```sas
LIBNAME SSN8 '/home/debendra330/BATCH_202401/SESSION_8/A3.SAS_DATASET';
RUN;


/* HOW TO CREATE A MACRO */
/* MACRO NAME CRITERIA */
/* HOW TO DEFINE A SAS MACRO VARIABLE USING %LET */
/* HOW TO DENOTE A MACRO AND MACRO VARIABLE IN THE PROGRAM */
/* DOES MACRO NAME AND VARIABLE NAME AND VALUES ARE CASE SENSITIVE */
/* DEFINING MACRO VARIABLES USING PARAMATERS (POSITIONAL AND KEYWORD) */
/* DEFINING MACRO VARIABLE USING %GLOBAL STATEMENT */
/* DEFINING MACRO VARIABLE USING %LOCAL STATEMENT */
/* DEFINING MACRO VARIABLE USING PROC SQL INTO */
/* DEFINING MACRO VARIABLE USING %DO LOOP */
/* DEFINING MACRO VARIABLE USING CALL SYMPUT */
/* SAS MACRO DEBUGGING OPTIONS */
/* HOW TO STORE SAS MACRO TO A PERMANENT LIBRARY */
/* USE OF %INCLUDE */
/* HOW TO SEE ALL THE USER DEFINED MACRO VARIABLES IN THE SAME PROGRAM */
/* HOW TO MAKE SAS MACRO PROGRAM CONDITIONALLY CALL USING %IF %THEN */
/* HOW TO DO SAS MACRO SCHEDULING */
/* SAS MACRO FUNCTIONS BY EXAMPLES */
/* SAS PROGRAMMING TO READ BATCH FILES IN EXCEL,CSV AND TXT FORMAT */


/* HOW TO CREATE A MACRO */
/* ============================== */

DATA SSN8.STAFF;
INFILE '/home/debendra330/BATCH_202401/SESSION_8/A1.RAW_DATA/a1.EMPLIST FM.txt';
INPUT LAST_NAME $ 1-20 FIRST_NAME $ 21-30 EMP_CODE $ 31-35 JOBTITLE $ 36-43 DOJ SALARY 54-59;
INFORMAT DOJ MMDDYY8.;
FORMAT DOJ MMDDYY10.;
RUN;

PROC PRINT DATA=SSN8.STAFF;
RUN;

%MACRO CREATE_STAFF_DATASET;

DATA SSN8.STAFF;
INFILE '/home/debendra330/BATCH_202401/SESSION_8/A1.RAW_DATA/a1.EMPLIST FM.txt';
INPUT LAST_NAME $ 1-20 FIRST_NAME $ 21-30 EMP_CODE $ 31-35 JOBTITLE $ 36-43 DOJ SALARY 54-59;
INFORMAT DOJ MMDDYY8.;
FORMAT DOJ MMDDYY10.;
RUN;

PROC PRINT DATA=SSN8.STAFF;
RUN;

%MEND;

%CREATE_STAFF_DATASET;


%MACRO CALL_DATASET;

PROC PRINT DATA=SASHELP.CLASS;
RUN;

%MEND;

%CALL_DATASET;

/* HOW DOES A MACRO STARTS AND ENDS? */

/* MACRO STARTS WITH %MACRO STATEMENT */
/* MACRO ENDS WITH %MEND */

/* MACRO NAME CRITERIA */
/* ============================ */
/* 1. IT SHOULD NOT BE MORE THAN 32 CHARACTERS LONG */
/* 2. IT MUST START WITH AN ALPHABET OR AN UNDERSCORE ONLY */
/* 3. IT MUST FOLLOW WITH AN UNDERSCORE, ALPHABET AND NUMBERS ONLY */


/* HOW TO DEFINE A SAS MACRO VARIABLE USING %LET */
/* ========================================================= */
```

```
PROC PRINT DATA=SSN8.STAFF;
RUN;

PROC PRINT DATA=SSN8.STAFF;
VAR LAST_NAME FIRST_NAME JOBTITLE SALARY;
RUN;

PROC PRINT DATA=SSN8.STAFF;
VAR LAST_NAME FIRST_NAME JOBTITLE SALARY;
