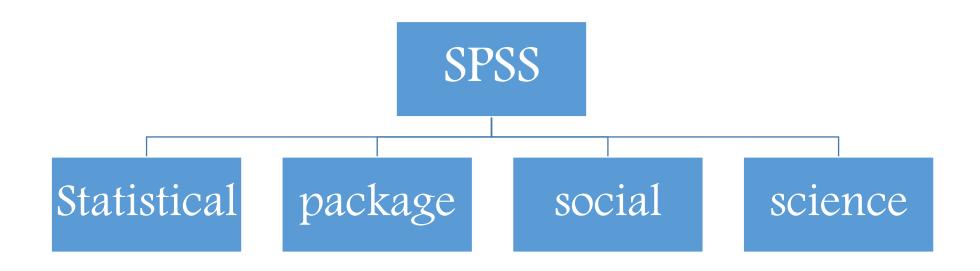
CHAPTER ONE

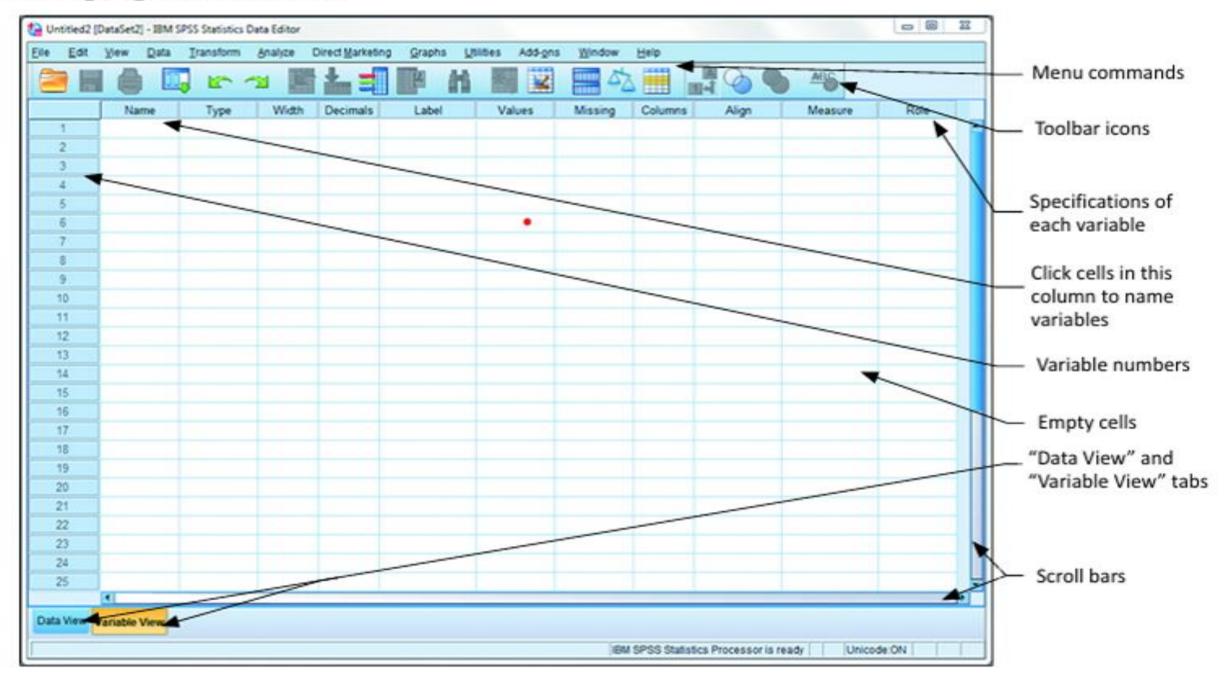
• Introduction of Statistical Program (SPSS)

SPSS (Statistical Package for the Social Sciences)

SPSS: Is a computer program used for statistical data analysis. It provides tools for performing statistical analyses, managing data, and creating charts and reports. It is widely used in academic research, business, and healthcare due to its user-friendly interface and ability to handle both simple and complex analyses.



