



# SPSS

**Lect.:**

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## Objectives :

- What is **SPSS** ?
- Historical background
- Used in
- Feature of **SPSS**
- Getting into program
- Advantages & Disadvantages



# What is SPSS ?

- SPSS - Statistical Package for the Social Sciences
- SPSS is a comprehensive and flexible statistical analysis and data management solution.
- SPSS is a computer program used for survey authoring and deployment, data mining, text analytics, statistical analysis, and collaboration and deployment
- SPSS can take data from almost any type of file and use them to generate tabulated reports, charts, and plots of distributions and trends, descriptive statistics, and conduct complex statistical analyses
- SPSS is among the most widely used programs for statistical analysis in social science.



## Historical background

- Its is developed by Norman H. Nie and C. Hadlai Hull of IBM Corporation in the year 1968. It is compatible with Windows, Linux, UNIX & Mac operating systems. SPSS is among the most widely used programs for statistical analysis in social science.



## Used in

- Telecommunications
- Banking
- Finance
- Insurance
- Healthcare
- Manufacturing
- Retail
- Consumer packaged goods
- Higher education , etc....



## Feature of **SPSS** :

- It is easy to learn and use
- It includes a full range of data management system and editing tools.
- It provides in-depth statistical capabilities
- It offers complete plotting, reporting and presentation features.



# Getting into program :

## -The Four Windows:

- Data Editor
- Output Viewer
- Syntax editor
- Script Window





# Getting into program :

Opening SPSS in windows 7

START – ALL PROGRAMS – SPSS INS –SPSS 16.0







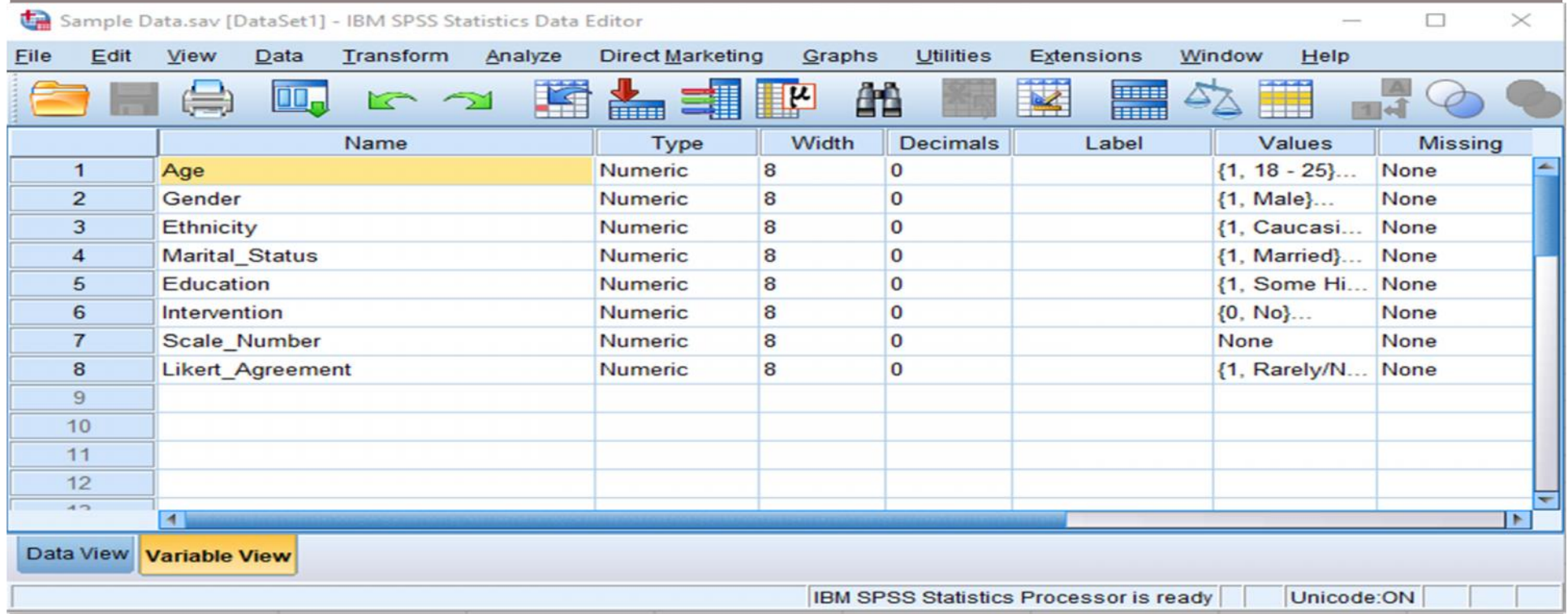
# The program widows :

