Introduction to SPSS

SPSS (Statistical Package for the Social Sciences) is a versatile and responsive program designed to undertake a range of statistical procedures. SPSS software is widely used in a range of disciplines and is available from all computer pools within the University of South Australia.

It's important to note that SPSS is not the only statistical software – there are many others that you may come across if you pursue a career that requires you to work with data. Some of the other more common statistical packages include Stata and SAS (and there are many others). The focus for this session, however, is on SPSS.

Features of SPSS

- The data from any survey collected via Survey Gizmo gets easily exported to SPSS for detailed and good analysis.
- In SPSS, data gets stored in.SAV format. These data mostly comes from surveys. This makes the process of manipulating, analyzing and pulling data very simple.
- SPSS have easy access to data with different variable types. These variable data is easy to understand. SPSS helps researchers to set up model easily because most of the process is automated.
- After getting data in the magic of SPSS starts. There is no end to what we can do with this data.
- SPSS has a unique way to get data from critical data also. Trend analysis, assumptions, and predictive models are some of the characteristics of SPSS.
- SPSS is easy for you to learn, use and apply.
- It helps in to get data management system and editing tools handy.
- SPSS offers you in-depth statistical capabilities for analyzing the exact outcome.

- SPSS helps us to design, plotting, reporting and presentation features for more clarity

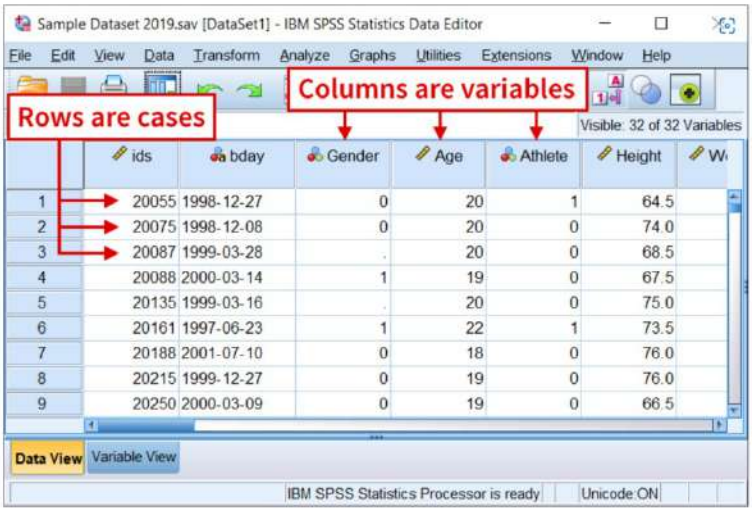
Data View

The data view is structured as rows and columns. By importing a file or adding data manually, we can work with SPSS

When you view data in SPSS, each row in the Data View represents a case, and each column represents a variable.

Cases represent independent observations, experimental units, or subjects. For example, if the data are based on a survey of college students, then each row in the data would represent a specific college student who participated in the study.

Variables are attributes, characteristics, or measurements that describe cases. For example, your data might include information such as each college student's date of birth, gender, or class rank. Each of these pieces of information is a variable that describes each case (college student).



VARIABLE VIEW

You can define information about your variables by accessing the **Variable View** tab (at the bottom of the Data Editor window). The **Variable View** tab displays information about the variables in your data. You can get to the Variable View window in two ways:

- In the Data Editor window, click the Variable View tab at the bottom.

- In the Data Editor window, in the Data View tab, double-click a variable name at the top of the column. This method has the advantage of taking you to the specific variable you clicked.

The **Variable View** tab displays the following information, in columns, about each variable in your data:

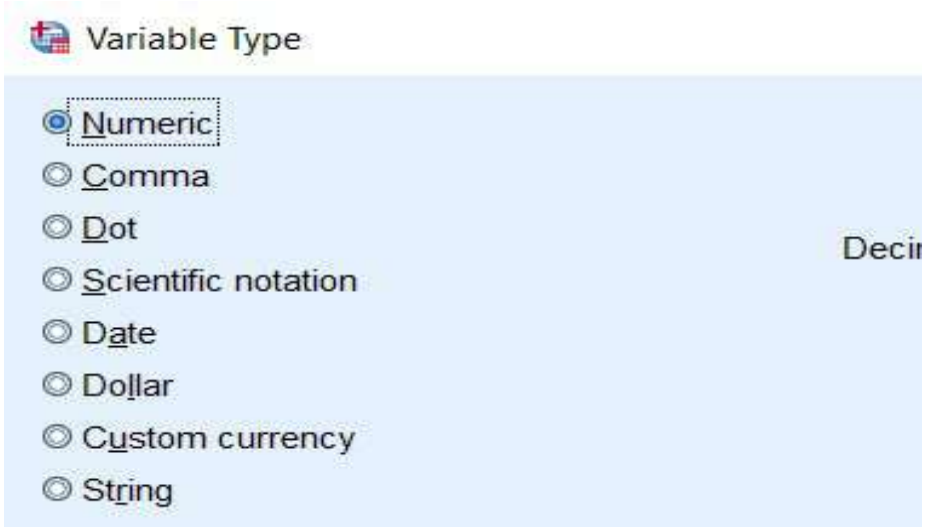
NAME

The name of the variable, which is used to refer to that variable in syntax. Variable names can not contain spaces. Note that when you change the name of a variable, it does not change the data; all values associated with the variable stay the same. Renaming a variable simply changes the name of that variable while leaving everything else the same. For example, we may want to rename a variable called *Sex* to *Gender*.

To change a variable's name, double-click on the name of the variable that you wish to re-name. Type your new variable name.

TYPE

The type of variable (e.g. numeric, string, etc.). (See the **Variable Types tutorial** for descriptions of the variable types in SPSS.)



To change a variable's type, click inside the cell corresponding to the “Type” column for that variable. A square "..." button will appear; click on it to open the Variable Type window. Click the option that best matches the type of variable. Click **OK**.

WIDTH

The number of digits displayed for numerical values or the length of a string variable.

To set a variable's width, click inside the cell corresponding to the “Width” column for that variable. Then click the "up" or "down" arrow icons to increase or decrease the number width.

DECIMALS

The number of digits to display after a decimal point for values of that variable. Does not apply to string variables. Note that this changes how the numbers are displayed, but does not change the values in the dataset.

To specify the number of decimal places for a numeric variable, click inside the cell corresponding to the “Decimals” column for that variable. Then click the “up” or “down” arrow icons to increase or decrease the number of decimal places.

Example: If you specify that values should have two decimal points, they will display as 1.00, 2.00, 3.00, and so on.

LABEL

A brief but descriptive definition or display name for the variable. When defined, a variable's label will appear in the output in place of its name.

Example: The variable *expgradate* might be described by the label “Expected date of college graduation".

VALUES

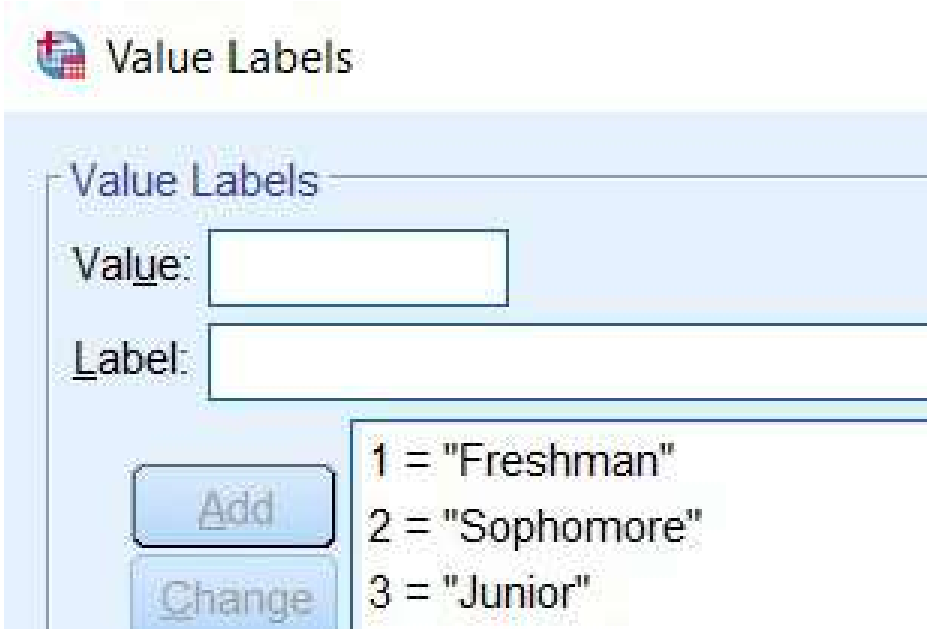
For coded categorical variables, the value label(s) that should be associated with each category abbreviation. Value labels are useful primarily for categorical (i.e., nominal or ordinal) variables, especially if they have been recorded as codes (e.g., 1, 2, 3). It is strongly suggested that you give each value a label so that you (and anyone looking at your data or results) understands what each value represents.

When value labels are defined, the labels will display in the output instead of the original codes.Note that defining value labels only affects the labels associated with each value, and does not change the recorded values themselves.

Example: In the sample dataset, the variable Rank represents the student's class rank. The values 1, 2, 3, 4 represent the categories Freshman, Sophomore, Junior, and Senior, respectively. Let's define the category labels for the *Rank* variable in the sample data.

Under the column “Values,” click the cell that corresponds to the variable whose values you wish to label. If the values are currently undefined, the cell will say “None.” Click the square “…” button. The Value Labels window appears.

Type the first possible value (1) for your variable in the **Value** field. In the **Label** field type the label exactly as you want it to display (e.g., "Freshman"). Click **Add** when you are finished defining the value and label. Your variable value and label will appear in the center box. Repeat these steps for each possible value for your variable. When all of the labels have been defined, the Value Labels window should look like this:



Click **OK** at the bottom of the window.

If you wish to change or remove a value and label that you have added to the center dialog box, do the following:

- To change a specific value or label, highlight the value/label in the center text box in the Value Labels window. Now the selected value/label will be highlighted yellow. Make changes to the selected value or label as needed. Click **Change**. The changes will be applied to the value/label you highlighted.
- To remove a specific value/label, highlight the value/label in the center text box. Click **Remove**. The selected value/label will be removed from the center text box.

MISSING

User-defined data values (or ranges of values) should be treated as missing. Note that this property does not alter or eliminate SPSS's default missing value code for numeric variables ("."). This column merely allows the user to specify up to three unique missing value codes for the given variable; or, to specify a range of numbers to treat as missing, plus one additional unique missing value code.

To set user-defined missing value codes, click inside the cell corresponding to the "Missing" column for that variable. A square button will appear; click on it.

Click the option that best matches how you wish to define missing data and enter any associated values, then click **OK** at the bottom of the window.

Note that you may enter numbers or letters as discrete missing value codes in the "discrete missing values" boxes.

Caution: If you have a dataset with string variables, blank cells are not automatically recognized as missing values. In order for blanks to be recognized as missing values, you can either:

- add a space character (`Spacebar` key) as a discrete missing value code (either in the Variable View or using syntax), or
- use the **Automatic Recode** procedure to recode the string variable into a labeled, numeric categorical variable with blanks recoded into a special missing value code.

The latter option works well if there are a limited number of unique string values, but is a poor option if there are many unique variations in the strings (e.g. capitalization, spelling, spacing).

COLUMNS

The width of each column in the Data View spreadsheet. Note that this is not the same as the number of digits displayed for each value. This simply refers to the width of the actual column in the spreadsheet.

To set a variable's column width, click inside the cell corresponding to the “Columns” column for that variable. Then click the “up” or “down” arrow icons to increase or decrease the column width.

ALIGN

The alignment of content in the cells of the SPSS Data View spreadsheet. Options include left-justified, right-justified, or center-justified.

To set the alignment for a variable, click inside the cell corresponding to the "Align" column for that variable. Then use the drop-down menu to select your preferred alignment: Left, Right, or Center.

MEASURE

The level of measurement for the variable (e.g., nominal, ordinal, or scale).

Some procedures in SPSS treat categorical and scale variables differently. **By default, variables with numeric responses are automatically detected as “Scale” variables.** If the numeric responses actually represent categories, you must change the specified measurement level to the appropriate setting.

To define a variable's measurement level, click inside the cell corresponding to the “Measure” column for that variable. Then click the drop-down arrow to select the level of measurement for that variable: Scale, Ordinal, or Nominal.

Scale of Measurement in SPSS

Measurement levels refer to different types of variables that imply how to analyze them.

Different types of measurements are

1. nominal variables;
2. ordinal variables;
3. interval variables;
4. ratio variables.