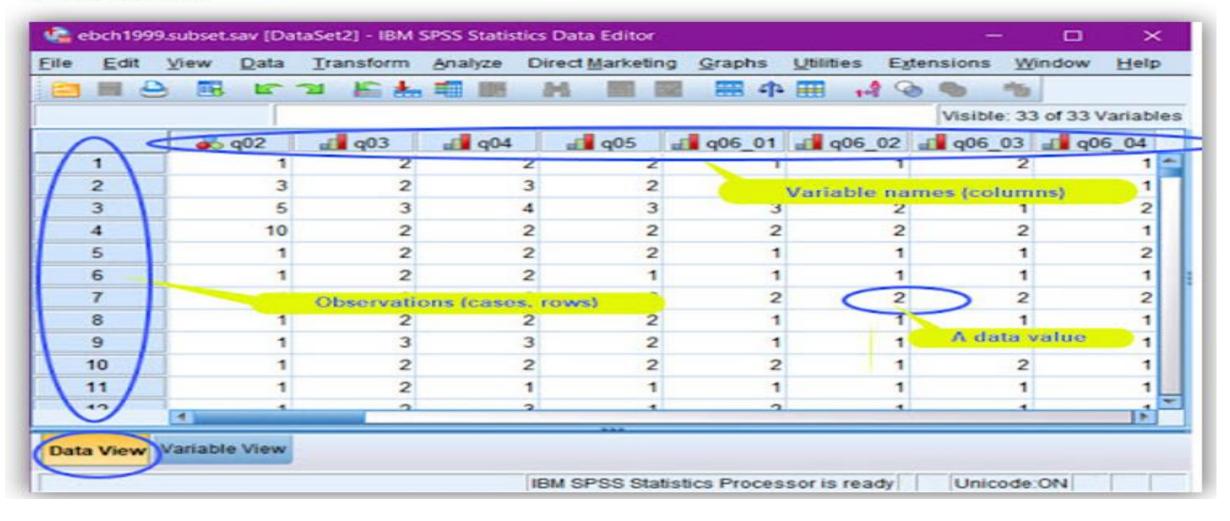
SPSS program windows:



spss program screens

The SPSS analysis program consists of three basic Windows, which are:

1-DATA VIEW Window: The task of this Window is to enter data that can be represented by data resulting from a questionnaire, observation, or any scientific research tool.



Data view vs. Variable view

- Data view
 - Rows are cases
 - Columns are variables
- Variable view
 - Rows define the variables
 - Name, Type, Width, Decimals, Label, Missing, etc.
 - Scale age, weight, income
 - Nominal categories that cannot be ranked (ID number)
 - Ordinal categories that can be ranked (level of satisfaction)

Dealing with Variables in SPSS Program

In this Variable View, you can adjust the properties of each of your variables under 10 categories: Name, Type, Width, Decimals, Label, Values, Missing, Columns, Align and Measure.

- 1 Name: The first column in this variable display window contains the name .It is important to consider the following points when entering a name for the variable:
- A- The number of characters must not exceed 64 and the variable name must not be repeated.
- B- Spaces cannot be used between characters.
- C- The variable name must start with a letter and cannot end with a period,
- D- The name must not end with a dot.
- E- The variable name must not include spaces or special symbols such as ?, *,!
- F- You cannot use symbols or signs such as %, ^, | #, \$, &, or parentheses ().
- G-You can write in <u>upper or lower case</u> letters for variable names in English, and you can write variable names in Arabic, taking into account the previous conditions
- H- You cannot use punctuation marks such as ? * : !,';"
- I- Do not use a name from the names reserved for SPSS commands such as:

 (ALL, NE, EQ, TO, LE, LT, BY, OR, GT, AND, NOT, GE, WITH, etc...)

- 2 Type: This is the second column and the function of this column is to determine the type of data that will be entered for this variable and it contains several types of variables, which are:
- A- Numeric: The numeric variable is the default type of variables in the data display sheet.

Nariable Type		
Numeric Comma Dot Scientific notation Date Dollar Custom currency String Restricted Numeric (integer with leading Numeric never uses digit grouping.) OK Care		

- B- <u>Comma</u>: It is a numeric variable with a comma added to separate every three ranks, such as the number 622776.022, which is written as 622,776.022.
- C- <u>Dot</u>: It is a numeric variable with the use of (.) to separate every three ranks such as the previous number is written in this form 622.776.022 according to this type.

D- <u>SCIENTIFIC NOTATIONS</u>: It is a symbol written in the notation E format, such as the number 10^7 written as 1.0 E+ 07 and the number 1234 written as 1.2 E+03.

$$236.563E05 = 236.563 \times 10^{5} = 23656300$$

 $200.03E-05 = 200.03 \times 10^{-5} = 0.0020003$

E- Date: A variable that represents the date or time in hours.



F-Dollar: A regular numeric variable used to represent money in dollars.

Variable Type		? ×
C Numeric C Comma C Dot C Scientific notation	\$# \$## \$### \$#### \$#,### \$#,###	OK Cancel Help
C Date Dollar C Custom currency C String	Width: 8 Decimal Places: 2	

G- <u>Custom Currency</u>: A regular numeric variable used to represent money in currencies known to the user. It can be adjusted from the selection:

Edit → option → current

Variable Type		? ×
© Numeric © Comma © Dot © Scientific notation © Date © Dollar © Custom currency	Sample	OK Cancel Help
C String		

H- <u>String</u>: It is a symbolic variable (like a name) and is used when the variable data is symbols or names and not numbers.

The square width: represents the number of places of the <u>variable</u>. This applies to both numeric and string.

The square places decimal: represents the number of decimal places for numeric variables only.

3-Width : specifies the total number of digits that can be displayed, including decimal points and any signs (like negative signs). It dictates how many characters the variable can contain overall.

4-Decimal: Represents the number of decimal places allocated to the fraction in the number (numeric, comma, period) (Decimal places can be increased by adding them up and down.