## **-There Four Windows:**

- Data Editor
- Output Viewer
- Syntax editor
- Script Window



- Data editor : spread sheet-like the system for defining ,entering, editing and displaying data. Extension of the saved file will be “sav”





# The four windows :output viewer

Output viewer :

Display output and errors .Extension of the saved file will be “spv”

The screenshot shows the IBM SPSS Statistics Viewer window titled "\*Output1 [Document1] - IBM SPSS Statistics Viewer". The window has a menu bar (File, Edit, View, Data, Transform, Insert, Format, Analyze, Graphs, Custom, Utilities, Add-ons, Window, Help) and a toolbar. The left pane shows a tree view of the output, with "Output" expanded to show "Log", "Descriptives", "Title", "Notes", "Active Dataset", and "Descriptive Statistics". The right pane displays the output for "Descriptives".

DESCRIPTIVES VARIABLES=salary salbegin  
/STATISTICS=MEAN STDDEV MIN MAX.

→ **Descriptives**

[DataSet1] U:\SPSS\Workshops\Data\Employee data.sav

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
Current Salary	474	\$15,750	\$135,000	\$34,419.57	\$17,075.661
Beginning Salary	474	\$9,000	\$79,980	\$17,016.09	\$7,870.638
Valid N (listwise)	474				

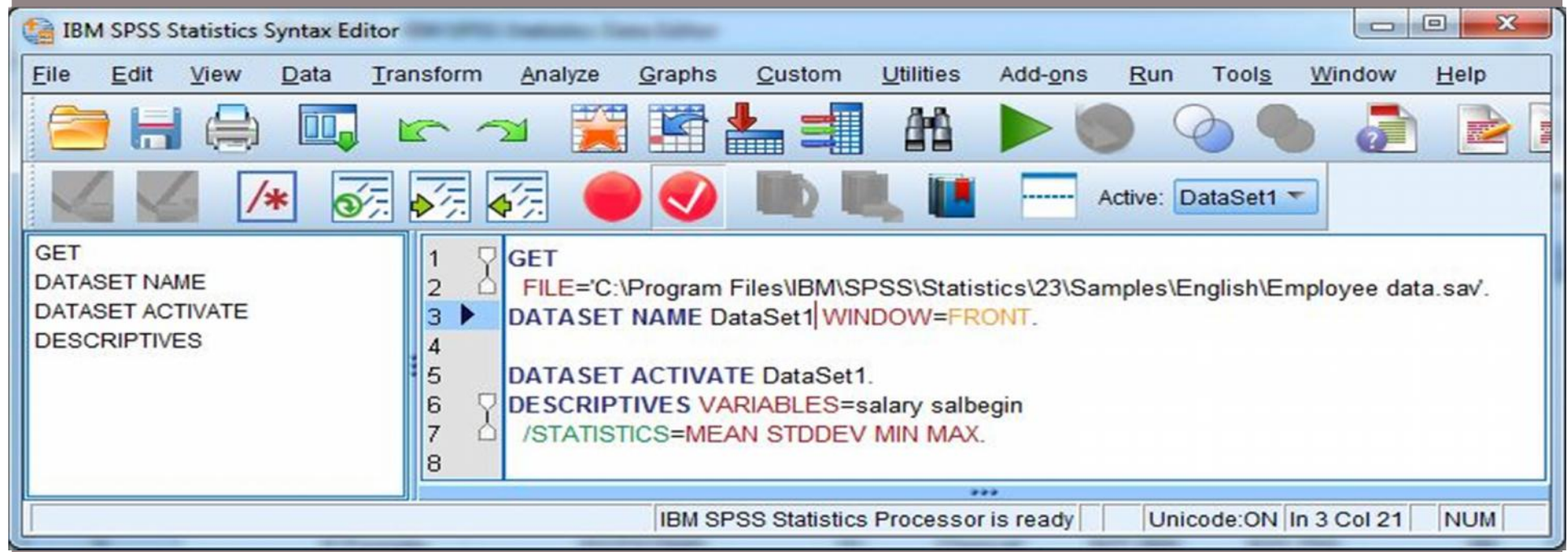
IBM SPSS Statistics Processor is ready | Cases: 100 | Unicode:ON





