L3-ASSIGNMENT – **COBOL-DB2**

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TOUR – 3A

Naming Convention:

PDS name: **HLQ.L3.TOUR.PDS**

DBRM name: **HLQ.L3.TOUR.DBRM**

LOADLIB name: **HLQ.L3.TOUR.LOADLIB**

HLQ → Mainframe Userid.(OZAGS1)

Member names:

    JCL(VSAM)   : JA01YYZZ

    COMPILE JOB   : COBCOMP

    RUNJOB   :JA03YYZZZ

    COBOL MAIN PROGRAM MEM NAME: CA01YYZZ

    SPUFI   : SBXXYYZZ

    DCLGEN   :DCXXYYZZ

     XX→ SEQUENCE NUMBER eg: 01,02,etc

    YY→ QUESTION NUMBER . 3A as mentioned in line 4.

    ZZ → The last 2 chars of your userid. Eg:"S1" if user id is OZAGS1.

- o   DATABASE: as it is.
- o   TABLESPACE: as it is.
- o   PLAN: as it is.

    The Tour Details System maintains the Tour related records in the database TOUR_DETAILS for the ease of access and maintenance. The system reads the list of guide, language and other tour details from the tour details data base and updates and maintains the required details accordingly. To make this optimized, perform these operations and achieve its requirements, develop the below modules:

Note: Define the tables as per the naming convention instructed in the requirement. Do not prefix any values during the table creation.

<u>DB2:</u>

1. Using SPUFI, create a table TOUR_DETAILS with the below columns, to store the tour details. Naming convention for SPUFI query member is **SB01YYZZ.** Member **should not contain** any **commented queries**.

Column Name	Data type & Length	Constraints
TOUR_PLACE	Char – 15	Primary key Not Null
TOUR_GUIDE	Char – 10	Null
LANGUAGE	Char – 3	Not Null Accepted Values TAM - Tamil ENG - English
TOUR_DATE	DATE	Not Null
GROUP_SIZE	Integer	Not Null
PRICE_PER_HEAD	Integer	Not Null

2. Using SPUFI, create a table SEASON_DISCOUNT with the below columns, to store the Tour season details. Naming convention for SPUFI query member is **SB02yyyZZ.** Member **should not contain** any **commented queries**.

Column Name	Data type & Length	Constraints
TOUR_PLACE	Char – 15	Primary key Not Null
FINAL_PRICE	Integer	Not Null
GUIDE	Char – 10	Null
DISCOUNT	Integer	Not Null
DATE	DATE	Not Null
GROUP_DISCOUNT	Integer	Not Null

3. Using SPUFI, insert the below sample values into the TOUR_DETAILS table. Naming convention for SPUFI query member is **SB02yyZZ. All Char field data to be inserted in CAPITAL letters & NULL** denotes null value to be inserted**.** Member **should not contain** any **commented queries**.

<u>Sample Values:</u>

TOUR_PLACE	TOUR_GUIDE	LANGUAGE	TOUR_DATE	GROUP_SIZE	PRICE_PER_HEAD
PAMBAN BRIDGE	HARI	TAM	2014-09-30	16	2500
MAHABALIPURAM	NULL	TAM	2014-09-01	02	1500
THENI	ARUL	ENG	2014-09-02	10	2000
KALLANAI DAM	MANI	TAM	2014-09-20	05	1800
VELLORE FORT	NULL	ENG	2014-09-01	01	1250
MARINABEACH	ANNY	ENG	2014-09-29	18	1000
MADURAI TEMPLE	PRIYA	TAM	2014-09-18	25	2680
KOVALAM	SRUTHI	ENG	2014-09-21	22	2500
METTUR DAM	RUPA	TAM	2014-09-21	21	2200

COBOL:

Input: **Data fetched from table** TOUR_DETAILS

Output File: **<HLQ>.L2.TOUR.PS, record length is 80**

DD name to be used: **OUTTOUR**

Output File: **<HLQ>.L2.ODEL.PS, record length is 80**

DD name to be used: **OUTODEL**

Output Table: **SEASON_DISCOUNT & TOUR_DETAILS**

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

Write a COBOL program to perform the below actions.