WHERE JOBTITLE='Mechanic';
RUN;

%LET KEEP_VAR=LAST_NAME JOBTITLE SALARY;
%LET JBTL=Pilot;

PROC PRINT DATA=SSN8.STAFF;
VAR &KEEP_VAR.;
WHERE JOBTITLE="&JBTL.";
RUN;

/* WE USED %LET TO DEFINE MACRI VARIABLES */
/* AS */
/* 1. KEEP_VAR */
/* 2. JOBTL */
/*  */
/* THOSE MACRO VARIABLES CAN BE DENOTED IN THE PROG BY PRECEDED BY & SYMBOL */


/* HOW TO DENOTE A MACRO AND MACRO VARIABLE IN THE PROGRAM */
/* ========================================================== */

OPTIONS VALIDVARNAME=V7;
PROC IMPORT OUT=SSN8.MED_2024
            DATAFILE='/home/debendra330/BATCH_202401/SESSION_8/A1.RAW_DATA/a1.MED_STORE_2022.xlsx'
            DBMS=XLSX REPLACE;
RUN;

DATA MED_SELECT;
SET SSN8.MED_2024;
KEEP CUSTOMER_ID COMPANY GENDER AGE STATE_CODE SPENT_AMOUNT;
WHERE COMPANY='APPOLO' AND GENDER='Female' AND AGE >= 60 AND STATE_CODE='NSW';
RUN;

%LET VAR_LIST=CUSTOMER_ID COMPANY GENDER AGE STATE_CODE SPENT_AMOUNT;
%LET COMP=APPOLO;
%LET GEN=Female;
%LET AG=60;
%LET STCD=NSW;

DATA MED_SELECT;
SET SSN8.MED_2024;
KEEP &VAR_LIST.;
WHERE COMPANY="&COMP." AND GENDER="&GEN." AND AGE >= &AG. AND STATE_CODE="&STCD.";
RUN;

%LET VAR_LIST=CUSTOMER_ID COMPANY GENDER AGE STATE_CODE TOWN NO_OF_TRIPS SPENT_AMOUNT;
%LET COMP=CIPLA;
%LET GEN=Male;
%LET AG=40;
%LET STCD=QLD;

DATA MED_SELECT;
SET SSN8.MED_2024;
KEEP &VAR_LIST.;
WHERE COMPANY="&COMP." AND GENDER="&GEN." AND AGE >= &AG. AND STATE_CODE="&STCD.";
RUN;

/* IN THIS PROGRAM WE HAVE CALLED 5 MACRO VARIABLES */
/* 1. &VAR_LIST. */
/* 2. &COMP. */
/* 3. &GEN. */
/* 4. &AG. */
/* 5. &STCD. */

/* DOES MACRO NAME AND VARIABLE NAME AND VALUES ARE CASE SENSITIVE */
/* ================================================================== */

%MACRO CREATE_STAFF_DATASET;
```

```
DATA SSN8.STAFF;
INFILE '/home/debendra330/BATCH_202401/SESSION_8/A1.RAW_DATA/a1.EMPLIST FM.txt';
INPUT LAST_NAME $ 1-20 FIRST_NAME $ 21-30 EMP_CODE $ 31-35 JOBTITLE $ 36-43 DOJ SALARY 54-59;
INFORMAT DOJ MMDDYY8.;
FORMAT DOJ MMDDYY10.;
RUN;

PROC PRINT DATA=SSN8.STAFF;
RUN;

%MEND;

%Create_staff_DATASET;

/* SAS MACRO NAME IS NOT CASE SENSITIVE */


%LET VAR_LIST=CUSTOMER_ID COMPANY GENDER AGE STATE_CODE SPENT_AMOUNT;
%LET COMP=APPOLO;
%LET GEN=Female;
%LET AG=60;
%LET STCD=NSW;

DATA MED_SELECT;
SET SSN8.MED_2024;
KEEP &var_list.;
WHERE COMPANY="&COMP." AND GENDER="&GEN." AND AGE >= &ag. AND STATE_CODE="&STcd.";
RUN;

/* MACRO VARIABLES NAME ARE NOT CASE SENSITIVE */


%LET VAR_LIST=CUSTOMER_ID COMPANY GENDER AGE STATE_CODE SPENT_AMOUNT;
%LET COMP=appolo;