# The four windows :syntax editor

- Text editor for the syntax composition.
- Extension of the saved file will be “sps”.





# The four windows : Script window

## Script window

provides the opportunity to write full – blown programs ,in  
A BASIC-like languages . Extension of the saved file will be “sbs”

```
Script2
File Edit View Script Debug Analyze Graphs Utilities Window Help
Proc: [declarations]
1 *****
2 Use this template if you want to reformat or change the text of the title,
   corner text, or caption in a selected pivot table.
   *****
Option Explicit

Public s_bolCellsSelected As Boolean

Sub Main
'Declare SPSS object variables
Dim objPivotTable As PivotTable
Dim objItem As ISpssItem

'Declare non-object variables used in this procedure
Dim bolFoundOutputDoc As Boolean
Dim bolPivotSelected As Boolean
```



data view window:

- This sheet is visible when you first open the data editor and this sheet contains the data

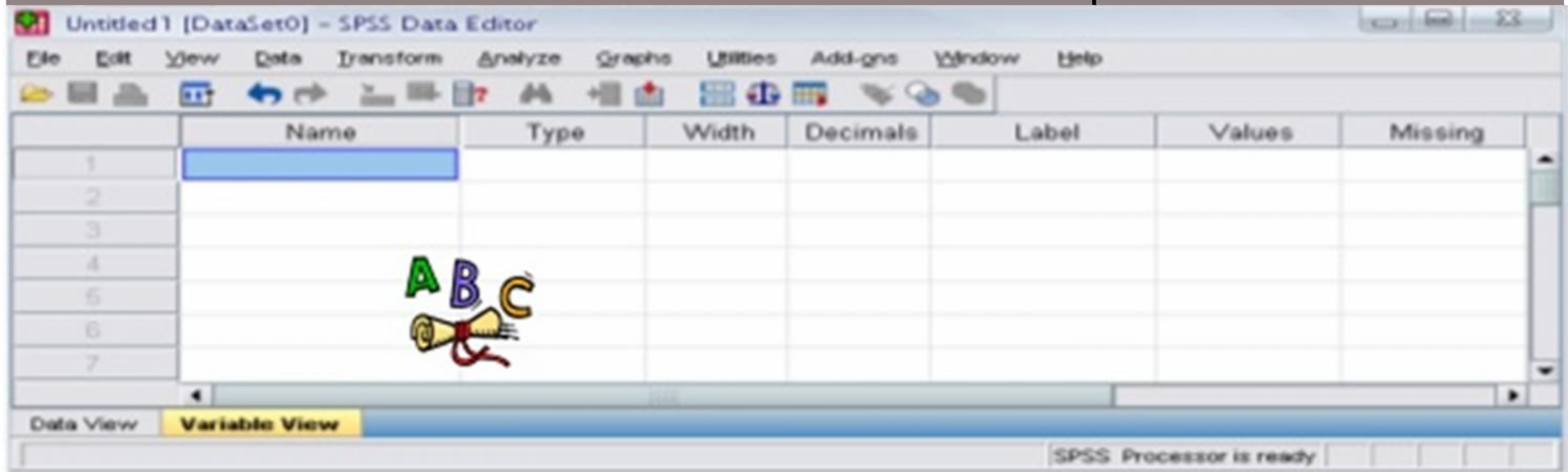






## variable view window:

- This sheet contains information about the data set that is stored with the dataset
- Name
- The first character of the variable name must be alphabetic