a. Using cursor, select the records - TOUR_PLACE, TOUR_GUIDE,LANGUAGE,TOUR_DATE, GROUP_SIZE and PRICE_PER_HEAD from the TOUR_DETAILS which GROUP_SIZE is greater than 1 & PRICE_PER_HEAD is greater than 1000.

b. For the fetched records, perform the following process

    i.   Using null value handling technique, verify whether the field TOUR_GUIDE holds any null value. If any null values present then do the below

      a. Move **YTD** to TOUR-GUIDE field and write the record into **OUTODEL** in the below format ,

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

TOUR_PLACE X(15)	TOUR-GUIDE X(10)	LANGUAGE X(3)	TOUR_DATE X(10)	GROUP_SIZE 9(2)	PRICE_PER_HEAD 9(5)

      b. Delete the same record from the table TOUR_DETAILS

For records without null values in TOUR_GUIDE field, continue the below processing.

    i.   Calculate DISCOUNT and FINAL_PRICE as follows.

DISCOUNT Calculation:

a)   If GROUP_SIZE = 5 then DISCOUNT calculation will be

DISCOUNT = PRICE_PER_HEAD * 0.01

b)   If GROUP_SIZE > 5 and <= 10 and LANGUAGE = "ENG" then

DISCOUNT = PRICE_PER_HEAD * 0.02

c)   If GROUP_SIZE > 10 and <=20 then

DISCOUNT = PRICE_PER_HEAD * 0.03

d)   If GROUP_SIZE > 20 and <= 30 and LANGUAGE = "ENG" then

DISCOUNT = PRICE_PER_HEAD * 0.018

e)   If GROUP_SIZE > 20 and <= 30 and LANGUAGE = "TAM" then

DISCOUNT = PRICE_PER_HEAD * 0.015

ii. FINAL_PRICE Calculation:

f)   If DISCOUNT >= 10 and < =20

FINAL_PRICE = PRICE_PER_HEAD – (GROUP_SIZE * DISCOUNT) -10

g)   If DISCOUNT > 20 and < =40

FINAL_PRICE = PRICE_PER_HEAD – (GROUP_SIZE * DISCOUNT) -12

h)   If DISCOUNT > 40 and < =50

FINAL_PRICE = PRICE_PER_HEAD – (GROUP_SIZE * DISCOUNT) -13

i)   If DISCOUNT > 50 and < 100

FINAL_PRICE = PRICE_PER_HEAD – (GROUP_SIZE * DISCOUNT) - 9

iii. Group discount calculation will be

GROUP_DISCOUNT = GROUP_SIZE * DISCOUNT

iv. Using the above calculated values namely DISCOUNT, FINAL_PRICE & GROUP_DISCOUNT along with TOUR_PLACE, TOUR_GUIDE, TOUR_DATE fetched from TOUR_DETAILS, insert the values into the table SEASON_DISCOUNT.

v. Write the processed records in to the output file in the below format.

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

TOUR_PLACE X(15)	FINAL_PRICE 9(7)	TOUR_G UIDE X(10)	DISCOUNT 9(9)	DATE X(10)	GROUP_DISCOUNT 9(9)	GROUP_SIZE 9(2)

<u>**JCL:**</u>

Compile and execute the above COBOL program.

<u>**SPUFI:**</u>

Naming convention for SPUFI query member is **SB04yyZZ.** Member **should not contain** any **commented queries**.

Using SPUFI, write a select query to fetch the records with LANGUAGE as ENG and GROUP_SIZE greater than 10 from the two tables TOUR_DETAILS and SEASON_DISCOUNT using LEFT OUTER JOIN operation. Order the resultant table by TOUR_PLACE. Expected fields from the query are TOUR_PLACE, TOUR_GUIDE, LANGUAGE, TOUR_DATE, GROUP_SIZE, GROUP_DISCOUNT

<u>**SPUFI:**</u>

Naming convention for SPUFI query member is **SB05yyZZ.** Member **should not contain** any **commented queries**.

Using SPUFI, write a select query to fetch all the records from SEASON_DISCOUNT with which record is having DISCOUNT less than or equal to 20 with converting the TOUR_PLACE & GUIDE to lower case.