Nominal Variables

A nominal variable is a variable whose values don't have an undisputable order. So let's say we asked respondents in which **country** they live and the answers are

- the Netherlands;
- Belgium;

Ordinal Variables

Ordinal variables hold values that have an undisputable order but no fixed unit of measurement. Some fixed units of measurement are meters, people, dollars or seconds. However, there's *no* fixed unit of measurement for a question like**"how did you like your food?"**with the following answer categories:

Interval Variables

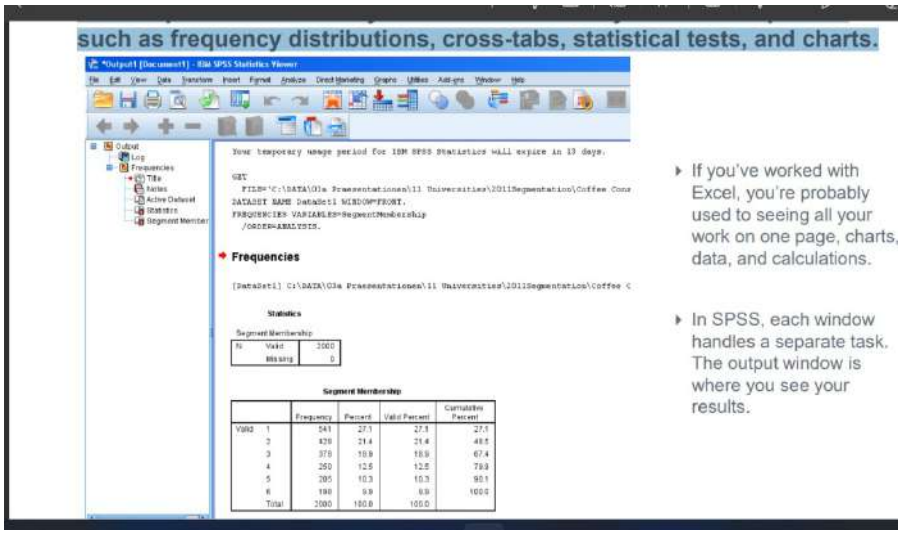
Interval variables have a fixed unit of measurement but zero does not mean "nothing". One of the rare examples is "in which **year** did it happen?" Ignoring leap days, years are a fixed unit of measurement for *time*. However, the year zero doesn't mean "nothing" with regard to time.
As a consequence,

Ratio Variables

Ratio variables have a fixed unit of measurement and zero really means "nothing."An example is **weight** in kilos. A kilo is a fixed unit of measurement because it always represents the exact same weight. Also, zero kilos corresponds to "nothing" with regard to weight. As a consequence,

Output Viewer Window

The Output View is where you see the results of your various queries such as frequency distributions, cross-tabs, statistical tests, and charts.



- iewer windows can be saved for later use; just use File > Save to write the content of a window to a file and late use File > Open > Output to view it again.
- You can open several *Viewer Windows* at the same, use File > New > Output to do so (Copy/Paste > Copy between windows is easy). When you have two or more Viewer Windows open, the new output will go to the *last* window opened. If you want to direct output to another of the windows, you should click on  which appears on all Viewer Windows where the output is NOT directed to; you can also use Utilities > Designate Window to do so.
- Printing output
    - On the print dialog, choose to print All visible output or Selected output. "Visible" means all visible frames in the window, i.e. you can simply hide frames that you do not want to be printed. *Make sure to understand that "selected" means the selected frame(s), i.e. if you the current selection is only a title (in the example above "Graph" is a title frame) you will get only a single word printed...*
    - As tables can be become quite big, they might print on several pages which is not always what you want. Before printing it is highly recommended to use File > Print Preview
    - The Insert menu has options for inserting and removing page breaks and add page titles.

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- The full content of a viewer window (File > Export or individual frames (Export from the context menu) can be exported into various formats (html, PDF, Word (RTF), Power Point, Excel, etc.)

SYNTAX EDITOR WINDOW

SPSS *syntax* is a programming language that is unique to SPSS. It allows you to write commands that run SPSS procedures, rather than using the graphical user interface.

Syntax allows users to perform tasks that would be too tedious or difficult to do using the drop-down menus. This is the case when you are re-running the same analysis many times, or doing complex transformations on data. Syntax also provides a record of how you transformed and analyzed your data, and allows you to instantly reproduce those steps at any time.

How do you import data into SPSS?

To open your Excel file in SPSS:

File, Open, Data, from the SPSS menu.

Select type of file you want to open,Excel *. xls *. xlsx, *. xlsm .

Select file name.

Click 'Read variable names' if the first row of the spreadsheat contains column headings.

Click Open.

RECODING VARIABLE

Sometimes you will want to transform a variable by combining some of its categories or values together. For example, you may want to change a continuous variable into an ordinal categorical variable, or you may want to merge the categories of a nominal variable. In SPSS, this type of transform is called *recoding*.

In SPSS, there are three basic options for recoding variables:

1. Recode into Different Variables
2. Recode into Same Variables

Each of these options allows you to re-categorize an existing variable. Recode into Different Variables syntax create a new variable without modifying the original variable, while Recode into Same Variables will permanently overwrite the original variable. In general, it is best to recode a variable into a *different* variable so that you never alter the original data and can easily access the original data if you need to make different changes later on.

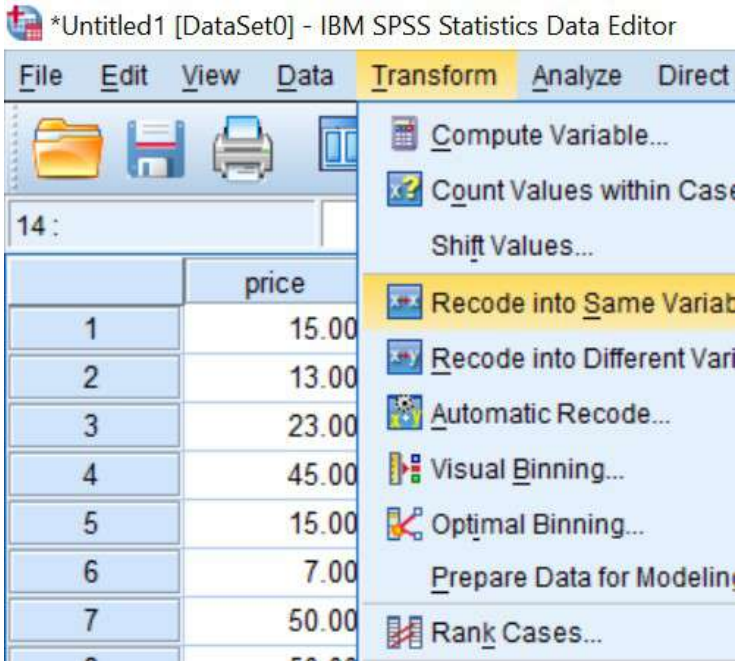
Recode in to Same Variable

Recoding into a same variable transforms an original variable into same variable. That is, the changes overwrite the original variable; they are instead applied to a copy of the original variable under a new name.

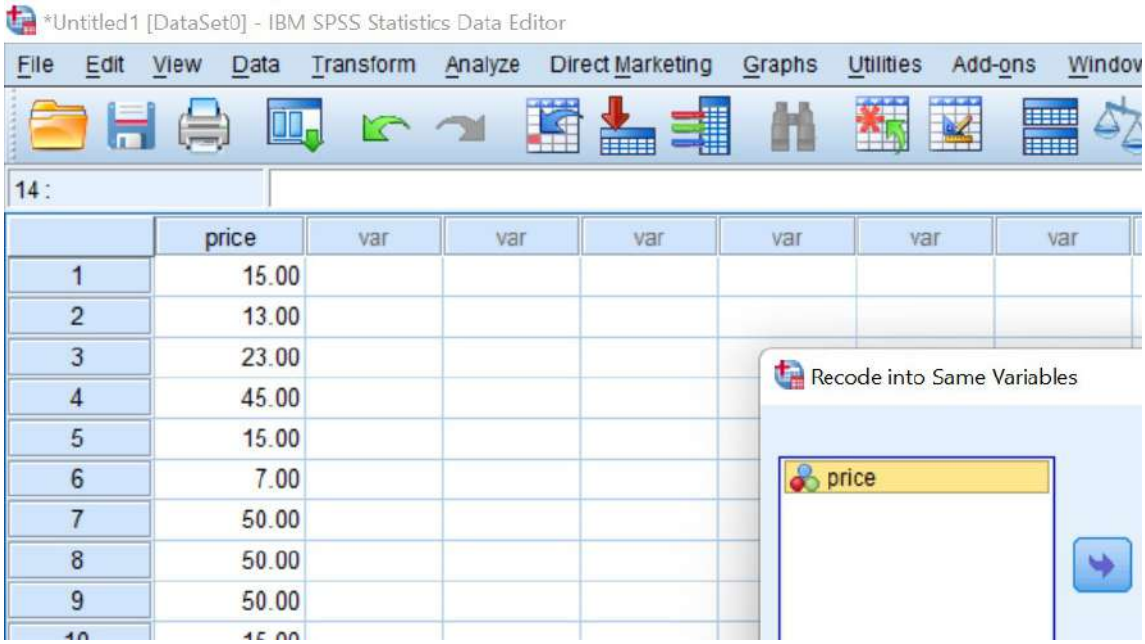
Recoding into the same variable (**Transform > Recode into Same Variables**) works the same way as described above, except for that any changes made will permanently alter the original variable. That is, the original values will be replaced by the recoded value

In general, it is good practice *not* to recode into the same variable because it overwrites the original variable. If you ever needed to use the variable in its original form (or wanted to double-check your steps), that information would be lost.

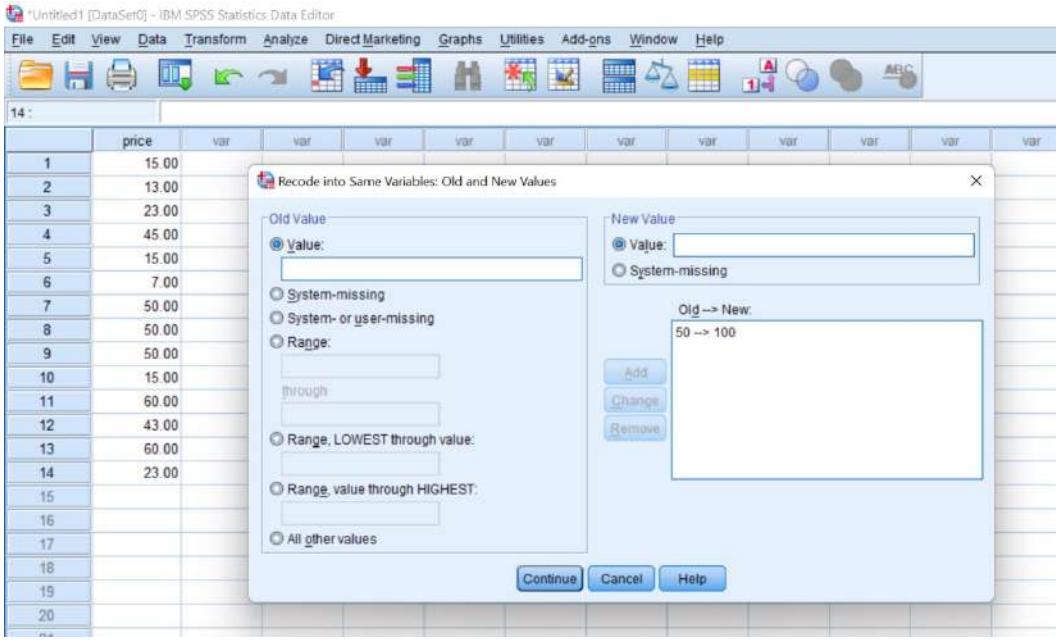
To recode into different variables, click **Transform > Recode into same Variables**.



The Recode into same Variables window will appear



The left column lists all of the variables in your dataset. Select the variable you wish to recode by clicking it. Click the arrow in the center to move the selected variable to the center text box

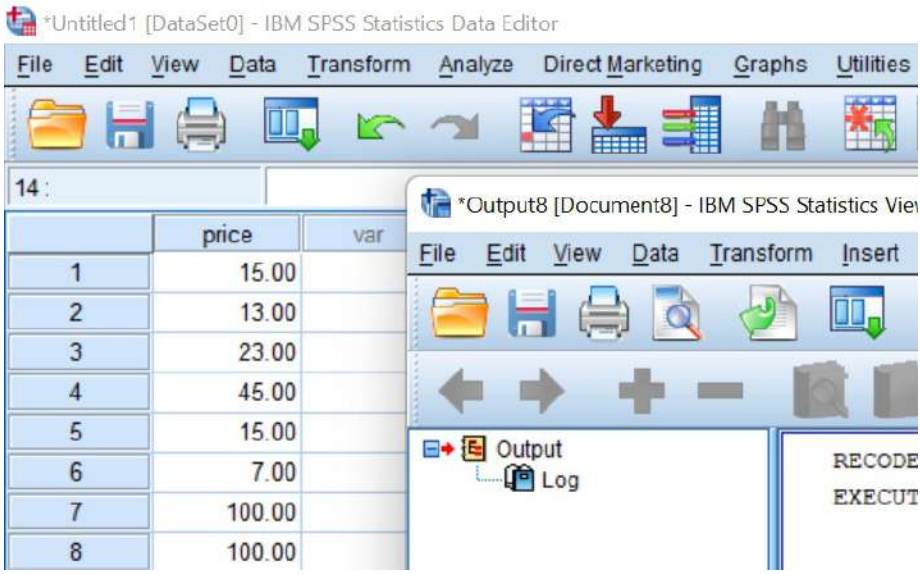


Old Value: Specify the type of value you wish to recode (e.g., a specific value, missing data, or a range of values) and the specific value to be recoded (e.g., a value of "1" or a range of "1-5").

