate **TOTAL\_FARE = 0.0**

iv.   **Add 100** to the **TOTAL\_FARE** , if the BOOKING\_TYPE is **ONLINE**

v.   Load the FLIGHT\_NO , TOTAL\_FARE, NO\_OF\_TICKETS, SEATS\_AVAILABLE  , DEPARTURE, ARRIVAL , CLASS  into 1 dimensional COBOL table.

 vi.            Read the table to calculate the STATUS

If  **NO\_OF\_TICKETS  <= SEATS\_AVAILABLE**

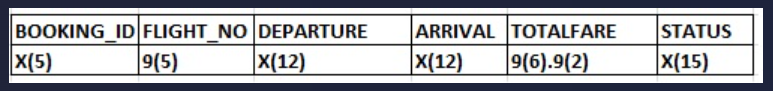
THEN **STATUS = CONFIRMED**

If  **NO\_OF\_TICKETS > SEATS\_AVAILABLE**

THEN **STATUS = NOT CONFIRMED**

vii. Write the records in the output file **USERID.MYDATA.ICT01.PS4**  as per the output layout.

**OUTPUT LAYOUT:**



*NOTE:*One space filler is to be inserted between each field.

**INSTRUCTIONS:**

* Follow  the proper coding standards
* Provide proper error handling routines.

**EXPECTED DELIVERABLES**

* PS1 - INPUT DATASET
* PS2 - INPUT DATASET
* PS3 & PS4 - OUTPUT DATASET
* JCL PROGRAM
* COBOL PROGRAM
* RUN JCL

**Evaluation Procedure:**

1)      Use your run JCL to compile the Program and test your program with the necessary inputs and make sure you get the return code MAXCC 00 before submitting it for Evaluation.

2)      Download your dataset (USERID.MYLIB.ICT01 (ICT01CBM), (ICTJCL01), (ICTJCL02), USERID.MYDATA.ICT01.PS1 and USERID.MYDATA.ICT01.PS2 to your system and name the file ICT01COBM.txt, ICT01JCL01.txt, ICT01JCL02.txt, ICT01INP1.txt and ICT01INP2.txt

3)      Download your  output dataset USERID.MYDATA.ICT01.PS3  and USERID.MYDATA.ICT01.PS4 to your system and name the file ICT01OUT1.txt and ICT01OUT2.txt

4)      Download your run JCL with the necessary inputs as per the QB Requirement and name it RUNJCL.txt

5)      Drag the file into the code Editor.

6)      Then Press the Evaluate button for Evaluation.