%LET GEN=Female;
%LET AG=60;
%LET STCD=NSW;

DATA MED_SELECT;
SET SSN8.MED_2024;
KEEP &var_list.;
WHERE COMPANY="&COMP." AND GENDER="&GEN." AND AGE >= &ag. AND STATE_CODE="&STcd.";
RUN;

/* MACRO VARIABLE VALUES ARE CASE SENSITIVE */

%LET VAR_LIST=CUSTOMER_ID COMPANY GENDER AGE STATE_CODE SPENT_AMOUNT;
%LET COMP="APPOLO","CIPLA","GENO","RELEGARE";
%LET GEN=Female;
%LET AG=60;
%LET STCD="NSW","WA","QLD","SA";

DATA MED_SELECT;
SET SSN8.MED_2024;
KEEP &var_list.;
WHERE COMPANY IN (&COMP.) AND GENDER="&GEN." AND AGE >= &AG. AND STATE_CODE IN (&STCD.);
RUN;

/* TEST */

OPTIONS VALIDVARNAME=V7;
PROC IMPORT OUT=SSN8.GLOBAL_SALES
            DATAFILE='/home/debendra330/BATCH_202401/SESSION_8/A1.RAW_DATA/a2.GLOBAL_SALES_2022.xlsx'
            DBMS=XLSX REPLACE;
RUN;

PROC CONTENTS DATA=SSN8.GLOBAL_SALES VARNUM SHORT;
RUN;

/*
Row_ID Order_ID Country Order_Date Order_Year
Order_Month Ship_Date Days_Gap Ship_Mode
Customer_ID Customer_Name Segment City
State Country_1 Postal_Code Market Region
Product_ID Category Sub_Category Product_Name Sales
Quantity Discount Discount_Amount Sales_After_Discount
Profit Shipping_Cost Order_Priority
*/
```

```
/* CREATE A DATASET WITH THE LIST OF VARIABLES AS */
/* Row_ID */
/* Order_ID */
/* Country */
/* Customer_ID */
/* Segment */
/* Product_ID */
/* Product_Name */
/* Sales */
/* Quantity */
/* Order_Priority */

%LET LIST_VARS=Row_ID Order_ID Country Customer_ID Segment Product_ID Product_Name Sales Quantity Order_Priority;
%LET SEG=Consumer;
%LET LOCATION=US;

DATA GLOBAL_SALES;
SET SSN8.GLOBAL_SALES;
KEEP &LIST_VARS.;
WHERE SEGMENT="&SEG." AND COUNTRY="&LOCATION.";
RUN;

/* DEFINING MACRO VARIABLES USING PARAMATERS (POSITIONAL AND KEYWORD) */
/* ========================================================================== */

DATA MED_APPOLO;
SET SSN8.MED_2024;
KEEP CUSTOMER_ID COMPANY GENDER AGE STATE_CODE SPENT_AMOUNT;
WHERE COMPANY='APPOLO' AND GENDER='Female' AND AGE >= 50 AND STATE_CODE='NSW';
RUN;

DATA MED_CIPLA;
SET SSN8.MED_2024;
KEEP CUSTOMER_ID COMPANY GENDER AGE STATE_CODE SPENT_AMOUNT;
WHERE COMPANY='CIPLA' AND GENDER='Male' AND AGE >= 60 AND STATE_CODE='WA';
RUN;

DATA MED_GENO;
SET SSN8.MED_2024;
KEEP CUSTOMER_ID COMPANY GENDER AGE STATE_CODE SPENT_AMOUNT;
WHERE COMPANY='GENO' AND GENDER='Female' AND AGE >= 50 AND STATE_CODE='QLD';
RUN;

/* FROM THE ABOVE PROGRAM , WE CAN SEE IT IS REDUNDANT IN NATURE */
/* FOR  */
/* DATASETS NAME */
/* COMPANY VALUES */
/* GENDER VALUES */
/* AGE VALUES */