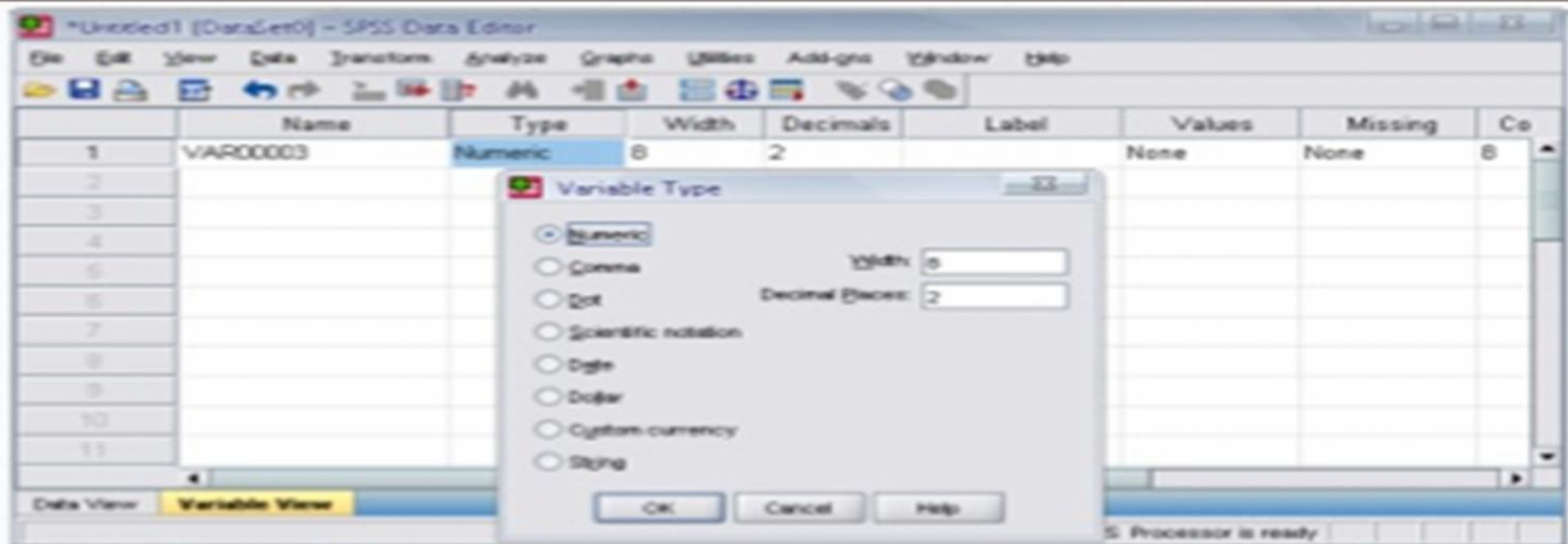






## variable view window: Type

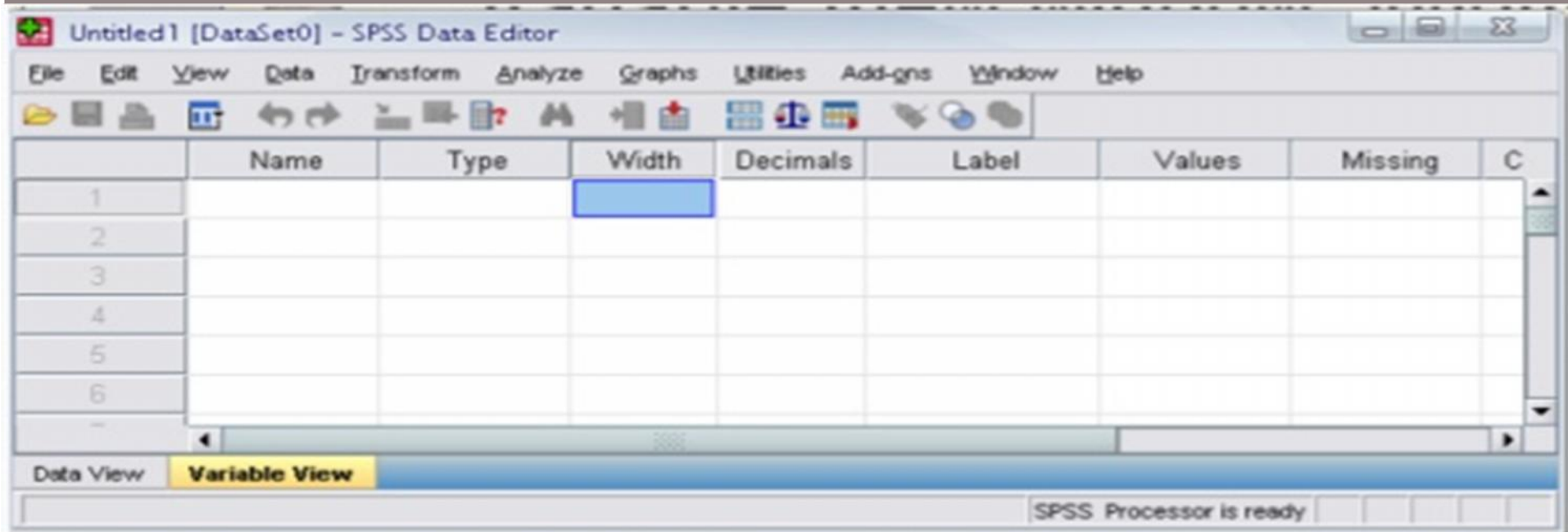
- Type
- click on the “type” box. The two basic types of variables that you will use are numeric and string. this column