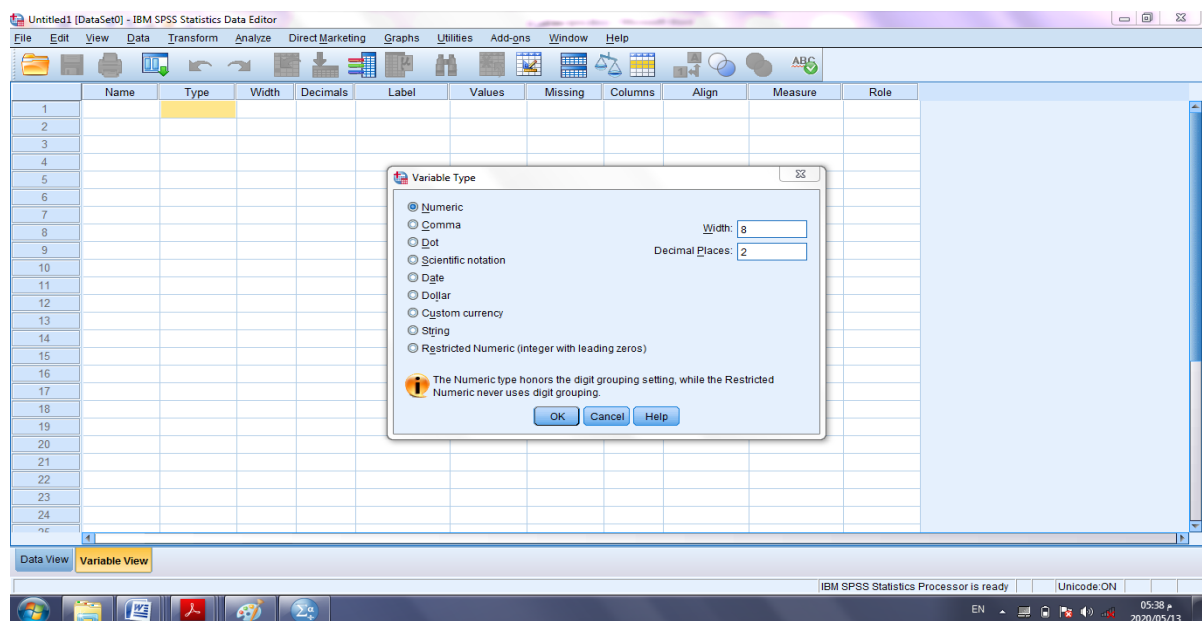


**variable view sheet :** It was explained in the previous lecture.

**1. Variable Name :** It was explained in the previous lecture.

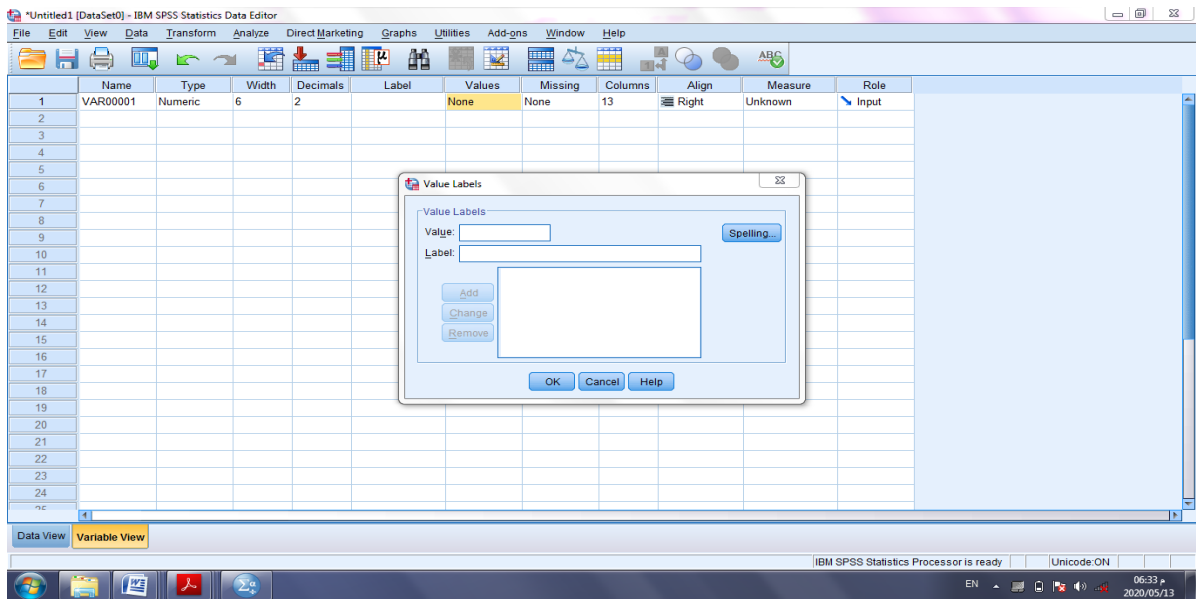
**2. Variable Type :** The function of this column is to determine the type of data that will be entered for this variable in the data view sheet. When you click on it, a dialog box appears containing several types of variables, from which we choose one. These types are :



- ✚ Numeric: A numeric variable is the default type for variables in a data view sheet.
- ✚ Comma: It is a numeric variable with a comma (,) separating every three integers, such as the number 622776022 which is written as 622,776,022 under this type.
- ✚ Dot: It is a numeric variable with (.) is used to dot the integer part from the decimal part. The previous number is written as follows: 622.776,022 according to this choice.

