Salahaddin University-Erbil
College of Administration and Economics
Department of Statistics and information

Computer Application - SPSS Program

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Stage Four

First Semester

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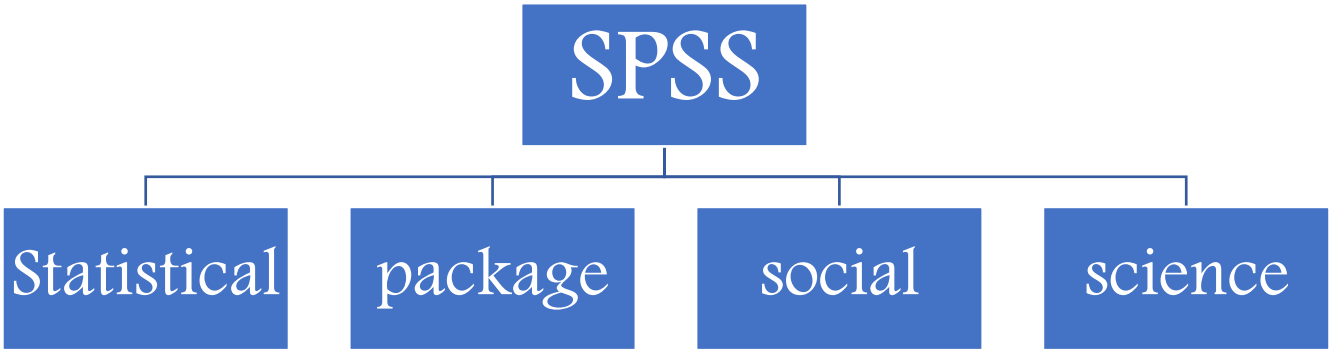
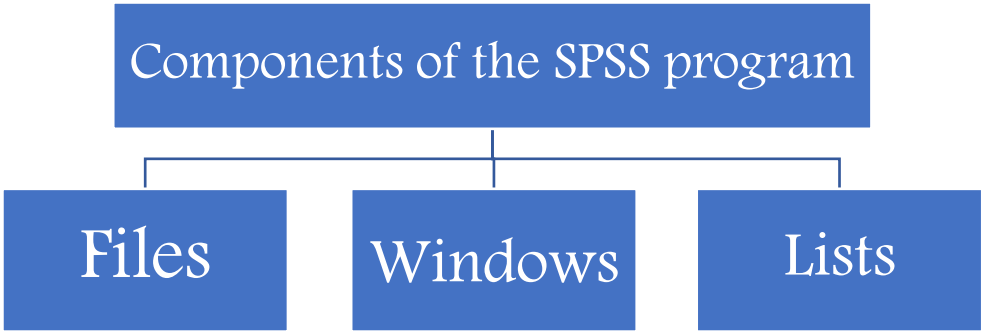
CHAPTER ONE

• 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.