- **Value:** Enter a specific numeric code representing an existing category.
- **System-missing:** Applies to any system-missing values (.)
- **System- or user-missing:** Applies to any system-missing values (.) or special missing value codes defined by the user in the Variable View window

- **Range:** For use with ordered categories or continuous measurements. Enter the lower and upper boundaries that should be coded. The recoded category will include both endpoints, so data values that are exactly equal to the boundaries will be included in that category.
- **Range, LOWEST through value:** For use with ordered categories or continuous measurements. Recode all values less than or equal to some number.
- **Range, value through HIGHEST:** For use with ordered categories or continuous measurements. Recode all values greater than or equal to some number.

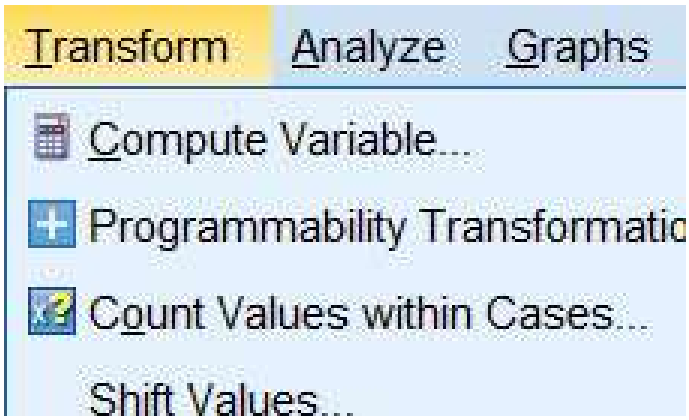
Click on continue button



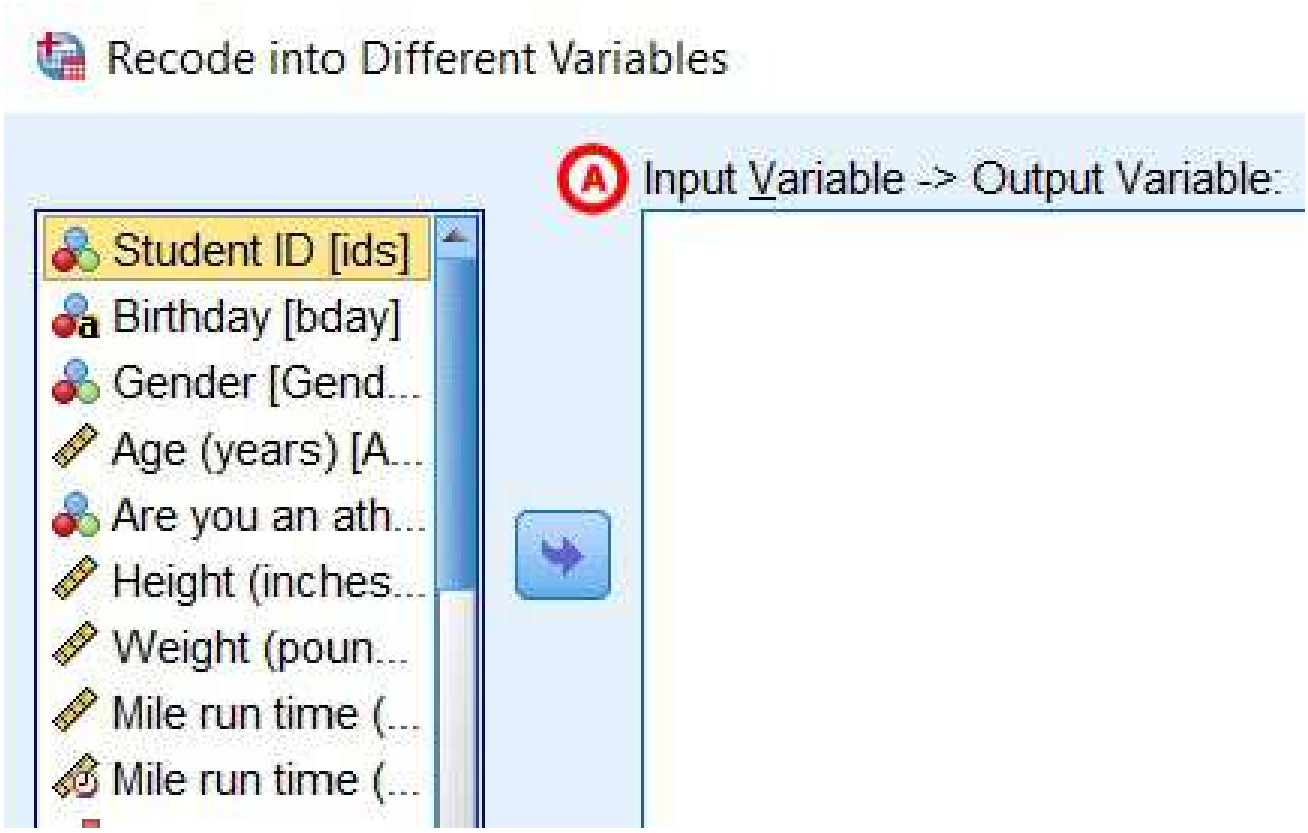
Recode into Different Variables

Recoding into a different variable transforms an original variable into a new variable. That is, the changes do not overwrite the original variable; they are instead applied to a copy of the original variable under a new name.

To recode into different variables, click **Transform > Recode into Different Variables**.



The Recode into Different Variables window will appear.



The left column lists all of the variables in your dataset. Select the variable you wish to recode by clicking it. Click the arrow in the center to move the selected variable to the center text box, (B).

A **Input Variable -> Output Variable:** The center text box lists the variable(s) you have selected to recode, as well as the name your new variable(s) will have after the recode. You will define the new name in (C).

B **Output Variable:** Define the name and label for your recoded variable(s) by typing them in the text fields. Once you are finished, click **Change**. Now the center text box,

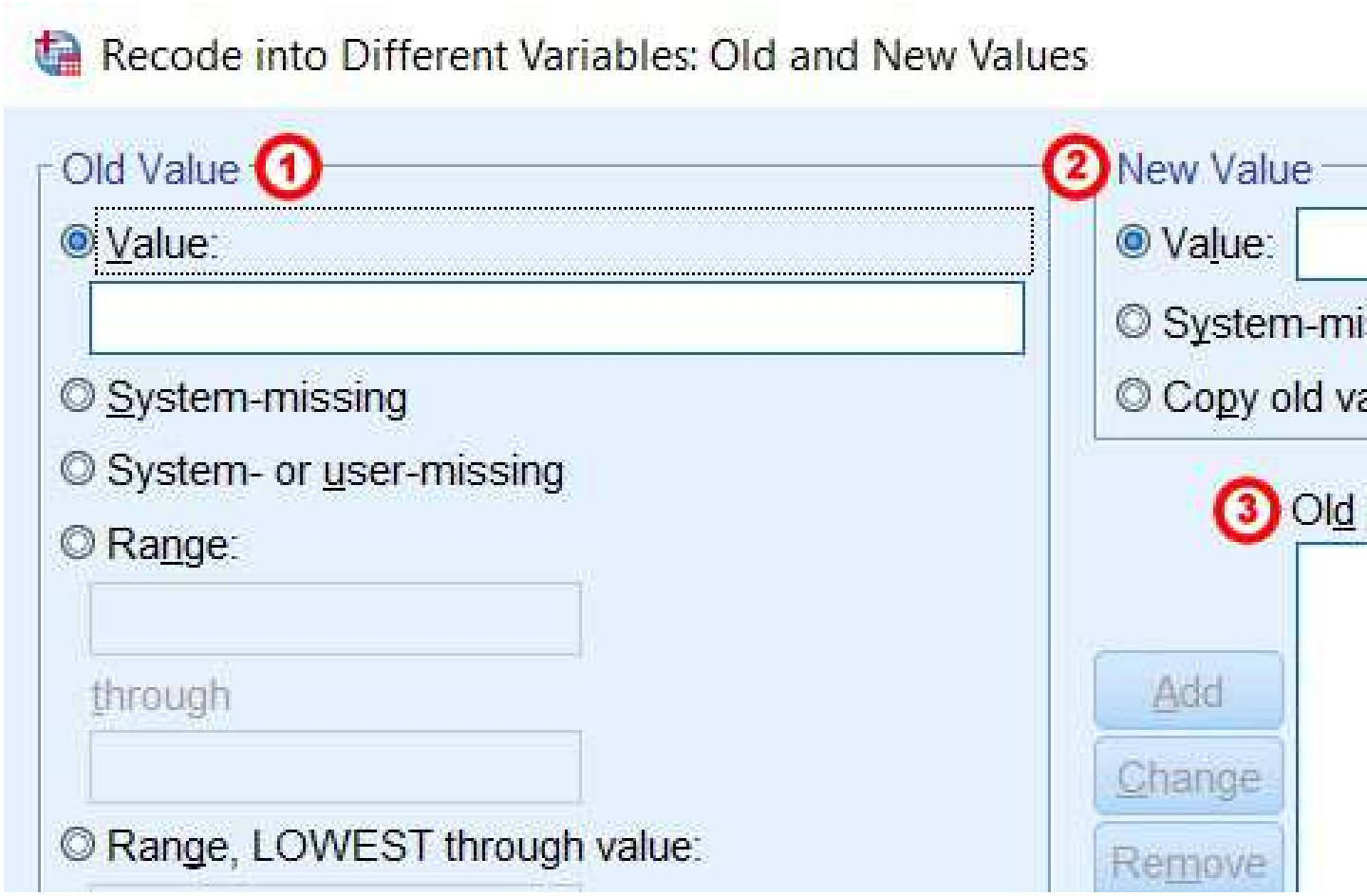
(B), will display both the name of the original variable as well as the name for the new variable (e.g., “Height --> Height_categ”).

C **Old and New Variables:** Click the **Old and New Values** to specify how you wish to recode the values for the selected variable.

D **If:** The **If** option allows you to specify the conditions under which your recode will be applied. (We discuss the **If** option in more detail later in this tutorial.)

OLD AND NEW VALUES

Once you click **Old and New Values**, a new window where you will specify how to transform the values will appear.



1 **Old Value:** Specify the type of value you wish to recode (e.g., a specific value, missing data, or a range of values) and the specific value to be recoded (e.g., a value of “1” or a range of “1-5”).

When recoding variables, always handle the missing values first! The most common recoding errors happen when you don't tell SPSS explicitly what to do with missing

values: SPSS may recode missing values into one of the new valid categories. This is especially true if using the "Lowest thru", "thru Highest", or "Range - through" options.

- **Value:** Enter a specific numeric code representing an existing category.
- **System-missing:** Applies to any system-missing values (.)
- **System- or user-missing:** Applies to any system-missing values (.) or special missing value codes defined by the user in the Variable View window
- **Range:** For use with ordered categories or continuous measurements. Enter the lower and upper boundaries that should be coded. The recoded category will include both endpoints, so data values that are exactly equal to the boundaries will be included in that category.
- **Range, LOWEST through value:** For use with ordered categories or continuous measurements. Recode all values less than or equal to some number.
- **Range, value through HIGHEST:** For use with ordered categories or continuous measurements. Recode all values greater than or equal to some number.
- **All other values:** Applies to any value not explicitly accounted for by the previous recoding rules. If using this setting, it should be applied last.

2 New Value: Specify the new value for your variable (i.e., a specific numeric code such as “2,” system-missing, or copy old values).

3 Old -> New: Once you have selected the old and new values for your selected variable in (1) and (2), click **Add** in area (3), **Old-->New**. The recode that you have specified now appears in the text field. If you need to change one of the recodes that you have added to the **Old-->New** area section, simply click on the one you wish to change and make changes in (1) and (2) as necessary.