/* STATE_CODE VALUES */

/* TO AUTOMATE THIS PROCESS */

/* CREATE MACRO VARIABLES USING POSITIONAL PARAMATERS */

/* DEFINING MACRO VARIABLES USING POSITIONAL PARAMATER */

%MACRO MAC1 (COMP_NAME,COMP_VAL,GEN_VAL,AGE_VAL,STCD_VAL);
DATA MED_&COMP_NAME.;
SET SSN8.MED_2024;
KEEP CUSTOMER_ID COMPANY GENDER AGE STATE_CODE SPENT_AMOUNT;
WHERE COMPANY="&COMP_VAL." AND GENDER="&GEN_VAL." AND AGE >= &AGE_VAL. AND STATE_CODE="&STCD_VAL.";
RUN;
%MEND;

/* CALL MACRO USING PASSING PARAMATER VALUES */
%MAC1 (RELEGARE,RELEGARE,Male,50,WA);
%MAC1 (CIPLA,CIPLA,Male,50,QLD);
%MAC1 (MED_PLUS,MED_PLUS,Female,60,NSW);

/* DEFINING MACRO VARIABLES USING KEYWORD PARAMATER */

%MACRO MAC2 (COMP_NAME=,COMP_VAL=,GEN_VAL=,AGE_VAL=,STCD_VAL=);
DATA MED_&COMP_NAME.;
SET SSN8.MED_2024;
KEEP CUSTOMER_ID COMPANY GENDER AGE STATE_CODE SPENT_AMOUNT;
WHERE COMPANY="&COMP_VAL." AND GENDER="&GEN_VAL." AND AGE >= &AGE_VAL. AND STATE_CODE="&STCD_VAL.";
RUN;
%MEND;
```

```
%MAC2 (COMP_NAME=APPOLO,COMP_VAL=APPOLO,GEN_VAL=Male,AGE_VAL=60,STCD_VAL=NSW);
%MAC2 (COMP_NAME=RELEGARE,COMP_VAL=RELEGARE,GEN_VAL=Male,AGE_VAL=60,STCD_VAL=WA);


/* WE CAN INTERCHANGE THE MACXRO KEYWORD PAPAMETER VARIABLES */
%MAC2 (AGE_VAL=60,COMP_NAME=RELEGARE,GEN_VAL=Male,STCD_VAL=WA,COMP_VAL=RELEGARE);

/* CAN WE HAVE BOTH POSITIONAL AND KEYWORD PARAMTER TOGETHER */
/* ========================================================= */

%MACRO MAC3 (COMP_NAME,COMP_VAL,GEN_VAL,AGE_VAL=,STCD_VAL=);
DATA MED_&COMP_NAME.;
SET SSN8.MED_2024;
KEEP CUSTOMER_ID COMPANY GENDER AGE STATE_CODE SPENT_AMOUNT;
WHERE COMPANY="&COMP_VAL." AND GENDER="&GEN_VAL." AND AGE >= &AGE_VAL. AND STATE_CODE="&STCD_VAL.";
RUN;
%MEND;

%MAC3 (GSK,GSK,Female,AGE_VAL=50,STCD_VAL=ACT);

/* WE CAN USE BOTH POSITIONAL AND KEYWORD PARAMETERS TOGETHER. HOWEVER, IT MUST START WITH POSITIONAL PARAMETERS */

/* DEFINING MACRO VARIABLE USING %GLOBAL STATEMENT */
/* ========================================================= */

%LET COMP_VAL=APPOLO;

DATA MED_SELECT;
SET SSN8.MED_2024;
KEEP CUSTOMER_ID COMPANY GENDER AGE STATE_CODE SPENT_AMOUNT;
WHERE COMPANY="&COMP_VAL.";
RUN;

%MACRO MAC4;
%GLOBAL COMP;
%LET COMP=&COMP_VAL.;
DATA MED_SELECT;
SET SSN8.MED_2024;
KEEP CUSTOMER_ID COMPANY GENDER AGE STATE_CODE SPENT_AMOUNT;
WHERE COMPANY="&COMP.";
RUN;
%MEND;

%MAC4;

%MACRO MAC4;
%GLOBAL COMP;
%LET COMP=CIPLA;
DATA MED_SELECT;
SET SSN8.MED_2024;
KEEP CUSTOMER_ID COMPANY GENDER AGE STATE_CODE SPENT_AMOUNT;
WHERE COMPANY="&COMP.";
RUN;
%MEND;

%MAC4;