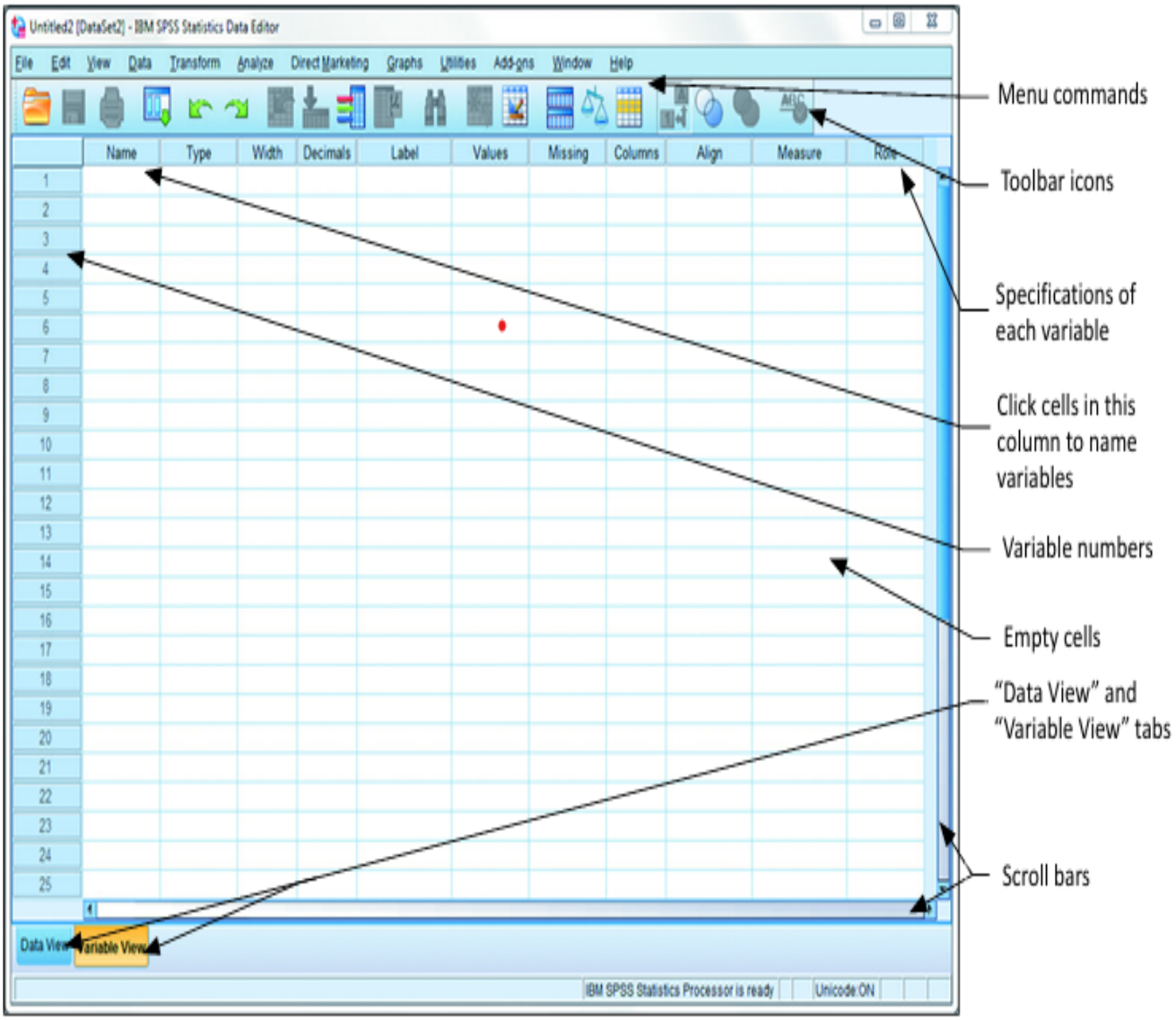
➢ **<u>Types of files that make up SPSS:</u>**

1- Data files: These are files that contain the data that we enter through the data editor window to later perform the required statistical analysis. The extension of the names of this type of files is (sav---.).

2- Statistical output files: These are the files that contain the results of the statistical analysis. The extension of the names of this type of files is (spv---.) .

3-syntax files: These are files that contain procedures or commands written in a special programming language to enable you to perform statistical operations., The extension of the names of this type of files is (sps.)