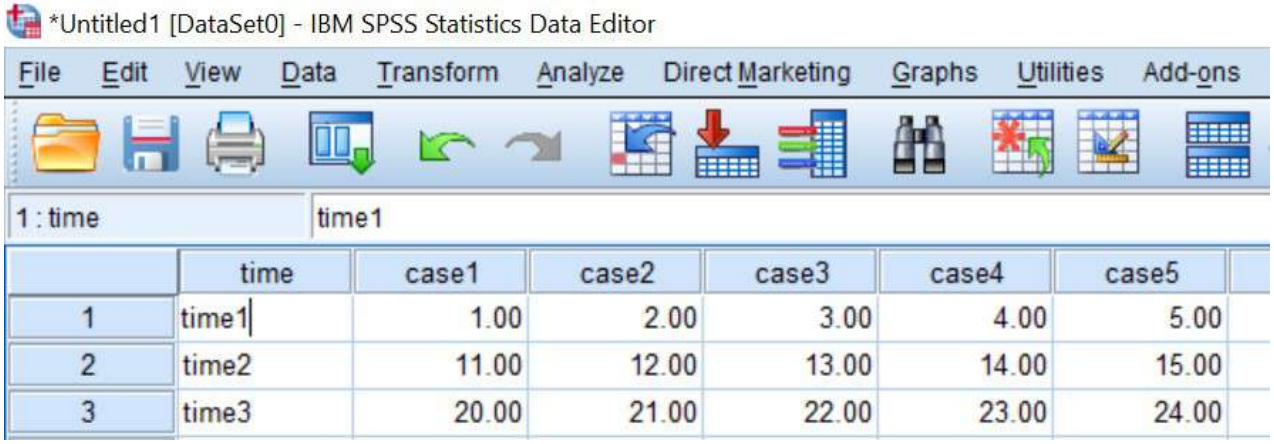
You will need to repeat these steps for each value that you wish to recode. Once you have specified all the transformations that you wish to make for the selected variable, click the “Continue” button.

Transpose of data

Transpose creates a new data file in which the rows and columns in the original data file are transposed so that cases (rows) become variables and variables (columns) become cases. Transpose automatically creates new variable names and displays a list of the new variable names.

Procedure to transport data in spss

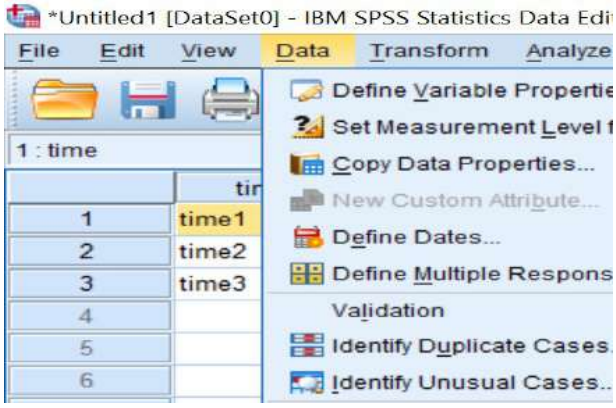
Step1. Create a data set like this

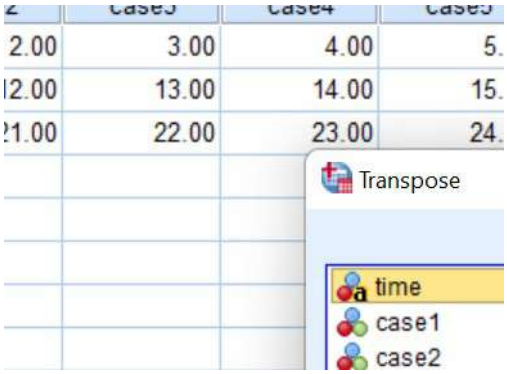


	time	case1	case2	case3	case4	case5
1	time1	1.00	2.00	3.00	4.00	5.00
2	time2	11.00	12.00	13.00	14.00	15.00
3	time3	20.00	21.00	22.00	23.00	24.00

Step 2

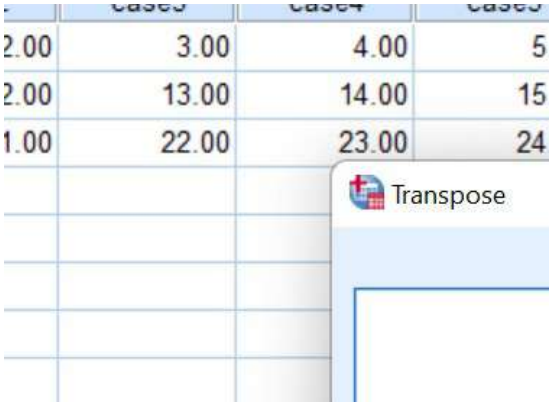
Click on data menu then click on transporse



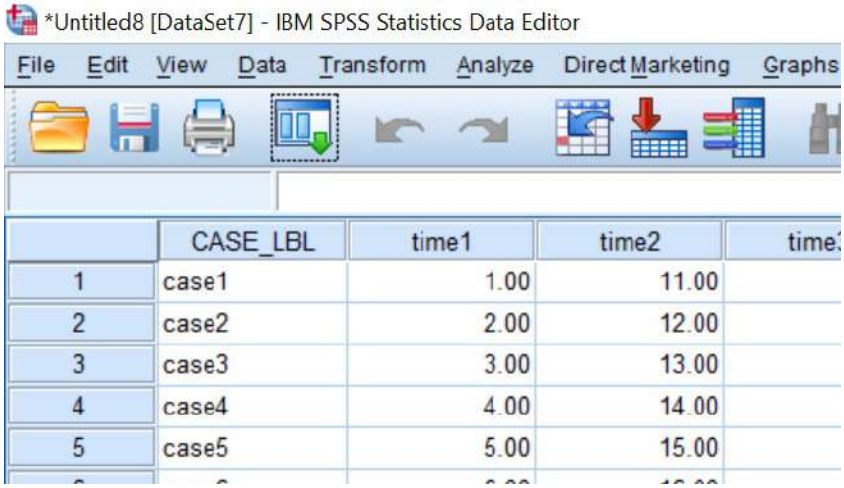


Step 3.

Change variable in to right side



Step 4 then click OK button



Inserting or Deleting Single Variables

Sometimes you may need to add new variables or delete existing variables from your dataset. For example, perhaps you are in the process of creating a new dataset and you must add many new variables to your growing dataset. Alternatively, perhaps you decide that some variables are not very useful to your study and you decide to delete them from the dataset. Or, similarly, perhaps you are creating a smaller dataset from a very large dataset in order to make the dataset more manageable for a research project that will only use a subset of the existing variables in the larger dataset.

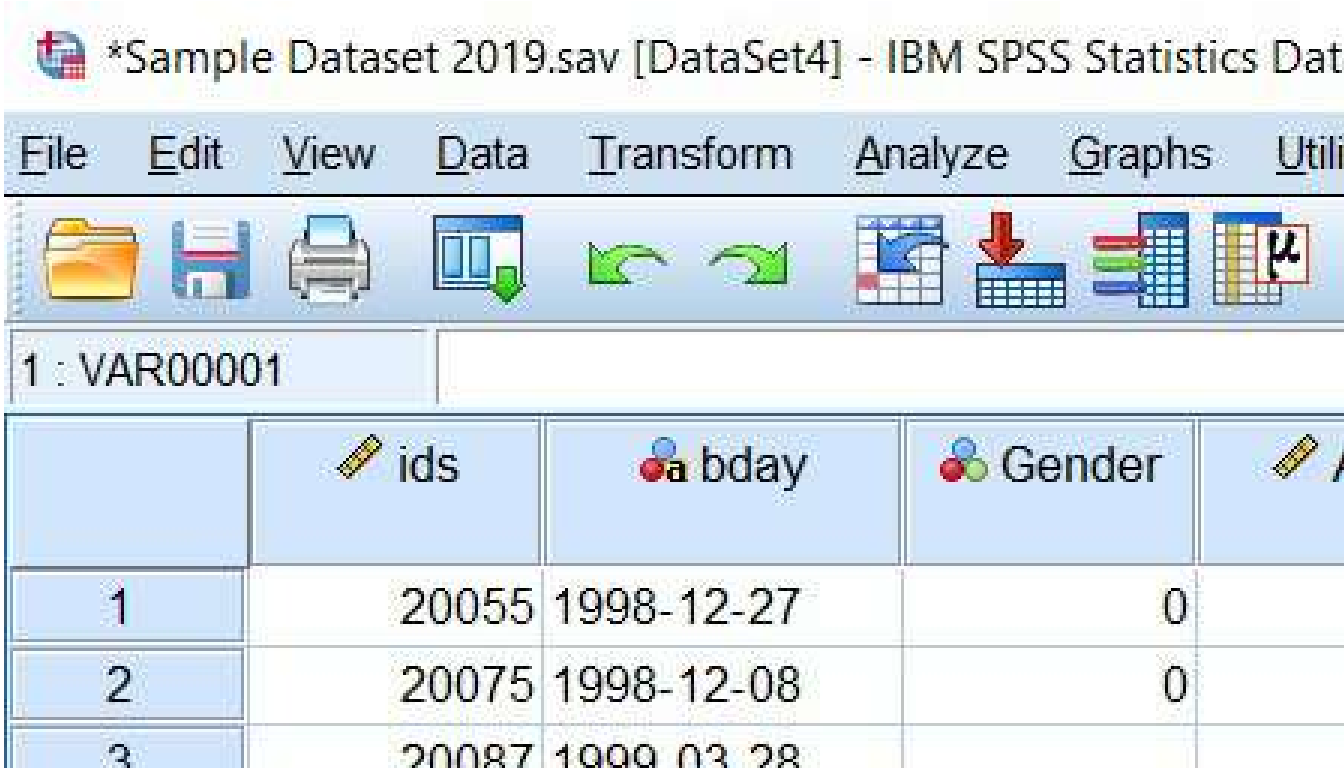
INSERTING A VARIABLE

To insert a new variable into a dataset:

1. In the Data View window, click the name of the column to the right of of where you want your new variable to be inserted.
2. You can now insert a variable in several ways:
    - Click **Edit > Insert Variable**;
    - Right-click an existing variable name and click **Insert Variable**; or

- Click the **Insert Variable** icon ( ).

A new, blank column will appear to the left of the column or cell you selected.



New variables will be given a generic name (e.g. VAR00001). You can enter a new name for the variable on the Variable View tab. You can quick-jump to the Variable View screen by double-clicking on the generic variable name at the top of the column. Once in the Variable View, under the column "Name," type a new name for the variable name you wish to change. You should also define the variable's other properties (type, label, values, etc.) at this time.

DELETING A VARIABLE

To delete an existing variable from a dataset:

1. In the **Data View** tab, click the column name (variable) that you wish to delete. This will highlight the variable column.
2. Press `Delete` on your keyboard, or right-click on the selected variable and click "Clear." The variable and associated values will be removed.

Alternatively, you can delete a variable through the *Variable View* window:

1. Click on the row number corresponding to the variable you wish to delete. This will highlight the row.

2. Press `Delete` on your keyboard, or right-click on the row number corresponding to the variable you wish to delete and click "Clear".

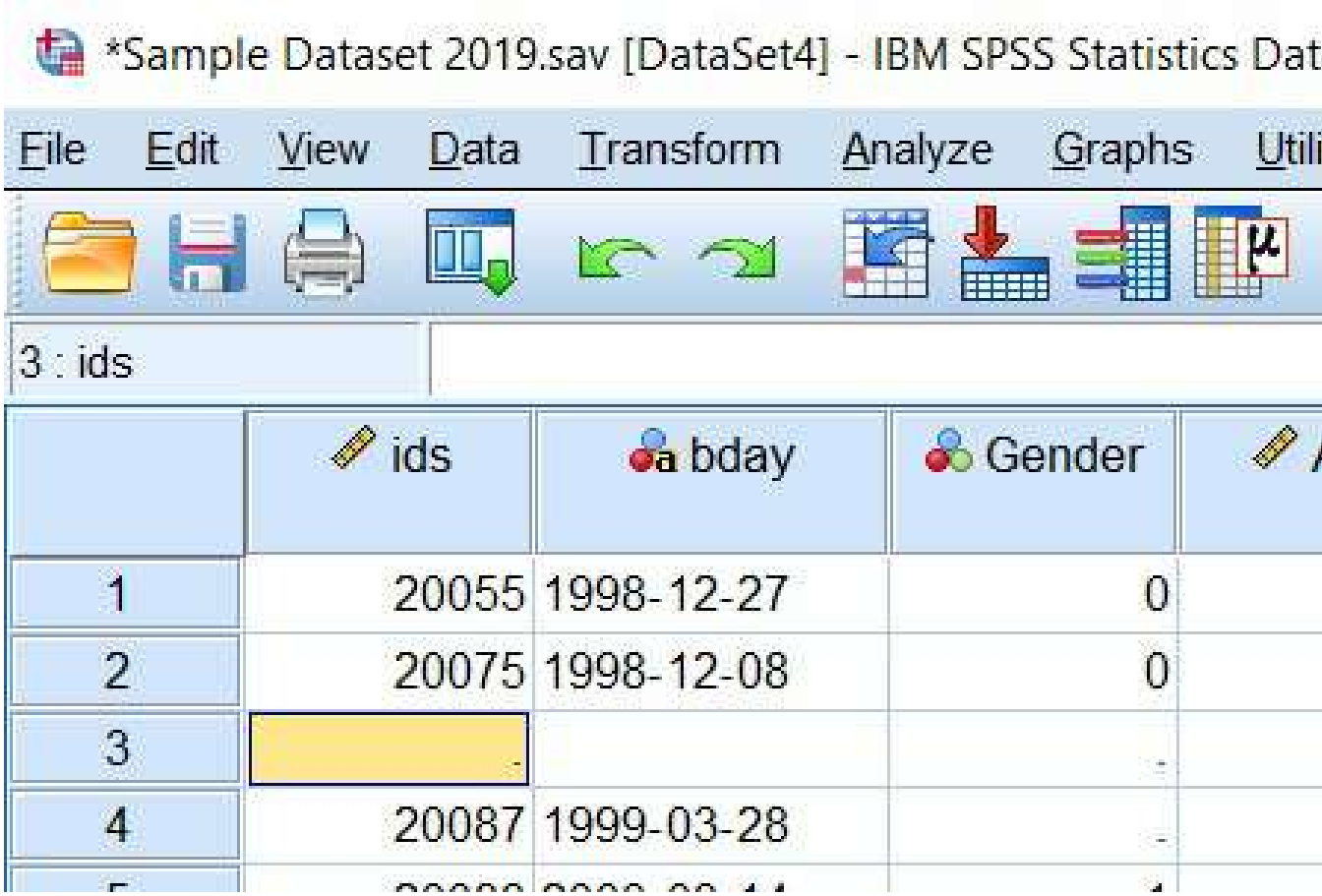
Inserting or Deleting Single Cases

Sometimes you may need to add new cases or delete existing cases from your dataset. For example, perhaps you notice that one observation in your data was accidentally left out of the dataset. In that situation, you would refer to the original data collection materials and enter the missing case into the dataset (as well as the associated values for each variable in the dataset). Alternatively, you may realize that you have accidentally entered the same case in your dataset more than once and need to remove the extra case.