DATA MED_SELECT;
SET SSN8.MED_2024;
KEEP CUSTOMER_ID COMPANY GENDER AGE STATE_CODE SPENT_AMOUNT;
WHERE COMPANY="&COMP.";
RUN;

/* ANY MACRO VARIABLE DEFINED USING %GLOBAL IS CALLED A GLOBAL MACRO VARIABLE */
/*  */
/* BENEFIT OF HAVING GLOBAL MACRO VARIABLE IS THAT , IT CAN BE CALLED WITHIN THE MACRO AND OUTSIDE THE MACRO */

/* DEFINING MACRO VARIABLE USING %LOCAL STATEMENT */
/* ========================================================= */

%LET COMP_VAL=APPOLO;

DATA MED_SELECT;
SET SSN8.MED_2024;
KEEP CUSTOMER_ID COMPANY GENDER AGE STATE_CODE SPENT_AMOUNT;
WHERE COMPANY="&COMP_VAL.";
RUN;
```

```
%MACRO MAC5 (COMP_VAL);
%LOCAL COMP_LOCAL;
%LET COMP_LOCAL=&COMP_VAL.;
DATA MED_SELECT;
SET SSN8.MED_2024;
KEEP CUSTOMER_ID COMPANY GENDER AGE STATE_CODE SPENT_AMOUNT;
WHERE COMPANY="&COMP_LOCAL.";
RUN;
%MEND;

%MAC5 (GSK);
```

```
DATA MED_SELECT;
SET SSN8.MED_2024;
KEEP CUSTOMER_ID COMPANY GENDER AGE STATE_CODE SPENT_AMOUNT;
WHERE COMPANY="&COMP_LOCAL.";
RUN;

/* %LOCAL MACRO VARIABLE IS A LOCCAL MACRO VARIABLE AND IT CAN NOT CALLED OUTSIDE THE MACRO PROGRAM */


/* TEST */

%LET MED_COMP=GSK;
```

```
DATA MED_NEW;
SET SSN8.MED_2024;
KEEP CUSTOMER_ID COMPANY GENDER AGE STATE_CODE SPENT_AMOUNT;
WHERE COMPANY="&MED_COMP.";
RUN;
```

```
%MACRO MAC6;
%GLOBAL MED_COMP;
%LET MED_COMP=RELEGARE;
DATA MED_NEW;
SET SSN8.MED_2024;
KEEP CUSTOMER_ID COMPANY GENDER AGE STATE_CODE SPENT_AMOUNT;
WHERE COMPANY="&MED_COMP.";
RUN;
%MEND;

%MAC6;
```

```
DATA MED_NEW;
SET SSN8.MED_2024;
KEEP CUSTOMER_ID COMPANY GENDER AGE STATE_CODE SPENT_AMOUNT;
WHERE COMPANY="&MED_COMP.";
RUN;

/* %LOCAL TEST */

%LET MED_COMP=GSK;
```

```
DATA MED_NEW;
SET SSN8.MED_2024;
KEEP CUSTOMER_ID COMPANY GENDER AGE STATE_CODE SPENT_AMOUNT;
WHERE COMPANY="&MED_COMP.";
RUN;
```

```
%MACRO MAC7 (COMP);
%LOCAL MED_COMP;
%LET MED_COMP=&COMP.;
DATA MED_NEW;
SET SSN8.MED_2024;
KEEP CUSTOMER_ID COMPANY GENDER AGE STATE_CODE SPENT_AMOUNT;
WHERE COMPANY="&MED_COMP.";
RUN;
%MEND;

%MAC7 (APPOLO);
```

```
DATA MED_NEW;
SET SSN8.MED_2024;
KEEP CUSTOMER_ID COMPANY GENDER AGE STATE_CODE SPENT_AMOUNT;
WHERE COMPANY="&MED_COMP.";
RUN;
```

```
/* EXAMPLE */

%LET STCD=NSW;
DATA MED_SELECT;
SET SSN8.MED_2024;
KEEP CUSTOMER_ID COMPANY GENDER STATE_CODE;
WHERE STATE_CODE="&STCD.";
RUN;

%MACRO MAC7;
%GLOBAL STCD;
%LET STCD=QLD;
DATA MED_SELECT;
SET SSN8.MED_2024;
KEEP CUSTOMER_ID COMPANY GENDER STATE_CODE;
WHERE STATE_CODE="&STCD.";
RUN;
%MEND;

%MAC7;

DATA MED_SELECT;
SET SSN8.MED_2024;