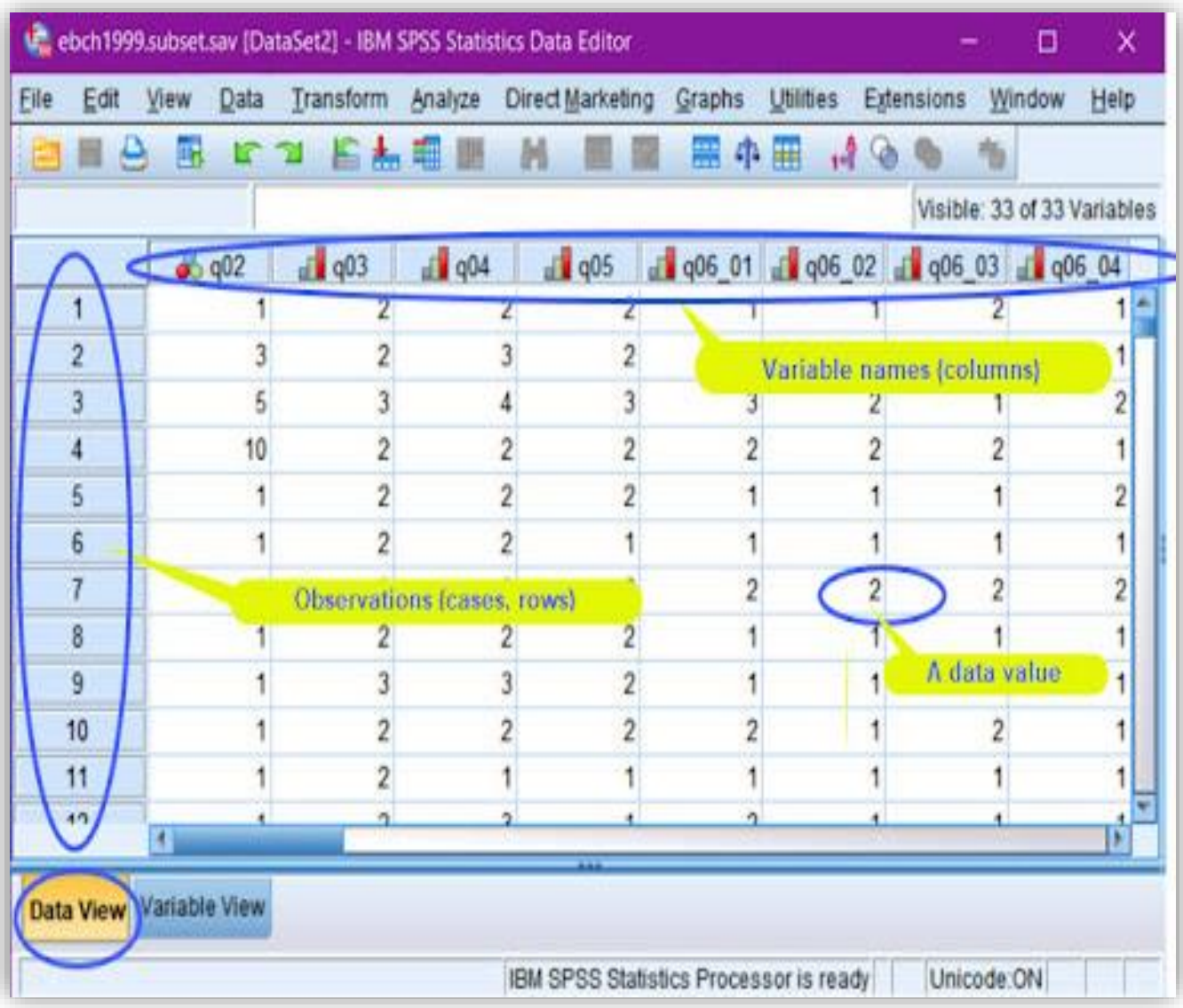
- **SPSS program windows:**



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.

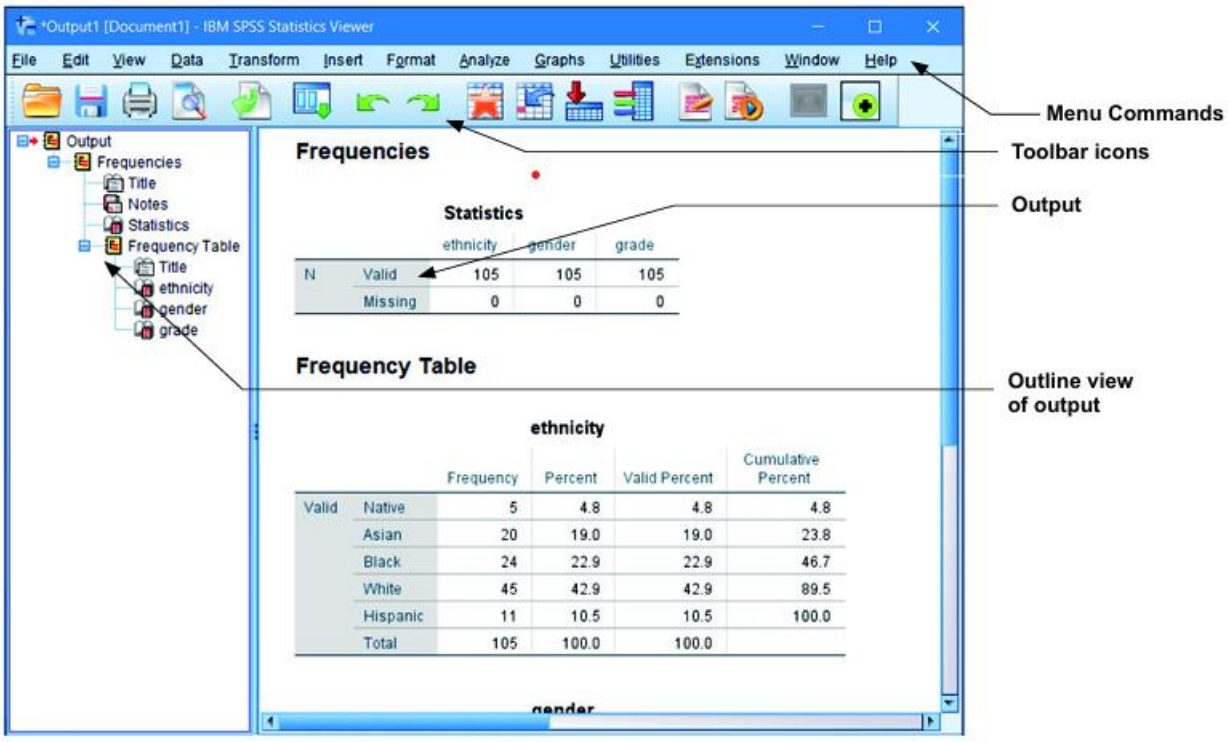


2-VARIABLE VIEW Window: This Window is related to the characteristics of the research variables, and consists of columns, and each column contains information related to each variable, and its definition, such as names, types, and measurement levels.