INSERTING A CASE

To insert a new case into a dataset:

1. In Data View, click a row number or individual cell below where you want your new row to be inserted.
2. You can insert a case in several ways:
    - Click **Edit > Insert Cases**;
    - Right-click on a row and select **Insert Cases** from the menu; or
    - Click the **Insert Cases** icon ().
3. A new, blank row will appear above the row or cell you selected. Values for each existing variable in your dataset will be missing (indicated by either a “.” or a blank cell) for your newly created case since you have not yet entered this information.



4. Type in the values for each variable in the new case.

DELETING A CASE

To delete an existing case from a dataset:

1. In the Data View tab, click the case number (row) that you wish to delete. This will highlight the row for the case you selected.
2. Press `Delete` on your keyboard, or right-click on the case number and select "Clear". This will remove the entire row from the dataset.

Merging two files in SPSS

we can merge two files in spss in two ways. They are
Add cases and Add variable

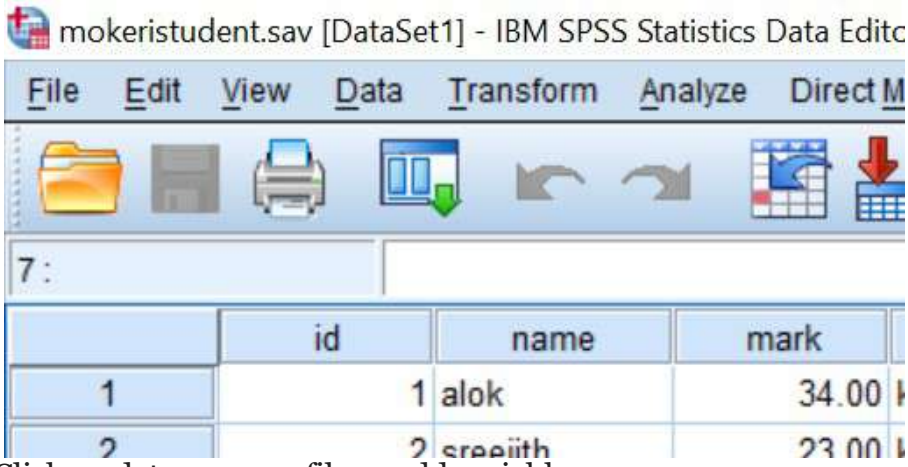
Add variables

In these method combining files with joining variables to target files

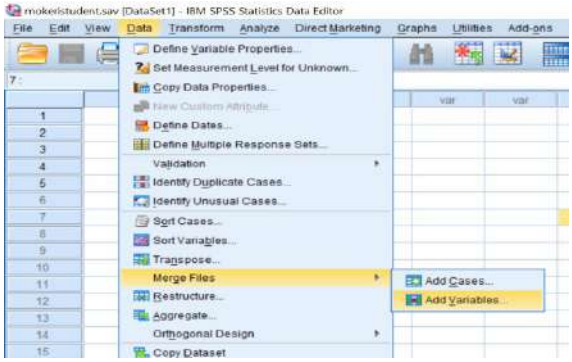
Steps

1. Create two files here first file is mokeristudents and second file is details

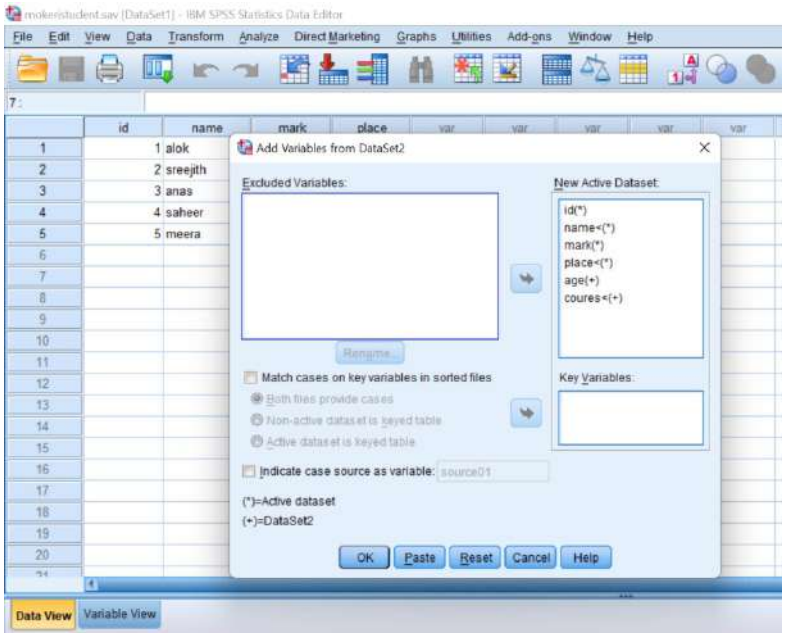
First open the first file mokeristudents



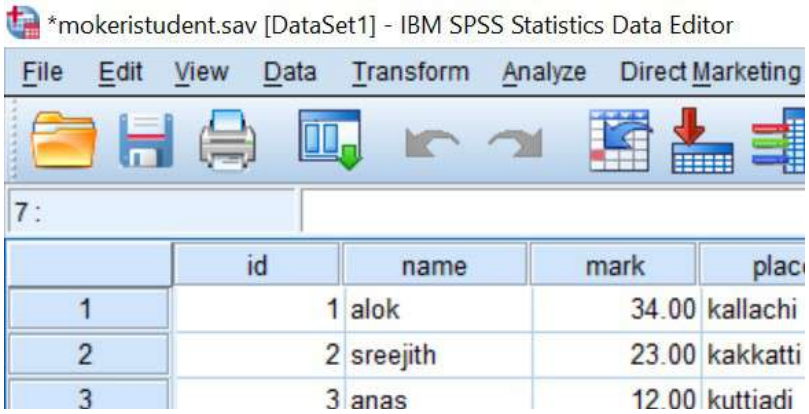
2. Click on data->merge files->add variables



3. Then browse the second file details and click continue then ok



Then file is merged

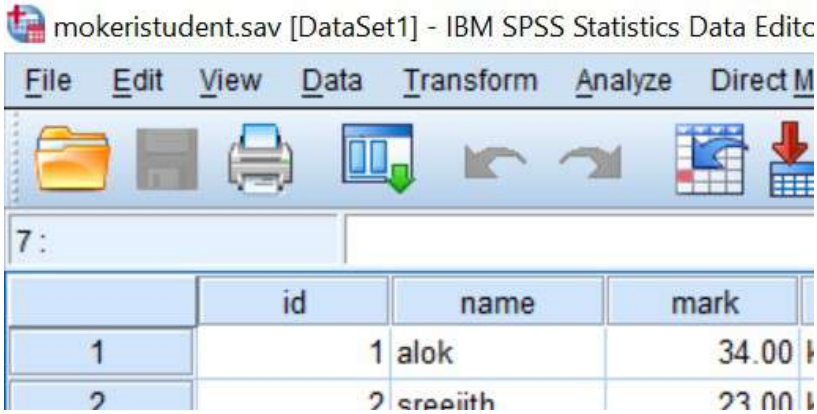


Add cases method

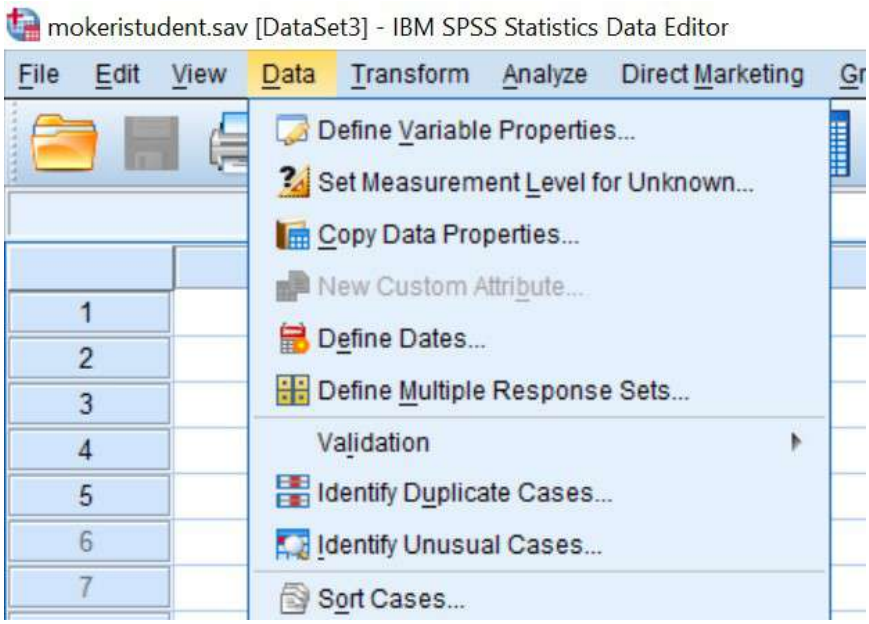
In these method combining files with same field with additional rows

Create two files here first file is mokeristudents and second file is nadapuramstudents

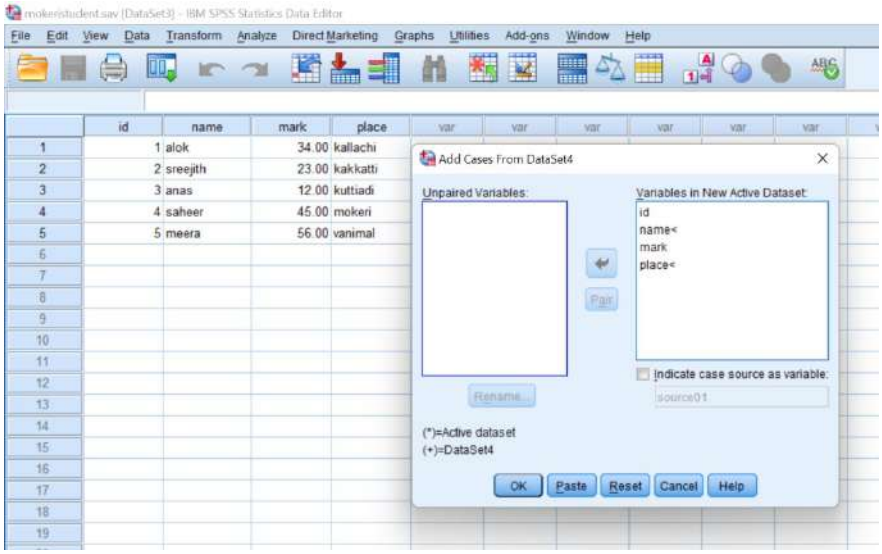
1. First open the first file mokeristudents



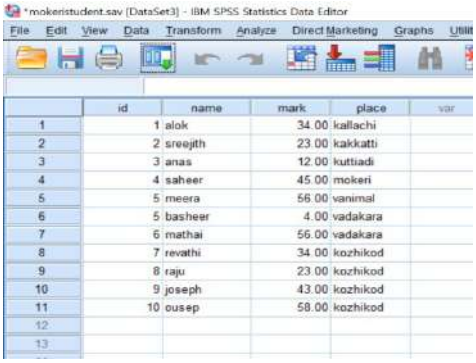
2. Click on data->merge files->add cases



3. Then browse the second file nadapuramstudnets and click continue then ok



4. **Then click ok**



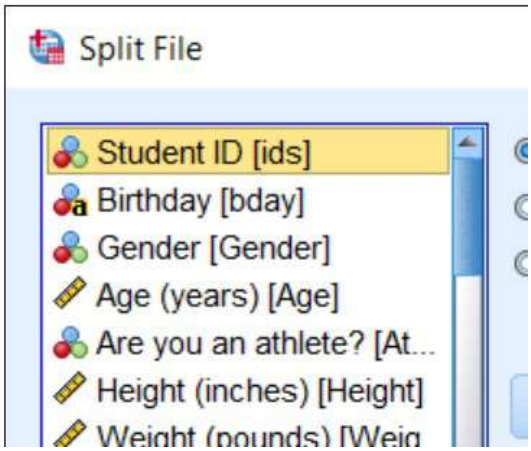
Split file

Split file allows to temporarily divide a data file into subgroups, which share one or more common characteristics. These groups are then be analyzed seperately .