KEEP CUSTOMER_ID COMPANY GENDER STATE_CODE;
WHERE STATE_CODE="&STCD.";
RUN;

/* %GLOBAL IS ALWAYS A GLOBAL MACRO VARIABLE */


%LET STCD=NSW;
DATA MED_SELECT;
SET SSN8.MED_2024;
KEEP CUSTOMER_ID COMPANY GENDER STATE_CODE;
WHERE STATE_CODE="&STCD.";
RUN;

%MACRO MAC8 (STCD_VAL);
%LOCAL STCD;
%LET STCD=&STCD_VAL.;
DATA MED_SELECT;
SET SSN8.MED_2024;
KEEP CUSTOMER_ID COMPANY GENDER STATE_CODE;
WHERE STATE_CODE="&STCD.";
RUN;
%MEND;

%MAC8 (WA);

DATA MED_SELECT;
SET SSN8.MED_2024;
KEEP CUSTOMER_ID COMPANY GENDER STATE_CODE;
WHERE STATE_CODE="&STCD.";
RUN;

/* %LOCAL MACRO VARIABLE IS CALLED WITHIN THE MACRO ONLY */


/* DEFINING MACRO VARIABLE USING PROC SQL INTO */
/* ================================================= */

PROC SQL;
SELECT DISTINCT COMPANY FROM SSN8.MED_2024;
QUIT;

/* LETS STORE ALL THE UNIQUE VALUES TO MACRO VARIABLE VALUES */

PROC SQL;
SELECT DISTINCT COMPANY
       INTO :COMP1 - :COMP9
FROM SSN8.MED_2024;
QUIT;

%PUT &COMP1.;

%PUT &COMP2.;

%PUT &COMP9.;
```

```
%PUT &COMP6.;

DATA MED_&COMP1.;
SET SSN8.MED_2024;
KEEP CUSTOMER_ID COMPANY GENDER STATE_CODE;
WHERE COMPANY="&COMP1.";
RUN;

DATA MED_&COMP9.;
SET SSN8.MED_2024;
KEEP CUSTOMER_ID COMPANY GENDER STATE_CODE;
WHERE COMPANY="&COMP9.";
RUN;

PROC SQL;
CREATE TABLE MED_&COMP1.
AS
SELECT
CUSTOMER_ID,
COMPANY,
GENDER,
AGE,
STATE_CODE,
SPENT_AMOUNT
FROM SSN8.MED_2024
WHERE COMPANY="&COMP1.";
QUIT;

PROC SQL;
CREATE TABLE MED_&COMP2.
AS
SELECT
CUSTOMER_ID,
COMPANY,
GENDER,
AGE,
STATE_CODE,
SPENT_AMOUNT
FROM SSN8.MED_2024
WHERE COMPANY="&COMP2.";
QUIT;

%MACRO HAHAHA;
%DO I=1 %TO 9;
PROC SQL;
CREATE TABLE MED_&&COMP&I.
AS
SELECT
CUSTOMER_ID,
COMPANY,
GENDER,
AGE,
STATE_CODE,
SPENT_AMOUNT
FROM SSN8.MED_2024
WHERE COMPANY="&&COMP&I.";
QUIT;
%END;
%MEND;

%HAHAHA;

/* CRAETE MULTIPLE DATASETS USING BASE SAS PROGRAMMING */

DATA MED_AUS_&COMP1.;
SET SSN8.MED_2024;
KEEP CUSTOMER_ID COMPANY GENDER AGE STATE_CODE SPENT_AMOUNT;
WHERE COMPANY="&COMP1.";
RUN;

DATA MED_AUS_&COMP9.;
SET SSN8.MED_2024;
KEEP CUSTOMER_ID COMPANY GENDER AGE STATE_CODE SPENT_AMOUNT;
WHERE COMPANY="&COMP9.";
RUN;


DATA MED_AUS_APPOLO MED_AUS_CIPLA MED_AUS_GENO MED_AUS_OTHERS;
SET SSN8.MED_2024;
```

```
KEEP CUSTOMER_ID COMPANY GENDER AGE STATE_CODE SPENT_AMOUNT;
IF COMPANY='APPOLO' THEN OUTPUT MED_AUS_APPOLO;
ELSE IF COMPANY='CIPLA' THEN OUTPUT MED_AUS_CIPLA;
ELSE IF COMPANY='GENO' THEN OUTPUT MED_AUS_GENO;
ELSE OUTPUT MED_AUS_OTHERS;
RUN;
```

```
%MACRO ALL_DATASET;

DATA %DO I=1 %TO 9;
     MED_AUS_&&COMP&I.