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)

3- OUTPUT VIEW Window: This Window displays the results of the statistical analysis of the processes chosen by the user.



➢ 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 ?, *, !

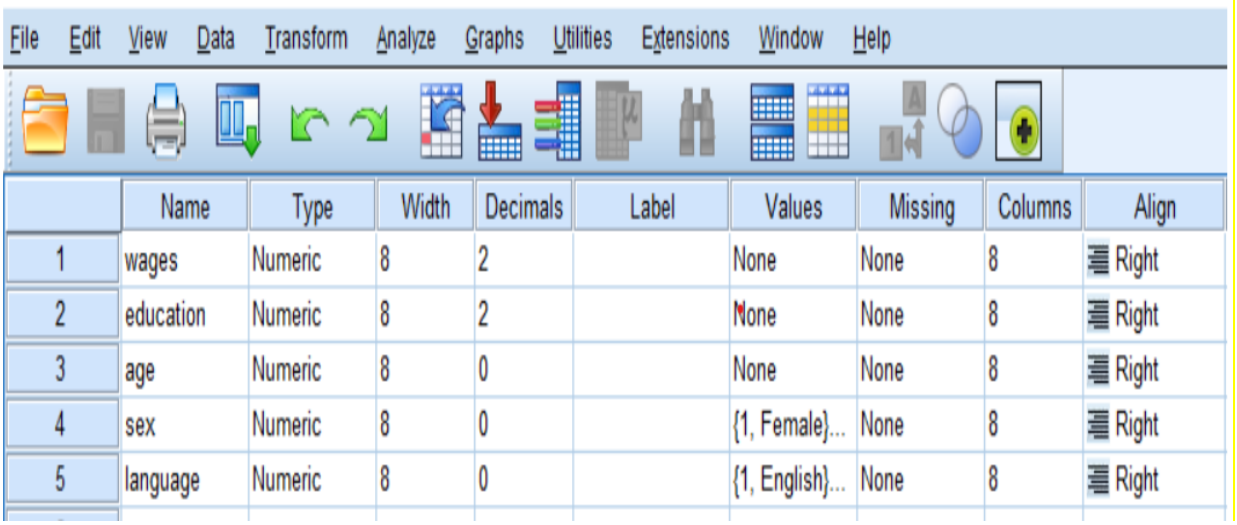
F- You cannot use symbols or signs such as %, ^, | #, $, &, or parentheses ().

G-You can write in upper or lower case 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:

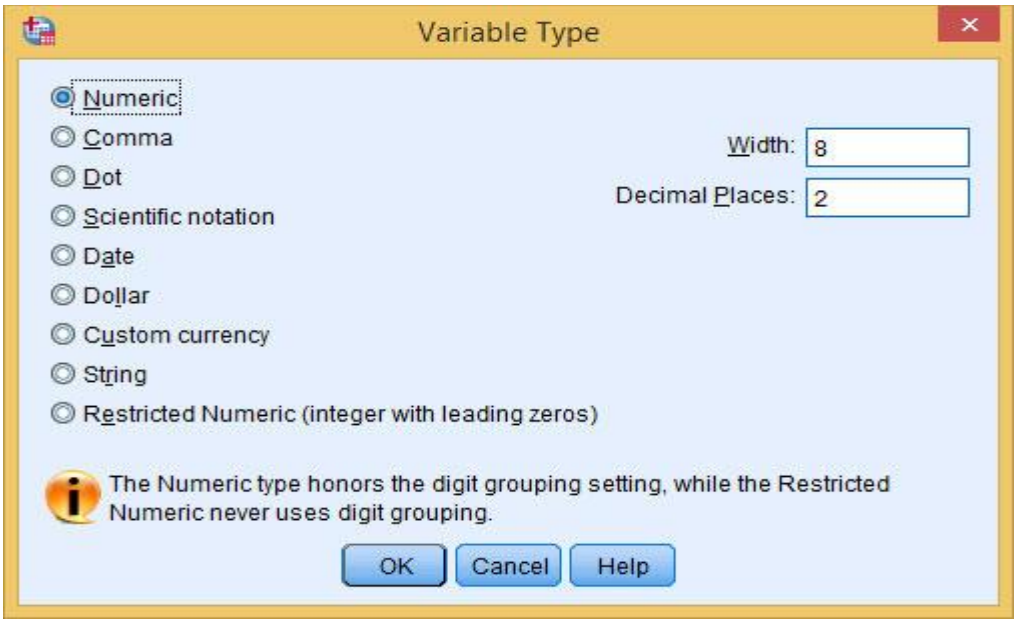
(ALL, NE, EQ, TO, LE, LT, BY, OR, GT, AND, NOT, GE, WITH, etc…)



	Name	Type	Width	Decimals	Label	Values	Missing	Columns	Align
1	wages	Numeric	8	2		None	None	8	Right
2	education	Numeric	8	2		None	None	8	Right
3	age	Numeric	8	0		None	None	8	Right
4	sex	Numeric	8	0		{1, Female}...	None	8	Right
5	language	Numeric	8	0		{1, English}...	None	8	Right

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.