When analyzing data, it is sometimes useful to temporarily "group" or "split" your data in order to compare results across different subsets. This can be useful when you want to compare frequency distributions or descriptive statistics with respect to the categories of some variable (e.g., Gender) - especially if you want separate tables of results for each group.

To split your dataset, click **Data > Split File**.

The Split File window will appear. By default, th
indicated by **Analyze all cases, do not create gro**



You can choose one of two ways to split the data:

1. Compare groups
2. Organize output by groups

For both splitting methods, there are two considerations to be made:

- The splitting variable(s) should be nominal or ordinal categorical. SPSS will not stop you from using a continuous variable as a splitting variable, but it is a bad idea to try to attempt this; SPSS will see each unique numeric value as a distinct category.
- In order to split the file, SPSS requires that the data be sorted with respect to the splitting variable. By default, **Sort the file by grouping variables** is selected.

Example

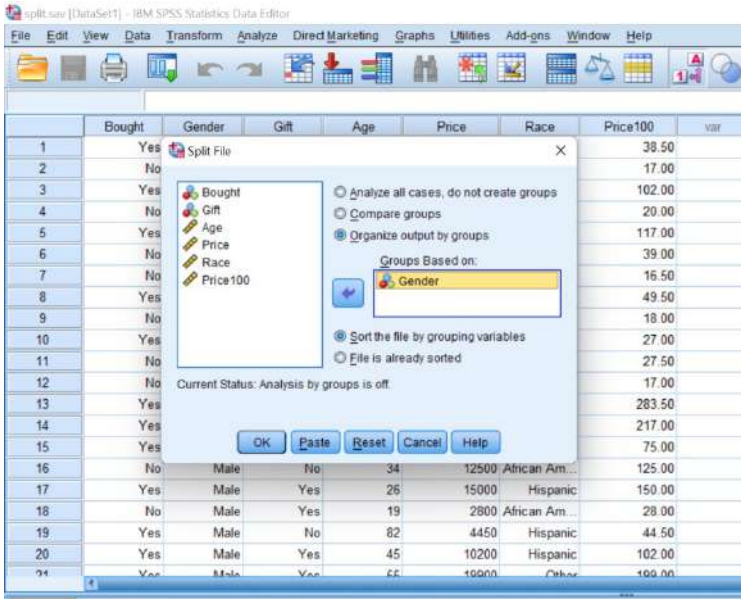
Create a file

split.sav [DataSet1] - IBM SPSS Statistics Data Editor

File Edit View Data Transform Analyze Direct Marketing Graphs Utilities Add-o

	Bought	Gender	Gift	Age	Price	Ra
1	Yes	Female	Yes	54	3850	Africa
2	No	Female	No	44	1700	
3	Yes	Female	Yes	65	10200	
4	No	Female	No	43	2000	Africa
5	Yes	Female	No	33	11700	Africa
6	No	Female	No	27	3900	
7	No	Female	No	39	1650	
8	Yes	Female	No	26	4950	
9	No	Female	Yes	28	1800	H
10	Yes	Female	Yes	54	2700	
11	No	Female	No	63	2750	
12	No	Female	No	46	1700	Africa
13	Yes	Female	Yes	54	28350	

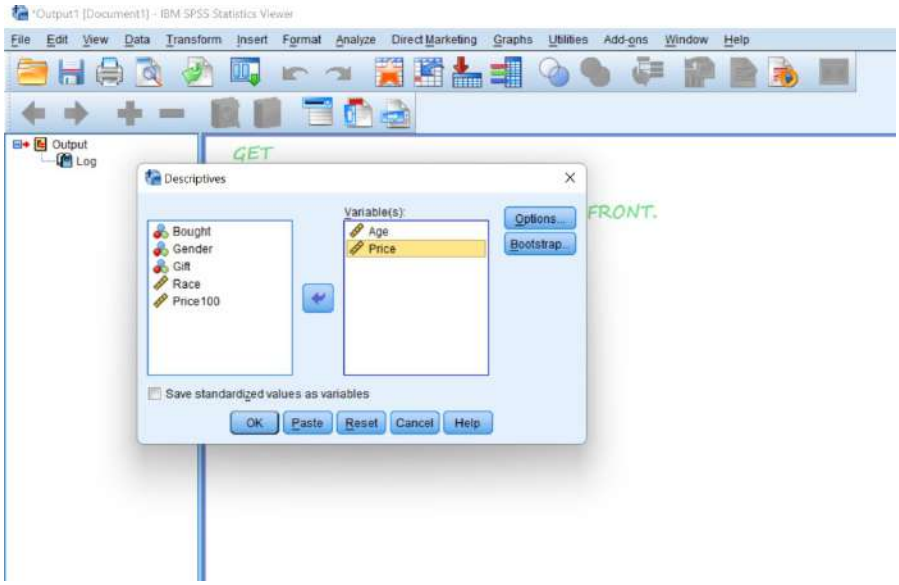
Click on Data->split file



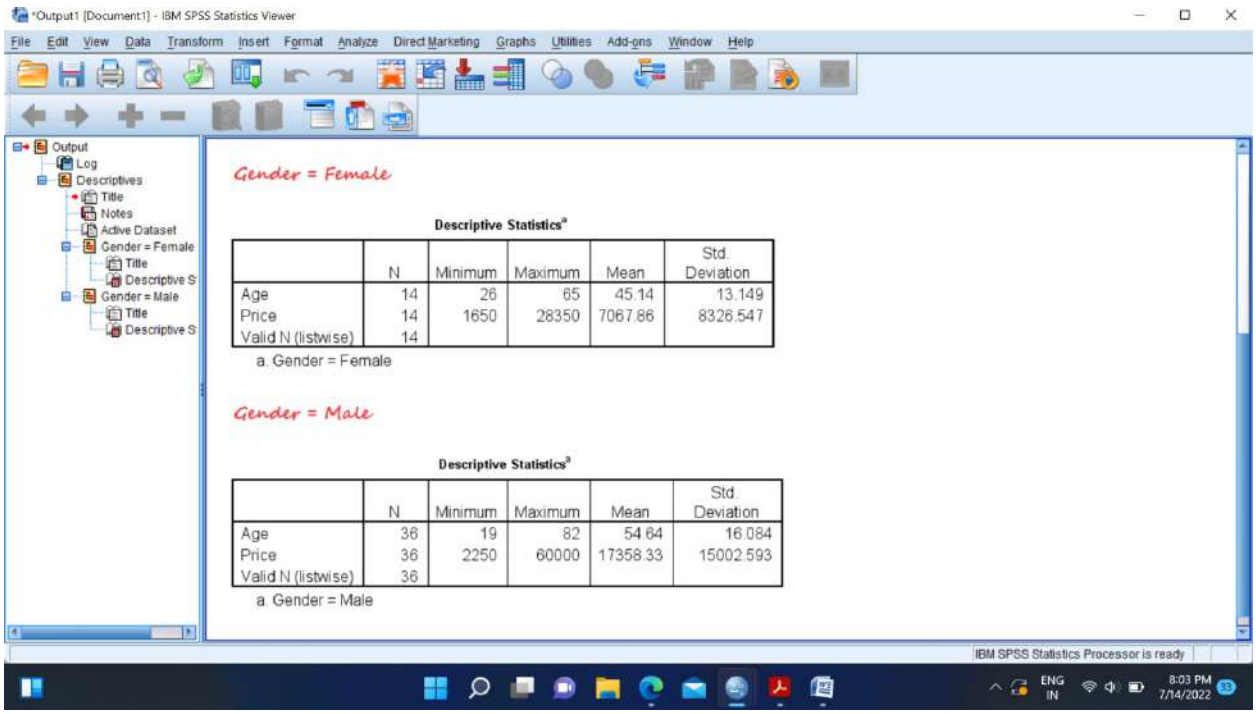
We split according to the gender variable use above options

Then click ok

Then take analyze-> descriptive statistics->descriptive



Use above case like this and click ok



Select Cases

Select Cases provides several methods for selecting a subgroup of cases based on criteria that include variables and complex expressions. You can also select a random sample of cases. The criteria used to define a subgroup can include: Variable values and ranges. Date and time ranges.

To select cases for inclusion into analysis call up Data > Select Cases

Several options are offered:

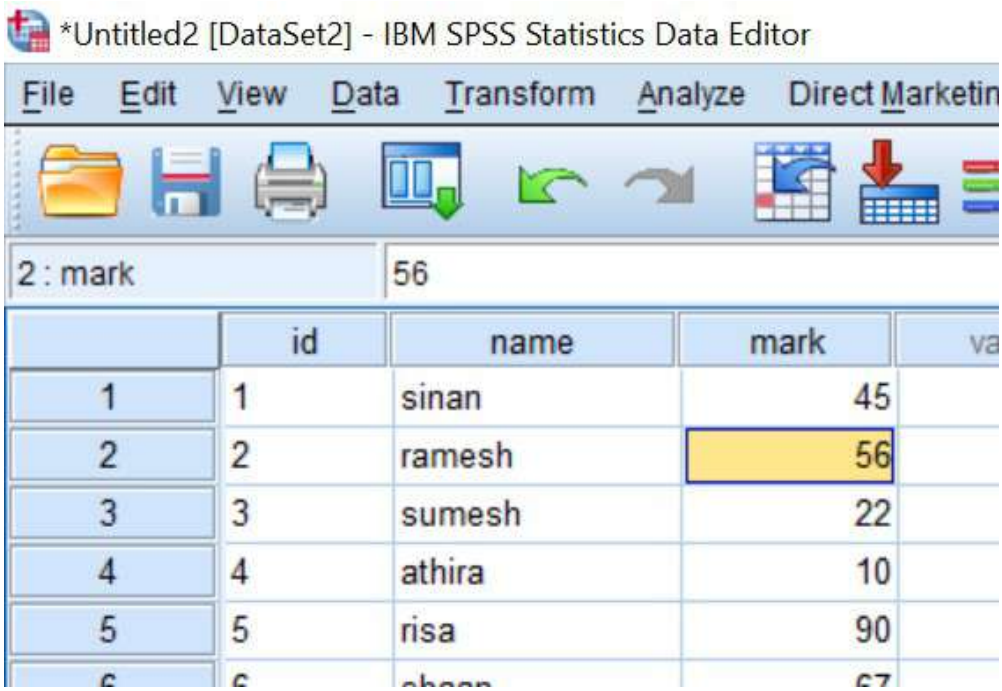
- All Cases (default initial setting) Use it to remove a filter you have defined.
- If condition is satisfied: selects cases that satisfy a condition (logical expression) you specify after selecting the If button. This is the most important option; see further explanations below.
- Random Sample of Cases case selection based on a random sample. The Sample button lets you specify e.g. the percentage of cases to select. [This corresponds to the SAMPLE command]
- Based on time or case range Mainly useful with time series data. Select a specific period or analysis.
- Use filter variable Selection based on a filter variable: A dummy variable with 0's and 1's, where values of 0 are excluded and values of 1 included. [This corresponds to the FILTER command.