enables you to specify the type of variable.





## variable view window: width

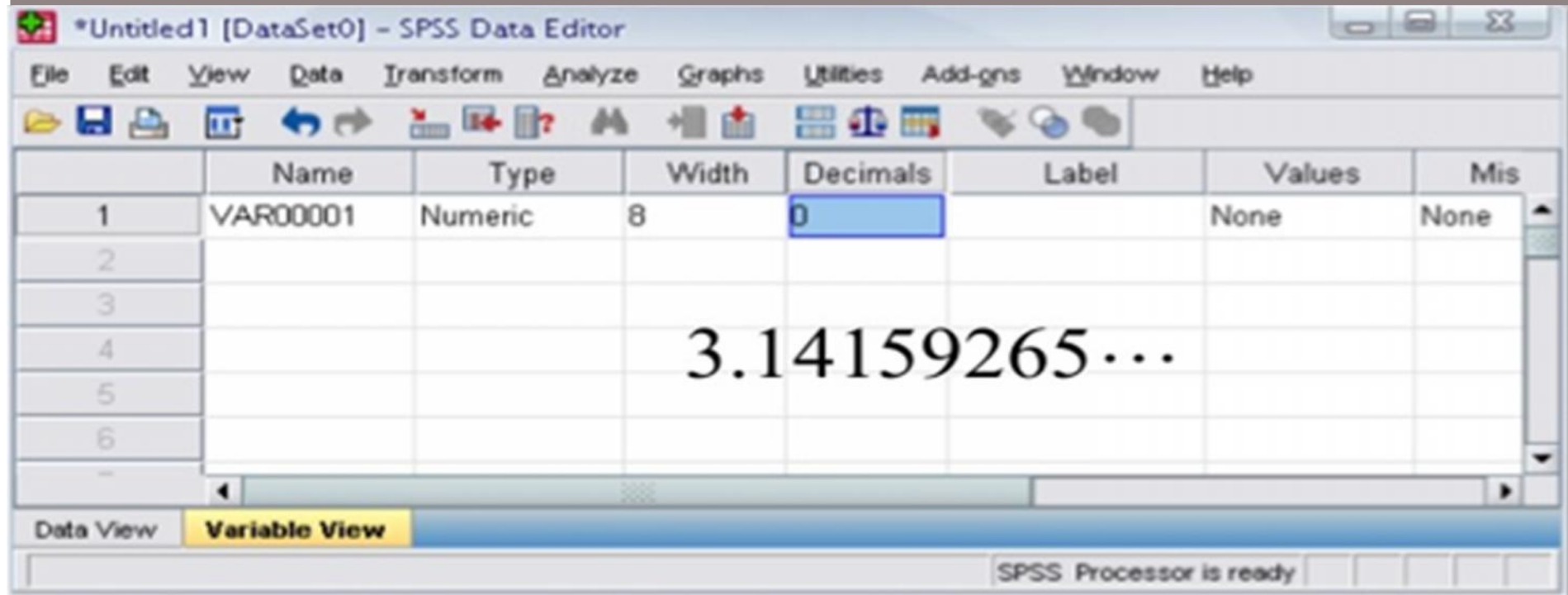
- Width
- allows you to determine the number of characters SPSS will allow to be entered for the variable .