B- **Comma**: 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.

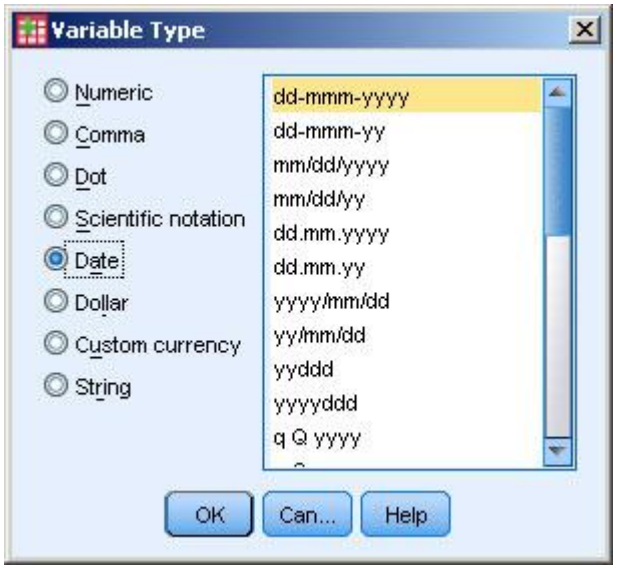
C- Dot: It is a numeric variable with the use of (.) to separate every three ranks such as the previous number is written in this form 622.776.022 according to this type.

D- **SCIENTIFIC NOTATIONS**: 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 .

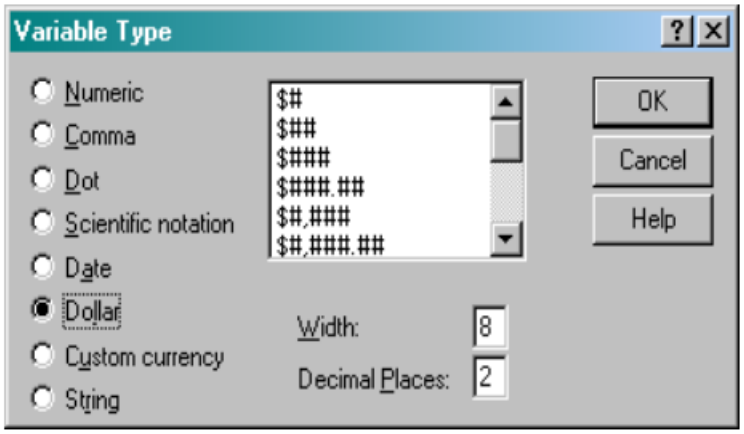
$$\mathbf{236.563E05 = 236.563 \times 10^5 = 23656300}$$

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

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

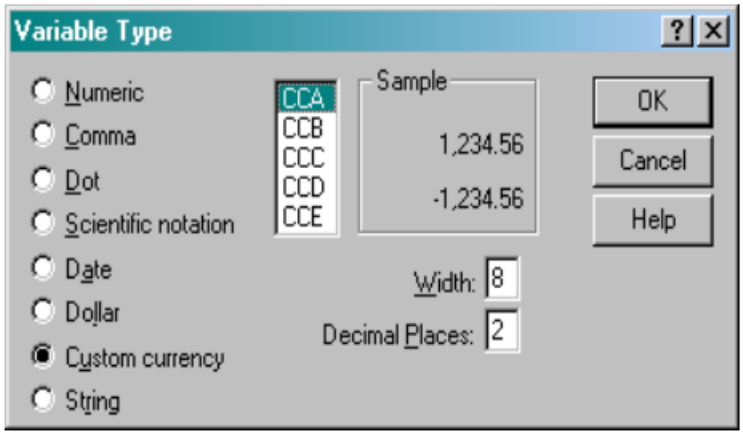


F-**Dollar** : A regular numeric variable used to represent money in dollars.



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

Edit ⟶ option ⟶ current



H- **String** :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 variable , This applies to both numeric and string.