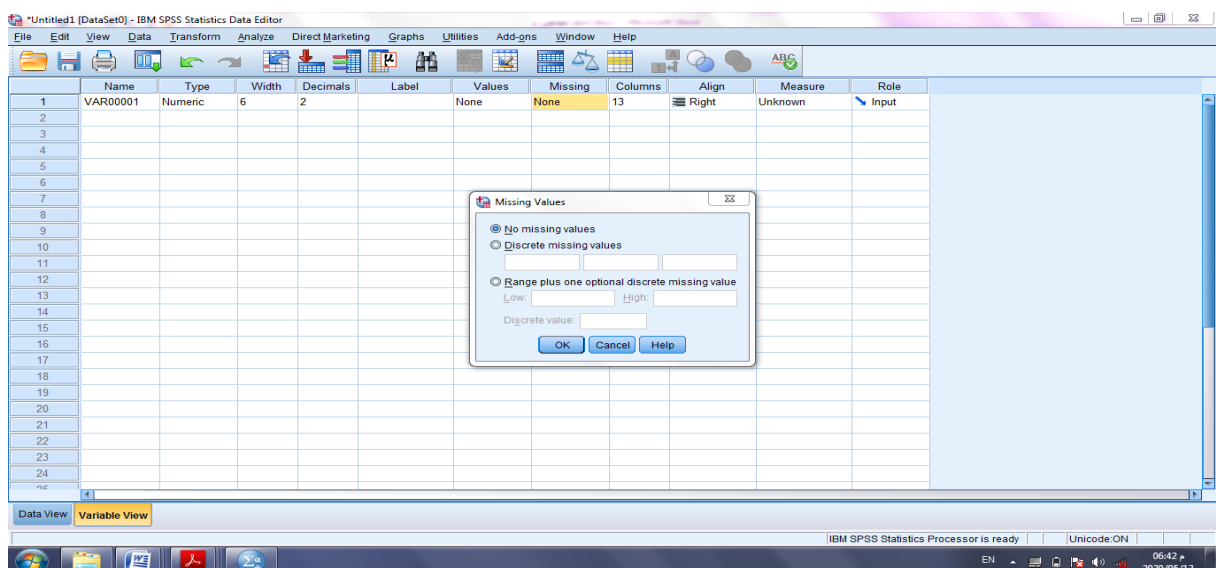
- ✚ Scientific notation: It is a symbol written in E-notation. For example, the number  $10^5$  is written as 1.0 E+05.
- ✚ Date: A variable representing a date or time, for example, time in hours.
- ✚ Dollar: Used as a symbol for the US dollar.
- ✚ Custom currency: Used to define the beneficiary of the function on the currency. It can be set from Edit > Options > Currenc.
- ✚ String: It is a symbolic variable (a name, for example) and is used when the variable data is symbols or names and not numbers.

3. **Variable width:** Width represents the number of symbols allocated to the numeric part plus the decimal point symbol and the remaining symbols are allocated to the integer in the case of numeric variables. As for non-numeric variables, the variable width represents the number of symbols allocated to the non-numeric variable. Note that the variable width can also be specified from the variable type dialog box.
4. **Number of decimal places:** Decimals represents the number of decimal places allocated to the decimal fraction. In numeric variables (dot, comma, numeric), the decimal places can be increased or decreased by using the up and down arrows. Note that the decimal places can also be specified from the dialog box Variable type.
5. **Variable Label :** Title The variable can cover a title of up to 256 characters used to describe the variable. This title is used instead of the variable name in the outputs (tables) of the SPSS program.
6. **Values :** Sometimes there is a need to assign a value address because the variable uses numeric values to express non-numeric values, such as the number 1 to express males and the number 2 to express females, or letters instead of words.






The dialog box appears in the image above, where we write the number or letter in the value box, and in the label box we write the word or phrase, then we click on the Add key after activating it, and the number and the symbol indicating it are added.

7. **Missing** : Sometimes we want to define some missing values That is, these values are originally present but we do not want to enter them in the statistical analysis because they are values that we do not want to enter in the statistical analysis or they do not exist at all. The dialog box appears in the image Below:






**8. Columns** : Columns can be specified for a specific variable by standing on the cell located within the column in the variable view sheet, where the column width can be increased or decreased by using the up or down arrows or by writing the column width directly.

**9. Align** : To adjust the text alignment within the variable cells, we select the column named align in the variable view sheet and choose one of the following commands:

-  Left : Aligns the text to the left of the cell.
-  Right : Aligns the text to the right of the cell.
-  Center : Aligns the text in the center of the cell.

**10. Measurement** : To define a specific variable scale, click on the variable cell that is located in the measure column in the variable view sheet, where three options appear as follows:

-  scale: used for numerical data such as variables of length and weight...etc.
-  ordinal: used to measure ordinal changes when the variable has a specific number of categories that can be arranged in ascending or descending order, but the differences between them cannot be accurately determined, such as students' grades in exams (excellent, very good, good, average, acceptable, weak).
-  nominal: used to measure nominal variables, which are variables that have a number of categories without any preference for one over the other) that cannot be arranged in ascending order (such as dividing society into males and females. For example, if we symbolize the number 1 for males and the number 2 for females, these two numbers do not give the true meaning of this variable, and mathematical operations cannot be performed on this type of variable This type of variable can be numerical or symbolic, for example, the governorate variable (Baghdad, Mosul, Basra). We use nominal with it because it is not possible to arrange the governorates with a specific precedence.