## variable view window: Decimals

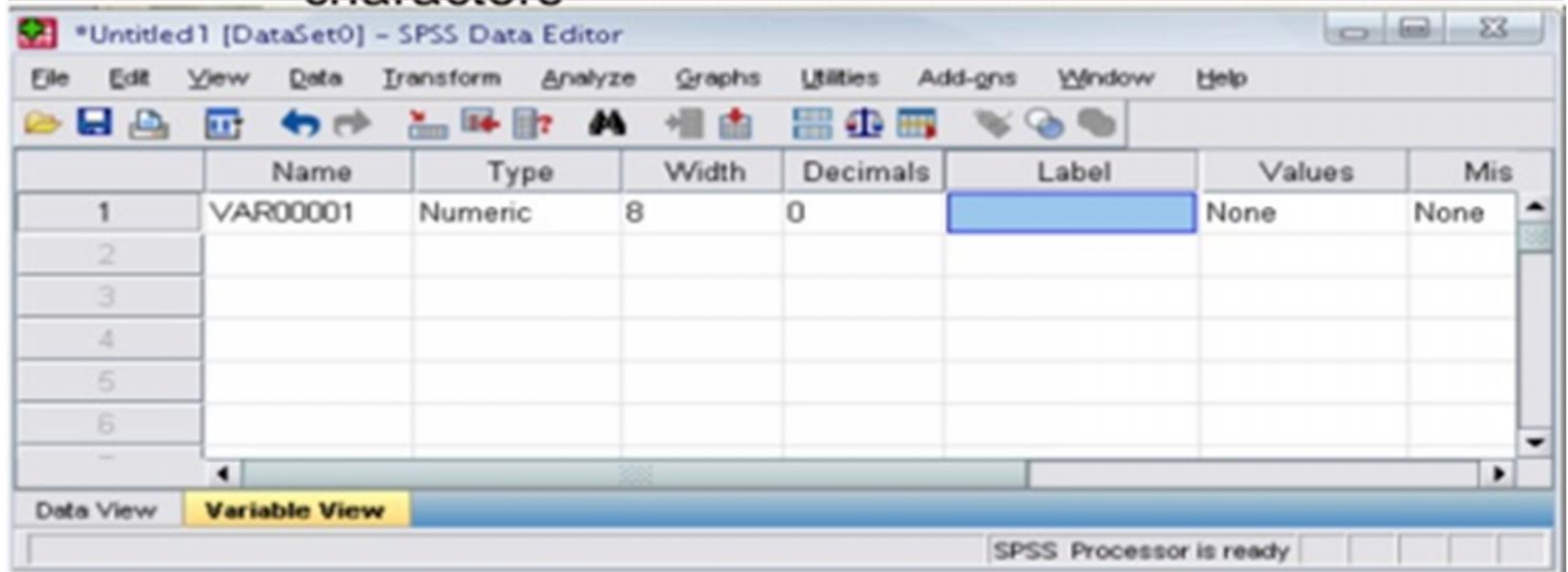
- Number of decimals
- It has to be less than or equal to 16