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

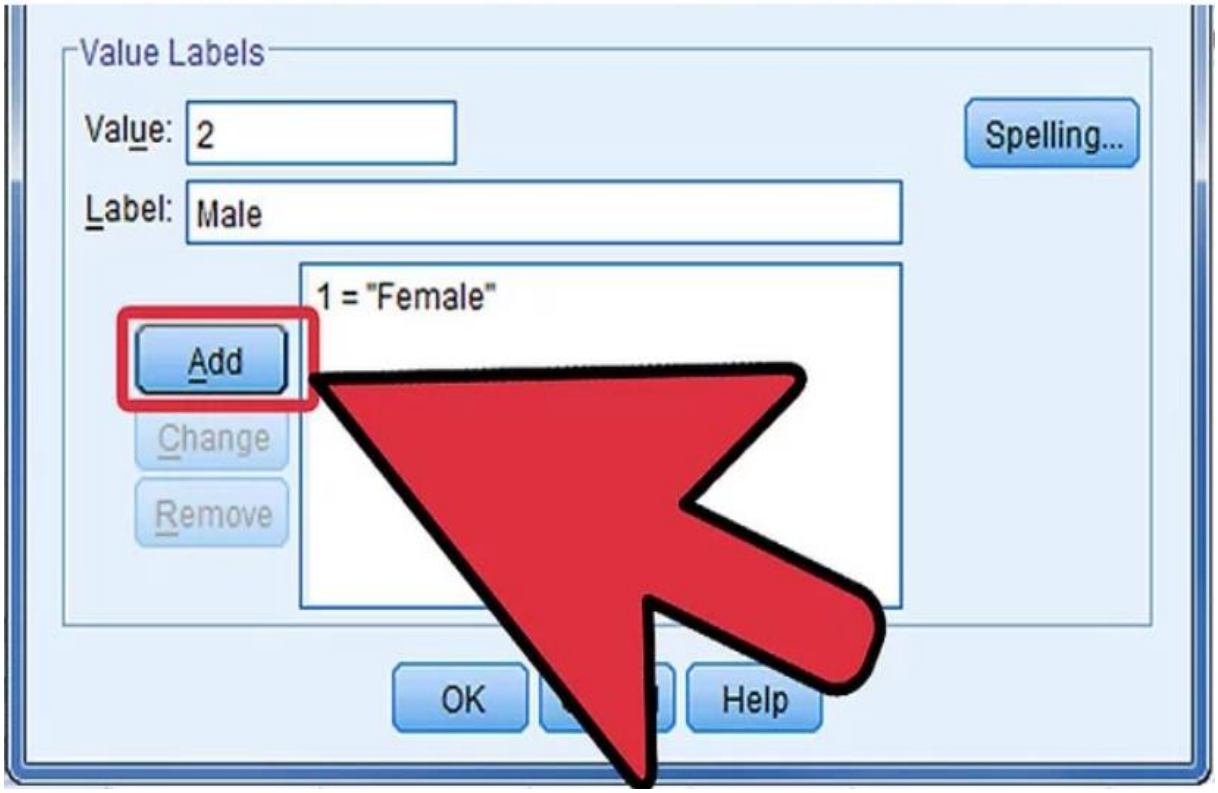
3-Width : specifies the total number of digits that can be displayed, including decimal points and any signs (like negative signs). It dictates how many characters the variable can contain overall.

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.

5-Label : A variable can be given a name of up to 257 characters used to describe the variable .

6-Value Labels: Sometimes it is necessary to give a value an address because the variable uses numeric values to represent non-numeric values, such as using 0 for male and 2 for female, or letters instead of words.

The dialog box for this command appears as in the image below:



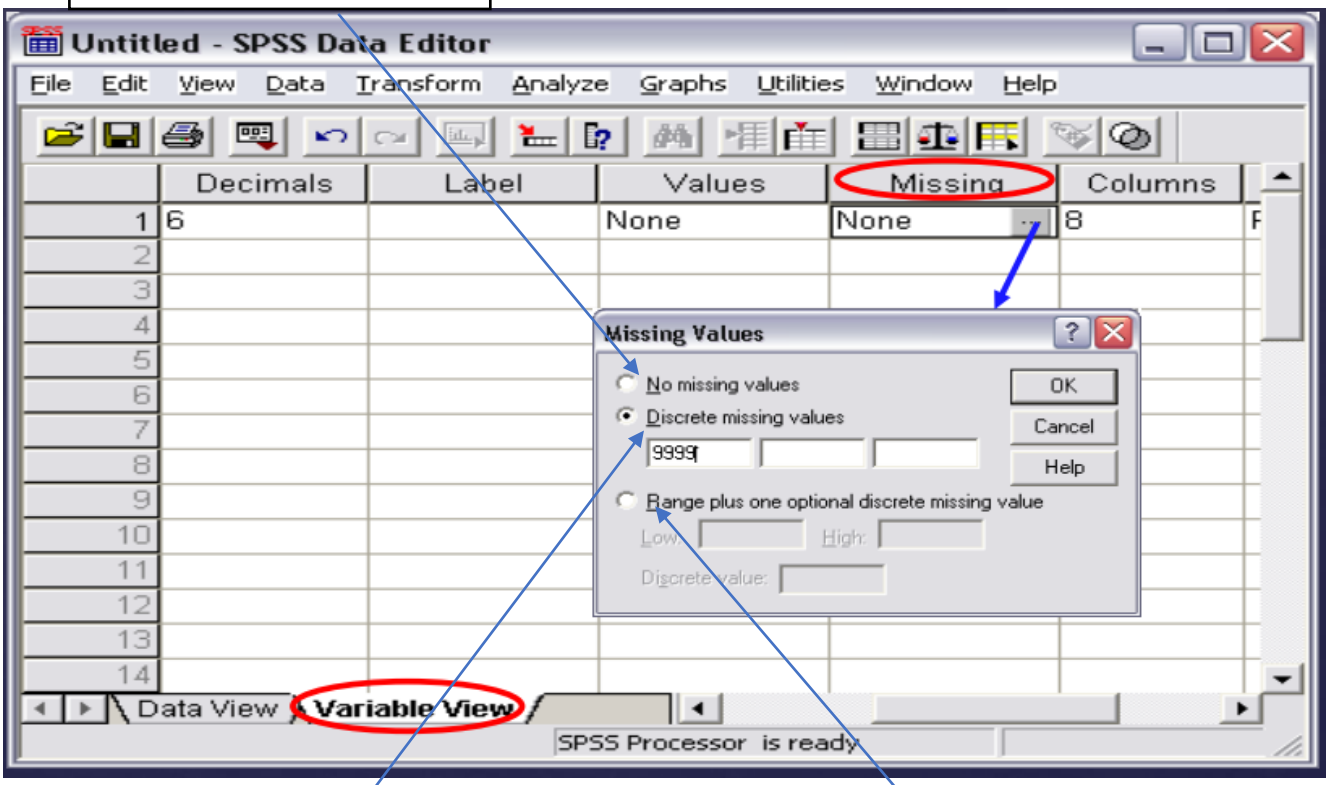
Where we write the number or letter in the value box, and in the value Label box we write the word or phrase, then

We press the add key, and the number and the symbol that indicates it are added.

7-Missing : Missing data are values that were not collected or entered into the data set. Their presence can significantly affect the results of a statistical analysis.

in the case of not taking into consideration the (neglected اهمال) to some of the existing values, but may be abnormal or extreme or because the question does not apply to the respondent. And can be used by clicking directly on the Missing, we get the following dialog box:

If you do not want to identify any missing values

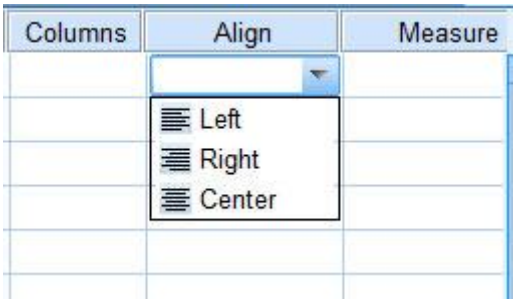


Allows you to identify up to three specific values as missing values (e.g 999, -1).

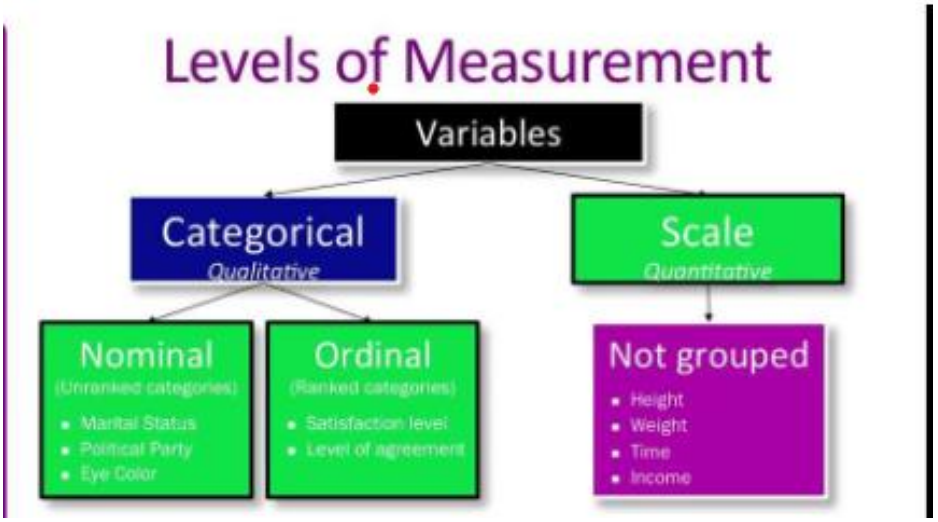
Allows you to identify a range of values as missing values (e.g. 1 to 10) plus one additional specific value (e.g. 999).

8-Column : Specifies the width of the column in which the variable is located in the Data.

9-Alignment: It is the alignment of the data (right, center, left) in the column .



10-Measure : To specify the data type (Scale, Ordinal, Nominal).



