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**SAS language** a programming language used to manage your data.

**SAS procedures** software tools for data analysis and reporting.

DATASET contains

* **data values** that has been collected or calculated
* **descriptor information** that describes to SAS the contents of the data set

In the **explorer window** you can view and manage your sas files which are stored in libraries

The **result window** helps you navigate and manage your output(generated by sas programs that you submit)

In the **editor window** you edit your program

In the **log window** you view messages about your sas session and programs that you submit.

A **SAS library is a group of SAS files that are stored in the same directory** [EX: C:\DOCUMENTS\......] **and accessed by the same engine**. All SAS files reside in a SAS library.

SAS data sets can have a **one-level name or a two-level name**. Typically, **names of temporary SAS data sets have only one level and are stored in the WORK library**. The WORK library is defined automatically at the beginning of the SAS session and is deleted automatically at the end of the SAS session. Procedures assume that SAS data sets that are specified with a one-level name are to be read from or written to the WORK library.

Typically, **two-level names represent permanent SAS data sets**. A two-level name takes the form libref.SAS-data-set. The libref is a name that is temporarily associated with a SAS library. A SAS library is an external storage location that stores SAS data sets in your operating environment. A LIBNAME statement associates the libref with the SAS library.

**‘ ’** single quotation marks

**“ ”** quotation marks

**;** semicolon -> each instruction ends with ;

**.** decimal point NOT comma(,)

**-** hyphen

**( )** Round brackets

**||** vertical bar

**/\*…\*/** If you want to write notes in the editor window

Rules for Most SAS Names

* The first character must be an English letter (A, B, C, . . ., Z) or underscore (\_).
* Subsequent characters can be letters, numeric digits (0, 1, . . ., 9), or underscores.
* You can use uppercase or lowercase letters.
* Blanks cannot appear in SAS names.
* Special characters, except for the underscore, are not allowed.
* When creating variables, do not use the names of special SAS automatic variables (for example, \_N\_ and \_ERROR\_) or special variable list names (for example, \_CHARACTER\_, \_NUMERIC\_, and \_ALL\_).
* When associating a libref with a SAS library, do not use these libref names: SASHELP, SASMSG, SASUSER, WORK

**DATA STEP**

DATA….;

……;

……;

…… ;

RUN;

What Does the DATA Step Do?

The DATA step processes input data. In a DATA step, **you can create a SAS data set**, which can be a SAS data file or a SAS view. DATA step can compute values, select specific input records for processing, and use conditional logic. The output from the DATA step can be of several types, such as a SAS data set or a report.

DATA Step Output

The output from the DATA step can be a SAS data set or an external file such as the program log, a report, or an external data file. You can also update an existing file in place, without creating a separate data set.

**PROC STEP**

PROC…….;

……;

……;

…… ;

RUN;

What Does the PROC Step Do?

The PROC step consists of a group of SAS statements that call and execute a procedure, usually with a SAS data set as input. Use PROCs **to analyze the data in a SAS data set, produce formatted reports or other results, or provide ways to manage SAS files**. You can modify PROCs with minimal effort to generate the output that you need.

PROC Step Output

The output from a PROC step can provide **univariate descriptive statistics, frequency tables, crosstabulation tables, tabular reports consisting of descriptive statistics, charts, plots, and so on**. Output can also be in the form of an updated data set.

Sas help:

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