Towards the bottom you will find an Output box

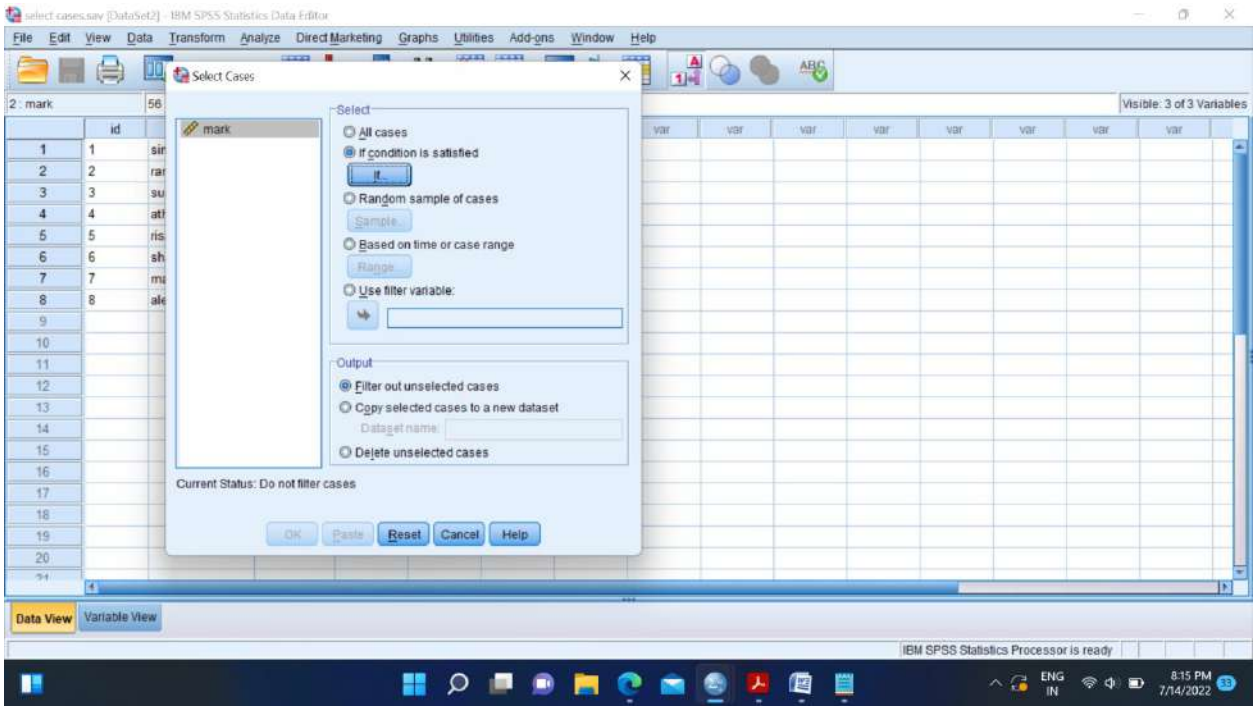
- Filtered out unselected cases removes unselected cases from analysis, but not from the data matrix. A *filter* remains active until turned off by Data > Select Cases > All Cases . When the filter is turned off, all initial cases are again available for analysis. [A the command language level this corresponds to the FILTER command]
- Delete unselected cases Deletes all cases unselected from the data matrix, i.e. actually removes them and creates a subset of the initial cases. If you want the original cases back, you will need to re-read the original file.[At the command language level this corresponds to the SELECT IF command]
- Copy selected cases to a new dataset copies the selected to a new *dataset*, visible in a new data editor window; the original dataset is not changed and unselected cases are not copied to the new dataset.

Example

Create a spss file

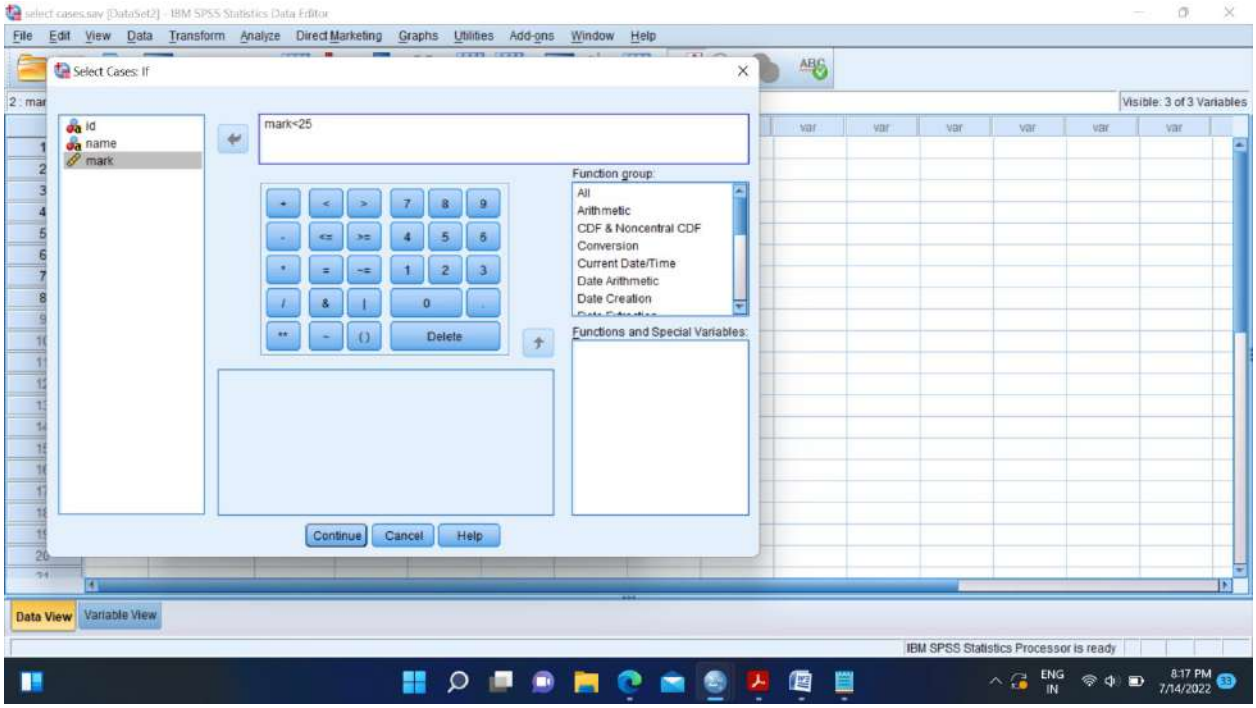


Click on data->select cases



Make the above option

Then click on if button



Enter the above condition as above

Then click continue button then ok button

*select cases.sav [DataSet2] - IBM SPSS Statistics Data Editor

File Edit View Data Transform Analyze Direct Marketing Graphs Utilities Add-ons W

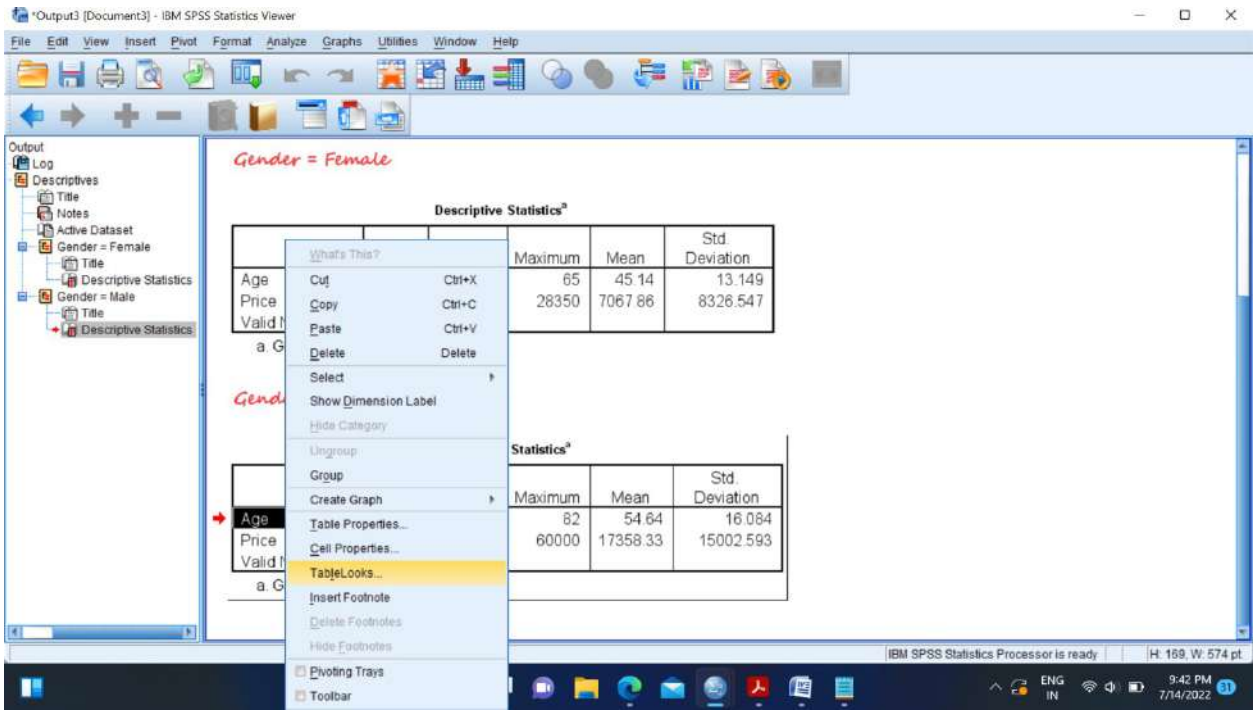
1 :

	id	name	mark	filter_$	var	var
1	1	sinan	45	Not Selected		
2	2	ramesh	56	Not Selected		
3	3	sumesh	22	Selected		
4	4	athira	10	Selected		
5	5	risa	90	Not Selected		
6	6	shaan	67	Not Selected		
7	7	manu	76	Not Selected		

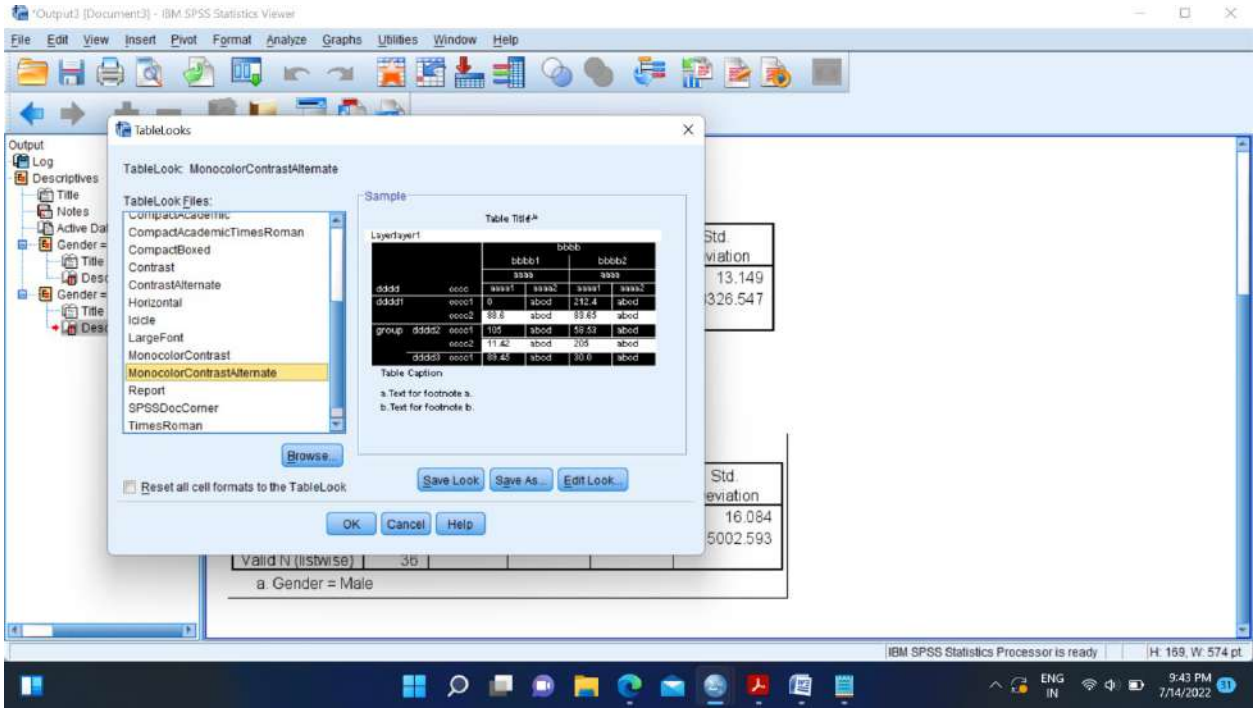
Table look

For making the output report of table look in different colours and style

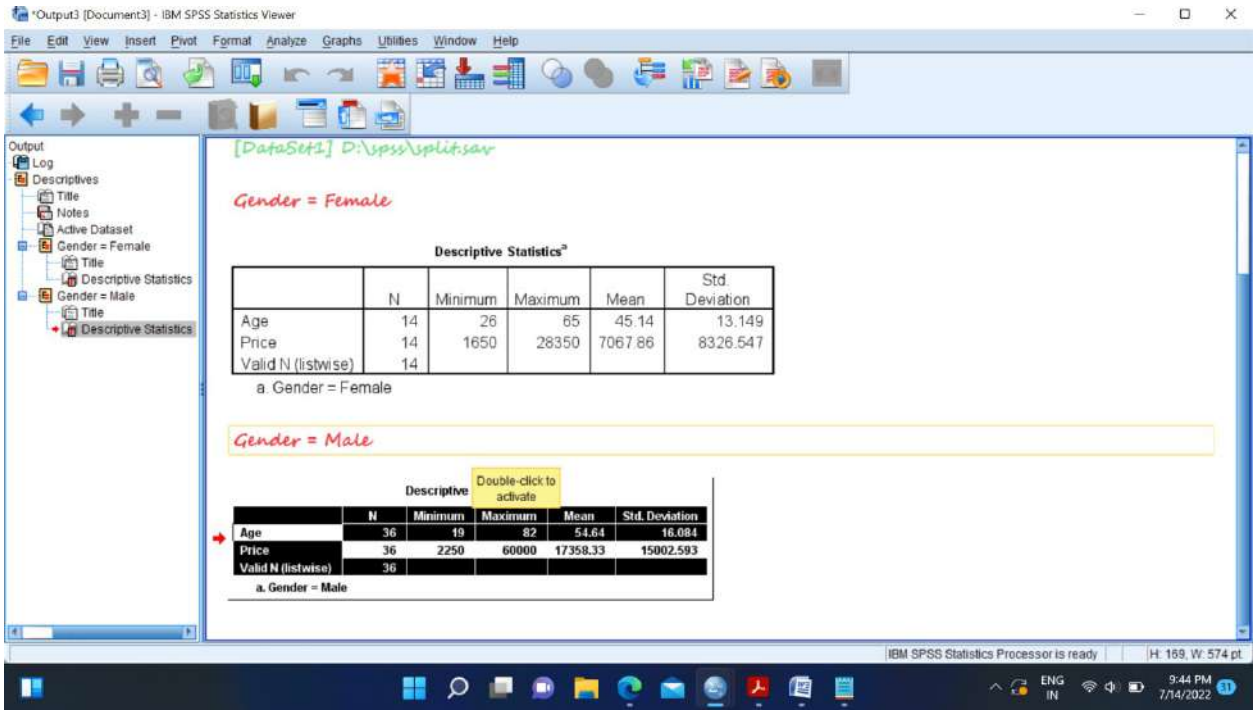
Right click on table then table look menu clicking