1-Scale: This option (scale) for quantitative data, whether continuous or discrete, specifies any data that can be measured in familiar units such as weight, length, volume, etc.

2-Ordinal: This option (ordinal) specifies any data that can be measured in familiar units but is arranged in ascending or descending order, such as educational attainment, student grades in a particular subject, etc.

3-Nominal: This option (nominal) for descriptive data specifies any data that can be measured in familiar units but is not arranged in ascending or descending order, such as marital status, city, etc.

Example: If we have the form shown below and we want to enter the data into the SPSS program:

وەزارەتی خوێندنی باڵا و توێژینەوەی زانستی

زانکۆی سەلاحەددین – هەولێر

کۆلێژی بەڕێوەبردن و ئابووری- بەشی ئامار وزانیارییەکان

بەشی ئامار

2021 - 2020

هاوڵاتی بەڕێز.....

ئەو فۆرمەی لەبەردەستتدایە ڕاپرسیە دەربارەی ((کاریگەریەکانی بێکاری لە کۆمەڵگا)) بە مەبەستی توێژینەوەی زانستی داواکارم لە بەڕێزتان وەڵامی پرسیارەکان بدەنەوە , وەڵام دانەوەتان بەشێوەیەکی دروست ڕێزگرتنە لە ماندووبوونمان .....

سوپاس بۆ هاوکاریتان

پرسیارە گشتیەکان :

1- ڕەگەز : نێر ( ) مێ ( )

2- تەمەن :{ }(18 =25) ساڵ { } (26 – 33) ساڵ { }(34-41 { } (زیاتر لە 41)ساڵ

3- باری کۆمەڵایەتی : خێزاند ار ( ) سەڵت ( ) هیتر ( )

4- ئاستی خوێندەواری : سەرەتای ( ) ناوەندی ( ) دواناوەندی ( ) دبلۆم ( )

بەکالۆریۆس ( ) ماستەر ( ) دکتۆرا ( )

5- باری ئابوری : زۆرباش ( ) باش ( ) مامناوەند ( ) خراپ ( )

6- شوینی نیشتەجێ : ناوشار ( ) دەرەوەی شار ( )

پرسیارە تایبەتیەکان:

ژ	کاریگەریەکان	لەگەڵم بەتەواوی	لەگەڵم	بێ لایەن	لەگەڵ نیم	لەگەڵ نیم بەتەواوی
1	حکومەت نەیتوانیوە هەلی کار بڕەخسێنێ					
2	کەرتی تایبەت نەیتوانیوە بازاڕی کار بۆ گەنجان فەراهەم بکات					
3	بێکاری پەیوەندی بە ڕەفتاری لادەرانەی وەک کوشتن , دزی , خۆکوشتن و بەکارهێنانی ماددەی هۆشبەرەوە هەیە					
4	نەبوونی کار هۆکارە بۆ تێکچونی باری تەندروستی و دەروونی					
5	کەمی موچە یان کەمکردنەوەی موچە لە کەرتی تایبەت کاریگەری هەیە لەسەر زیادکردنی بێکاری					
6	نەزانینی زمانێکی تر جگە لە زمانی دایک هۆکارە بۆ بێکاری					
7	بێکاری دەبێتە هۆی لەتبوونی خێزان وەک جیابوونەوە					
8	بێکاری دەبێتە هۆی بۆشای دروستبوون وبلاوبونەوەی کارە ناڕەواپەکان و لادان و سەرکێشی بەهەموو جۆرەکانیەوە					
9	بێکاری دەبێتە هۆی زیادبوونی نەخوێندەواری و نەزانی کۆمەلایەتی					
10	قەیرانی ئابووری نێستای هەرێمی کوردستان کاریگەری لەسەر بێکاری هەبووە					
11	بێکاری هۆکارە بۆ چوونە پاڵ کەسانی نەشیاو					
12	بێکاری دەبێتە هۆی پەیوەندی نا یاسای بەهۆی خۆلادان لە هاوسەرگیری					
13	کرێکاری بیانی هۆکارە بۆ بێکاری					
14	تەمەن ڕێگرە لە دەستنەکەوتنی کار					
15	بێکاری یەکێکە لە هۆکارەکانی بیرکردنەوە لە کۆچ					
16	بێکاری وا لە بێکاران دەکات کە زیاتر گۆشەگیربن و دوورین لە کۆمەڵگا					
17	نەبوونی بڕوانامە هۆکارە بۆ بێکاری					
18	بڵاوبونەوەی ڤایرۆسی کۆرۆنا کاریگەری هەیە بۆ نەبوونی هەلی کار					
19	کەمی نەزمون و ڕاهێنان کاریگەری هەیە لەسەر بێکاری					
20	قبوڵنەکردنی هەندێك کار لەلایەن خێزان					