     %END;;
SET SSN8.MED_2024;
KEEP CUSTOMER_ID COMPANY GENDER AGE STATE_CODE SPENT_AMOUNT;
%DO I=1 %TO 9;
IF COMPANY="&&COMP&I." THEN OUTPUT MED_AUS_&&COMP&I.;
%END;
RUN;

%MEND;

%ALL_DATASET;
```

```
/* TEST */

/* CREATE ALL STATEMES INDIVIDUAL DATASET */
```

```
PROC SQL;
SELECT DISTINCT STATE_CODE FROM SSN8.MED_2024;
QUIT;
```

```
PROC SQL;
SELECT DISTINCT STATE_CODE
INTO :STCD1 - :STCD7
FROM SSN8.MED_2024;
QUIT;

%PUT &STCD1.;

%PUT &STCD7.;
```

```
%MACRO BABABA;
%DO I=1 %TO 7;
PROC SQL;
CREATE TABLE MED_&&STCD&I.
AS
SELECT
CUSTOMER_ID,
COMPANY,
GENDER,
AGE,
STATE_CODE,
SPENT_AMOUNT
FROM SSN8.MED_2024
WHERE STATE_CODE="&&STCD&I.";
QUIT;
%END;
%MEND;

%BABABA;
```

```
%MACRO ALL_DATASET;

DATA %DO I=1 %TO 7;
     MED_AUS_&&STCD&I.
     %END;;
SET SSN8.MED_2024;
KEEP CUSTOMER_ID COMPANY GENDER AGE STATE_CODE SPENT_AMOUNT;
%DO I=1 %TO 7;
IF STATE_CODE="&&STCD&I." THEN OUTPUT MED_AUS_&&STCD&I.;
%END;
RUN;

%MEND;
```

```
%ALL_DATASET;

/* PRACTICAL */
/* ================= */

OPTIONS VALIDVARNAME=V7;
PROC IMPORT OUT=MED_APPOLO
            DATAFILE='/home/debendra330/BATCH_202401/SESSION_8/A1.RAW_DATA/a3.MED_ALL_2023.xlsx'
            DBMS=XLSX REPLACE;
            SHEET='APPOLO';
RUN;

OPTIONS VALIDVARNAME=V7;
PROC IMPORT OUT=MED_CIPLA
            DATAFILE='/home/debendra330/BATCH_202401/SESSION_8/A1.RAW_DATA/a3.MED_ALL_2023.xlsx'
            DBMS=XLSX REPLACE;
            SHEET='CIPLA';
RUN;

OPTIONS VALIDVARNAME=V7;
PROC IMPORT OUT=MED_GENO
            DATAFILE='/home/debendra330/BATCH_202401/SESSION_8/A1.RAW_DATA/a3.MED_ALL_2023.xlsx'
            DBMS=XLSX REPLACE;
            SHEET='GENO';
RUN;

%PUT &COMP1.;
%PUT &COMP2.;
%PUT &COMP3.;
%PUT &COMP4.;
%PUT &COMP5.;
%PUT &COMP6.;
%PUT &COMP7.;
%PUT &COMP8.;
%PUT &COMP9.;

%MACRO IMPORT_ALL;
%DO I=1 %TO 9;
OPTIONS VALIDVARNAME=V7;
PROC IMPORT OUT=MED_&&COMP&I.
            DATAFILE='/home/debendra330/BATCH_202401/SESSION_8/A1.RAW_DATA/a3.MED_ALL_2023.xlsx'
            DBMS=XLSX REPLACE;
            SHEET="&&COMP&I.";
RUN;
%END;
%MEND;

%IMPORT_ALL;

/* WHY WE USE && */

%LET COMP1=APPOLO;
%LET N=1;

%PUT &&COMP&N.;

%LET NAME1=SWETA;
%LET NAME2=RAVI;

%LET N=2;

%PUT &&NAME&N.;
```