

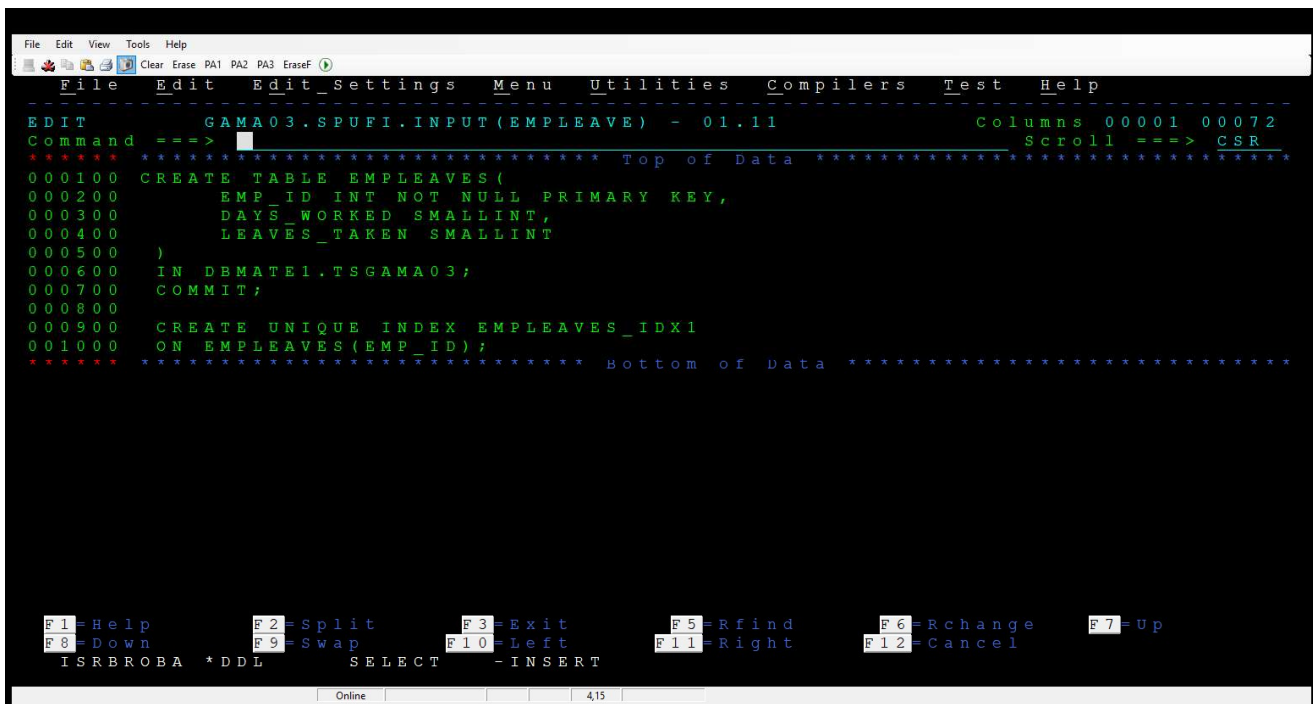
TEAMWARE SOLUTIONS

Mainframe Development Assignment – Creating a table and displaying the report.

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Assignment questions:

1. Create a table:



The screenshot shows a mainframe terminal window with a menu bar at the top containing: File, Edit, View, Tools, Help. Below the menu bar is a toolbar with icons for various functions. The main area of the terminal displays the following text:

```
EDIT GAMA03.SPUFI.INPUT(EMPLEAVE) - 01.11 Columns 00001 00072
Command ==> Scroll ==> CSR
***** Top of Data *****
000100 CREATE TABLE EMPLAVES(
000200 EMP_ID INT NOT NULL PRIMARY KEY,
000300 DAYS_WORKED SMALLINT,
000400 LEAVES_TAKEN SMALLINT
000500 )
000600 IN DBMATE1.TSGAMA03;
000700 COMMIT;
000800
000900 CREATE UNIQUE INDEX EMPLAVES_IDX1
001000 ON EMPLAVES(EMP_ID);
***** Bottom of Data *****
```

At the bottom of the terminal window, there is a legend for function keys:

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

Below the legend, the text "ISR BROBA *DDL SELECT -INSERT" is displayed. At the very bottom of the terminal window, the status bar shows "Online" and "4,15".

```
File Edit View Tools Help
Menu Utilities Compilers Help
BROWSE GAMA03.SPUFI.OUT Line 00000000 Col 001 080
Command ==> Scroll ==> PAGE
***** Top of Data *****
+-----+-----+-----+-----+-----+-----+
DROP TABLE EMPLEAVES; 00001012
+-----+-----+-----+-----+-----+-----+
DSNE616I STATEMENT EXECUTION WAS SUCCESSFUL, SQLCODE IS 0
+-----+-----+-----+-----+-----+-----+
CREATE TABLE EMPLEAVES( 00010010
EMP_ID INT NOT NULL PRIMARY KEY, 00020010
DAYS_WORKED SMALLINT, 00030010
LEAVES_TAKEN SMALLINT 00040010
) 00050010
IN DBMATE1.TSGAMA03; 00060011
+-----+-----+-----+-----+-----+-----+
DSNE616I STATEMENT EXECUTION WAS SUCCESSFUL, SQLCODE IS 0
+-----+-----+-----+-----+-----+-----+
COMMIT; 00070010
+-----+-----+-----+-----+-----+-----+
DSNE616I STATEMENT EXECUTION WAS SUCCESSFUL, SQLCODE IS 0
+-----+-----+-----+-----+-----+-----+
CREATE UNIQUE INDEX EMPLEAVES_IDX1 00080010
ON EMPLEAVES(EMP_ID); 00090010
+-----+-----+-----+-----+-----+-----+
DSNE616I STATEMENT EXECUTION WAS SUCCESSFUL, SQLCODE IS 0
+-----+-----+-----+-----+-----+-----+
F1=Help F2=Split F3=Exit F5=Rfind F7=Up F8=Down F9=Swap
F10=Left F11=Right F12=Cancel
* ISRBROB DDL SELECT -INSERT
Online 415
```

Confirm the table is created or not.

Hence it is created.

2. Inserting values through DML commands:

```
File Edit View Tools Help
File Edit Edit Settings Menu Utilities Compilers Test Help
EDIT GAMA03.SPUFI.INPUT(INSERT3) - 01.05 Columns 00001 00072
Command ==> Scroll ==> CSR
***** Top of Data *****
--MSG> -CAUTION- Profile changed to CAPS OFF (from CAPS ON) because data
--MSG> contains lower case characters.
000010 delete from emp_leaves;
000100 insert into emp_leaves(emp_id, days_worked, leaves_taken)
000200 values(001,23,7);
000300 insert into emp_leaves(emp_id, days_worked, leaves_taken)
000400 values(002,24,6);
000500 insert into emp_leaves(emp_id, days_worked, leaves_taken)
000600 values(003,25,5);
000700 insert into emp_leaves(emp_id, days_worked, leaves_taken)
000800 values(004,26,4);
000900 insert into emp_leaves(emp_id, days_worked, leaves_taken)
001000 values(005,27,3);
001100 insert into emp_leaves(emp_id, days_worked, leaves_taken)
001200 values(006,28,2);
001300 insert into emp_leaves(emp_id, days_worked, leaves_taken)
001400 values(007,29,1);
001500 insert into emp_leaves(emp_id, days_worked, leaves_taken)
001600 values(008,30,0);
001700 insert into emp_leaves(emp_id, days_worked, leaves_taken)
001800 values(009,10,20);
001900 insert into emp_leaves(emp_id, days_worked, leaves_taken)
002000 values(010,15,15);
002100
F1=Help F2=Split F3=Exit F5=Rfind F6=Rchange F7=Up
F8=Down F9=Swap F10=Left F11=Right F12=Cancel
- ISRBROB DDL SELECT *INSERT
Online 415
```

```

File Edit View Tools Help
Clear Erase PA1 PA2 PA3 EraseF
Menu Utilities Compilers Help
-----
BROWSE          GAMA03.SPUIF.OUT          Line 000000000 Col 001 080
Command ==>          Scroll ==> PAGE
***** Top of Data *****
-----+-----+-----+-----+-----+-----+-----+-----+-----+
DROP TABLE EMPLEAVES;                                00001012
-----+-----+-----+-----+-----+-----+-----+-----+-----+
DSNE616I STATEMENT EXECUTION WAS SUCCESSFUL, SQLCODE IS 0
-----+-----+-----+-----+-----+-----+-----+-----+-----+
CREATE TABLE EMPLEAVES(                                00010010
    EMP_ID INT NOT NULL PRIMARY KEY,                    00020010
    DAYS_WORKED SMALLINT,                                00030010
    LEAVES_TAKEN SMALLINT                                00040010
)                                                         00050010
IN DBMATE1.TSGAMA03;                                    00060011
-----+-----+-----+-----+-----+-----+-----+-----+-----+
DSNE616I STATEMENT EXECUTION WAS SUCCESSFUL, SQLCODE IS 0
-----+-----+-----+-----+-----+-----+-----+-----+-----+
COMMIT;                                                  00070010
-----+-----+-----+-----+-----+-----+-----+-----+-----+
DSNE616I STATEMENT EXECUTION WAS SUCCESSFUL, SQLCODE IS 0
-----+-----+-----+-----+-----+-----+-----+-----+-----+
CREATE UNIQUE INDEX EMPLEAVES_IDX1                      00080010
ON EMPLEAVES(EMP_ID);                                   00090010
-----+-----+-----+-----+-----+-----+-----+-----+-----+
DSNE616I STATEMENT EXECUTION WAS SUCCESSFUL, SQLCODE IS 0
-----+-----+-----+-----+-----+-----+-----+-----+-----+
F1=Help      F2=Split    F3=Exit    F5=Rfind    F7=Up      F8=Down    F9=Swap
F10=Left     F11=Right   F12=Cancel
-ISRBR0B DDL      SELECT      *INSERT