## Variable View Window: Label

- You can specify the details of the variable
- You can write characters with spaces up to 256 characters

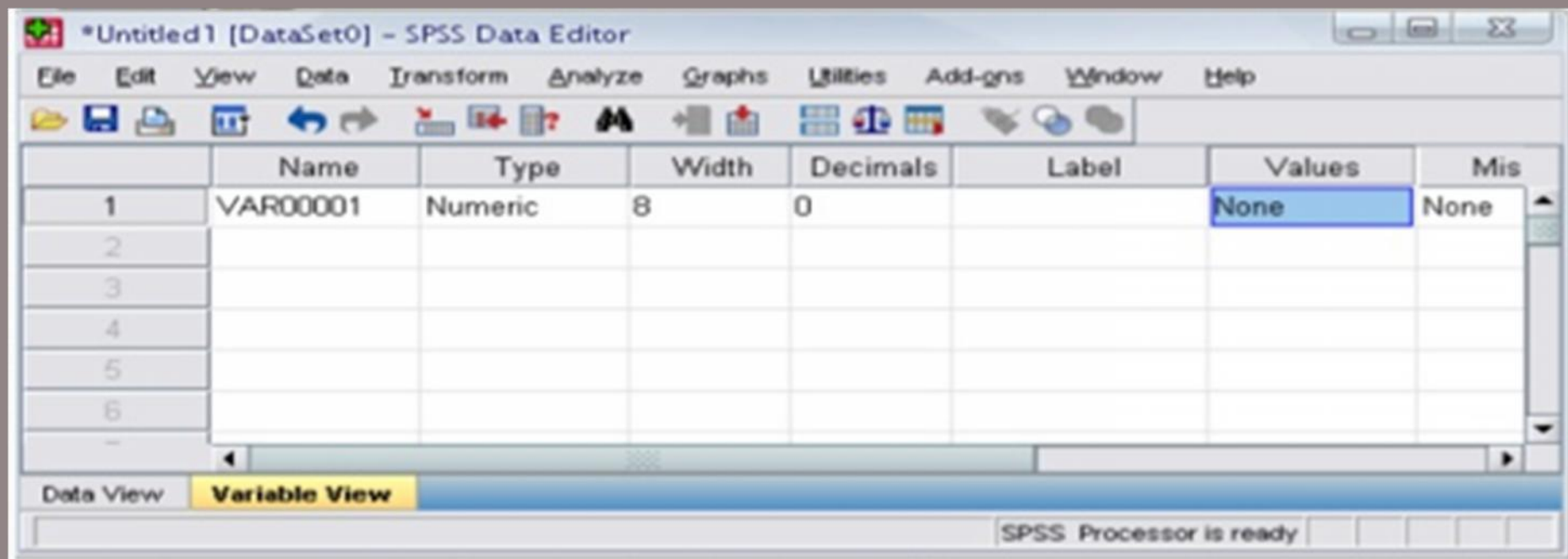






## Variable View Window: Values

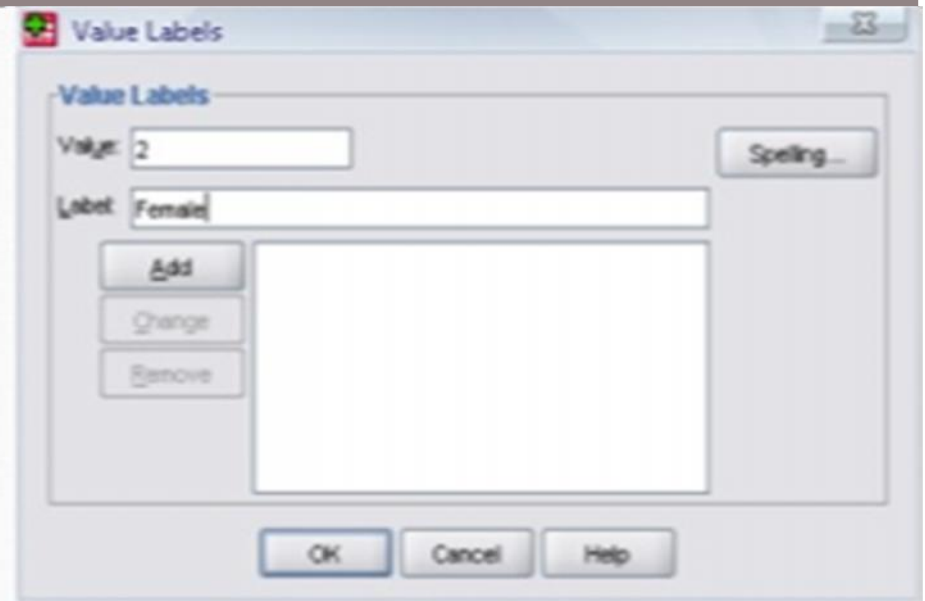
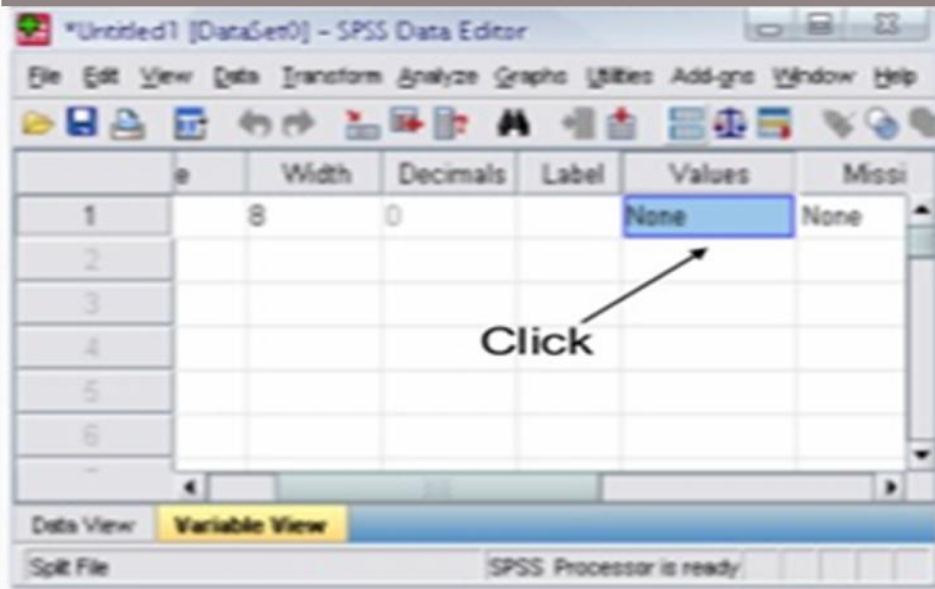
This is used to suggest which numbers represent which categories when the variable represents a category .





## defining The Value Labels :

- Click the cell in the values column as shown below
- For the value ,and the label , you put up to 60 characters.
- After defining the values click ADD and then OK





## Advantages :

- SPSS offers a user friendliness that most packages are only now catching up to. It is popular, and though that is certainly not a reason for choosing a statistical package, many data sets are easily loaded into it and other programs can easily import SPSS files.





## Disadvantages

- For academic use SPSS lags notably behind SAS, R and even perhaps others that are on the more mathematical rather than statistical side for modern data analysis
- Its menu offerings are typically the most basic of an analysis and sometimes lacking even then, and it makes doing an inappropriate analysis very easy.
- It is expensive, sometimes ridiculously so, and even when you do buy you're really only leasing, and its license is definitely not user friendly.
- There are often compatibility issues with prior