```

```

File Edit View Tools Help
Clear Erase PA1 PA2 PA3 EraseF

Menu Utilities Compilers Help
-----
BROWSE          GAMA03.SPUFI.OUT          Line 000000025 Col 001 080
Command ==->          Scroll ==-> PAGE
-----
DSNE617I COMMIT PERFORMED, SQLCODE IS 0
DSNE616I STATEMENT EXECUTION WAS SUCCESSFUL, SQLCODE IS 0
-----
DSNE601I SQL STATEMENTS ASSUMED TO BE BETWEEN COLUMNS 1 AND 72
DSNE620I NUMBER OF SQL STATEMENTS PROCESSED IS 4
DSNE621I NUMBER OF INPUT RECORDS READ IS 12
DSNE622I NUMBER OF OUTPUT RECORDS WRITTEN IS 32
***** Bottom of Data *****

```

F1=Help

F2=Split

F3=Exit

F5=Rfind

F7=Up

F8=Down

F9=Swap

F10=Left

F11=Right

F12=Cancel

-ISRBROB

DDL

SELECT

*INSERT

Online

4/15

Report using joins: (SELECT)

Here we're using joins to merge tables to display the employee details that is employee's department, monthly salary, monthly allowance, days worked, leaves taken.

```
File Edit View Tools Help
Clear Erase PA1 PA2 PA3 EraseF
File Edit Edit Settings Menu Utilities Compilers Test Help
EDIT GAMA03.SPUFI.INPUT(SELECT6) - 01.13 Columns 00001 00072
Command ==> Scroll ==> CSR
***** Top of Data *****
000100 SELECT
000200     D.DEPT_ID,
000300     D.DEPT_NAME,
000400     ED.EMPNO AS EMP_ID,
000500     S.EMP_MONTHLY_SAL AS EMP_ID,
000600     S.EMP_MONTHLY_BONUS AS MONTHLY_ALLOWANCE,
000700     L.DAYS_WORKED,
000800     L.LEAVES_TAKEN
000900 FROM
001000     DEPARTMENTS D
001100 JOIN
001200     EMPDEPT ED
001300     ON D.DEPT_ID = ED.DEPT_ID
001400 JOIN
001500     EMPSAL S
001600     ON ED.EMPNO = S.EMP_ID
001700 LEFT JOIN
001800     EMPLEAVES L
001900     ON S.EMP_ID = L.EMP_ID
002000 ORDER BY
002100     D.DEPT_ID,
002200     ED.EMPNO;
***** 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
-ISRBR0B DDL *SELECT INSERT
Online 415
```



SPUFI Output:

```
File Edit View Tools Help
Clear Erase PA1 PA2 PA3 EraseF
Menu Utilities Compilers Help
BROWSE GAMA03.SPUFI.OUT Line 00000023 Col 001 080
Command ==> Scroll ==> PAGE
ED.EMPNO; 00220013
DEPT_ID DEPT_NAME EMP_ID EMP_MONTHLY_SAL MONTHLY_ALLOWANCE DAYS_
+-----+-----+-----+-----+-----+-----+
adm admin 2 2000 200 2000
adm admin 6 6000 600 6000
dev development 4 4000 400 4000
dev development 9 9000 900 9000
fin human resource 3 3000 300 3000
fin human resource 10 1100 910 9100
hr human resource 7 7000 700 7000
oth others 8 8000 800 8000
sal sales 1 1000 100 1000
sal sales 5 5000 500 5000
DSNE610I NUMBER OF ROWS DISPLAYED IS 10
DSNE616I STATEMENT EXECUTION WAS SUCCESSFUL, SQLCODE IS 100
-----+-----+-----+-----+-----+-----+
DSNE617I COMMIT PERFORMED, SQLCODE IS 0
DSNE616I STATEMENT EXECUTION WAS SUCCESSFUL, SQLCODE IS 0
-----+-----+-----+-----+-----+-----+
DSNE601I SQL STATEMENTS ASSUMED TO BE BETWEEN COLUMNS 1 AND 72
DSNE620I NUMBER OF SQL STATEMENTS PROCESSED IS 1
DSNE621I NUMBER OF INPUT RECORDS READ IS 23
DSNE622I NUMBER OF OUTPUT RECORDS WRITTEN IS 47
F1=Help F2=Split F3=Exit F5=Rfind F7=Up F8=Down F9=Swap
F10=Left F11=Right F12=Cancel
*ISRBR0B -DDL DSNEPR1A ISR@PRIM
Online 415
```