Then choose any style for table



Click ok



Compute total score

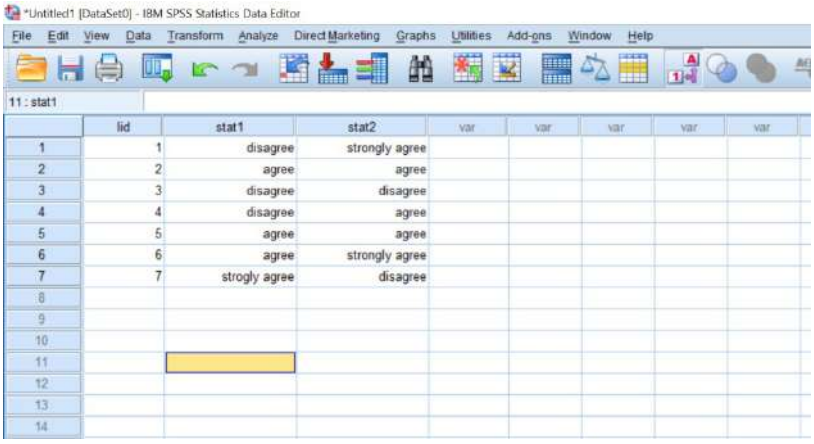
Sometimes you may need to compute a new variable based on existing information (from other variables) in your data. For example, you may want to:

- Convert the units of a variable from feet to meters
- Use a subject's height and weight to compute their BMI
- Compute a subscale score from items on a survey
- Apply a computation conditionally, so that a new variable is only computed for cases where certain conditions are met

Example

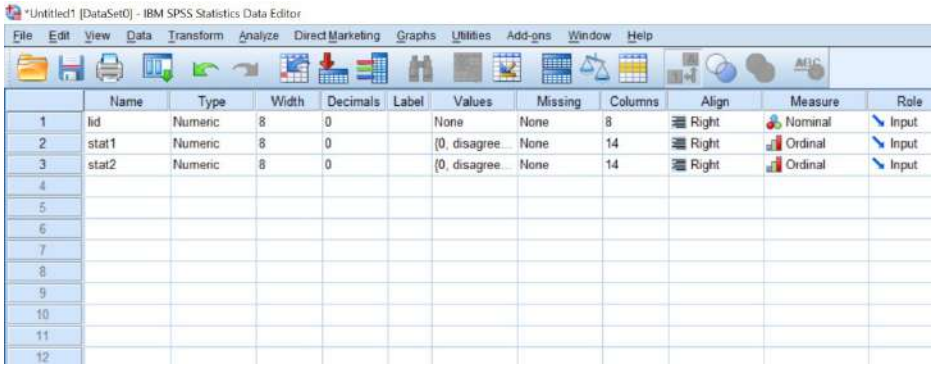
Create a a sample spss file contains three variable id,stat1,state2, here we want to computer state1 and state2 to new variable

Step1. Create a spss file having three variable



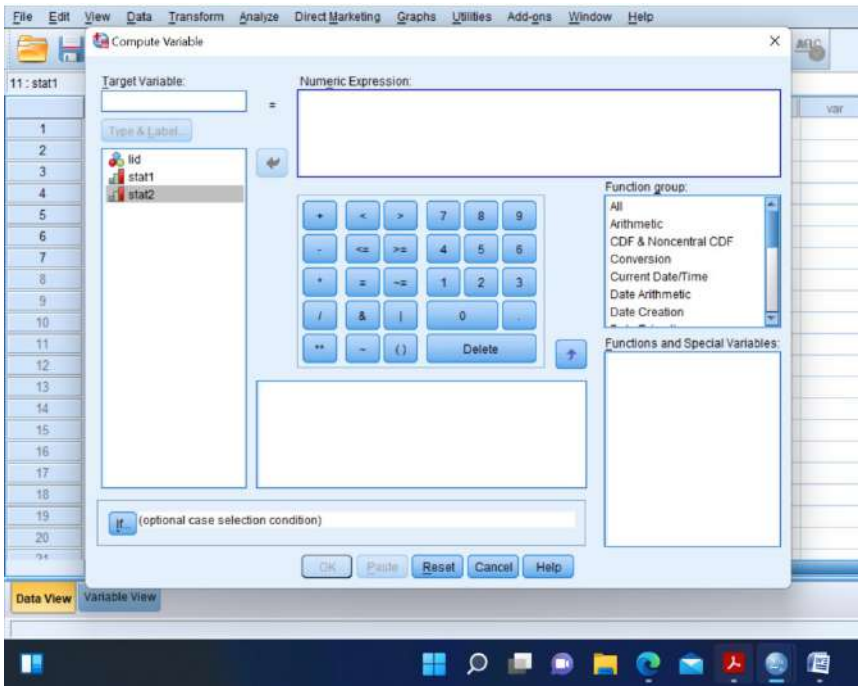
	lid	stat1	stat2	var	var	var	var	var
1	1	disagree	strongly agree					
2	2	agree	agree					
3	3	disagree	disagree					
4	4	disagree	agree					
5	5	agree	agree					
6	6	agree	strongly agree					
7	7	strogly agree	disagree					
8								
9								
10								
11								
12								
13								
14								

Its variable view is



	Name	Type	Width	Decimals	Label	Values	Missing	Columns	Align	Measure	Role
1	lid	Numeric	8	0		None	None	8	Right	Nominal	Input
2	stat1	Numeric	8	0		{0, disagree...	None	14	Right	Ordinal	Input
3	stat2	Numeric	8	0		{0, disagree...	None	14	Right	Ordinal	Input
4											
5											
6											
7											
8											
9											
10											
11											
12											

Step 2: To compute a new variable, click **Transform > Compute Variable**.



Target Variable: The name of the new variable that will be created during the computation. Simply type a name for the new variable in the text field. Once a variable is entered here, you can click on "Type & Label" to assign a variable type and give it a label. The default type for new variables is numeric.

The left column lists all of the variables in your dataset. You can use this menu to add variables into a computation: either double-click on a variable to add it to the Numeric Expression field, or select the variable(s) that will be used in your computation and click the arrow to move them to the **Numeric Expression** text field (C).

C Numeric Expression: Specify how to compute the new variable by writing a numeric expression. This expression must include one or more variables from your dataset, and can use arithmetic or functions.

When writing an expression in the Compute Variables dialog window:

- SPSS is not case-sensitive with respect to variable names.
- When specifying the formula for a new variable, you have to option to include or not include spaces after the commas that go between arguments in a function.
- Do not put a period at the end of the expression you enter into the Numeric Expression box.

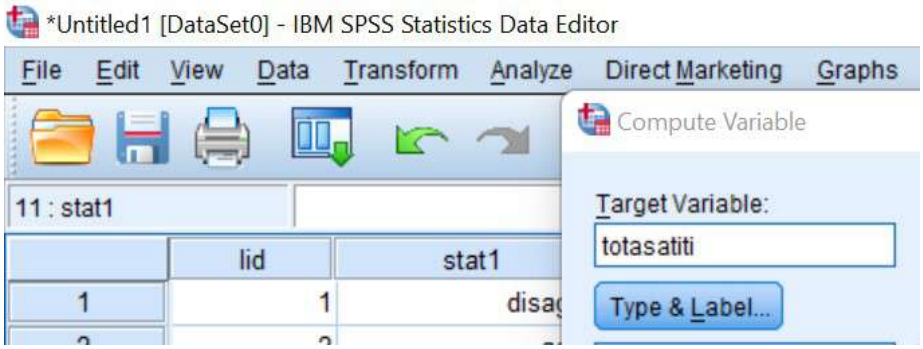
The center of the window includes a collection of arithmetic operators, Boolean operators, and numeric characters, which you can use to specify how your new variable will be calculated. There are many kinds of calculations you can specify by selecting a variable (or multiple variables) from the left column, moving them to the center text field, and using the blue buttons to specify values (e.g., "1") and operations (e.g., +, *, /).

If: The **If** option allows you to specify the conditions under which your computation will be applied.

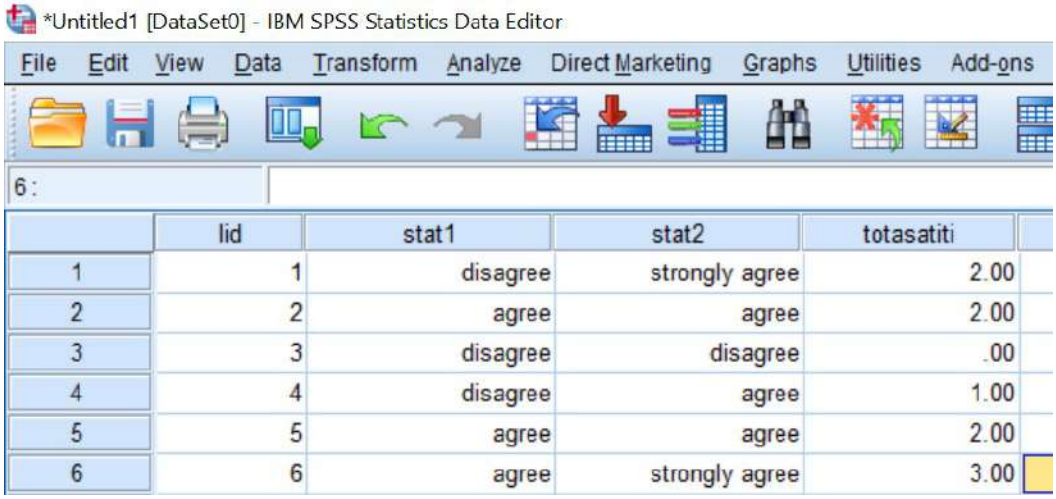
Function group: You can also use the built-in functions in the **Function group** list on the right-hand side of the window. The function group contains many useful, common functions that may be used for calculating values for new variables (e.g., mean, logarithm). To find a specific function, simply click one of the function groups in the **Function Group** list. You will now see a list of functions that belong to that function group in the **Functions and Special Variables** area. If you click on a specific function, a description of that function will appear in the text field to the left.

Enter name target variable name totalstat and in numeric expression box give

Sum(stat1,stat2)



Then click ok

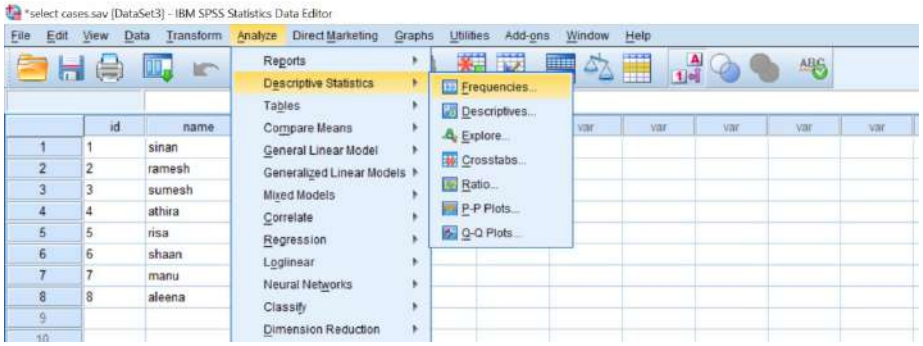


	lid	stat1	stat2	totasatiti
1	1	disagree	strongly agree	2.00
2	2	agree	agree	2.00
3	3	disagree	disagree	.00
4	4	disagree	agree	1.00
5	5	agree	agree	2.00
6	6	agree	strongly agree	3.00

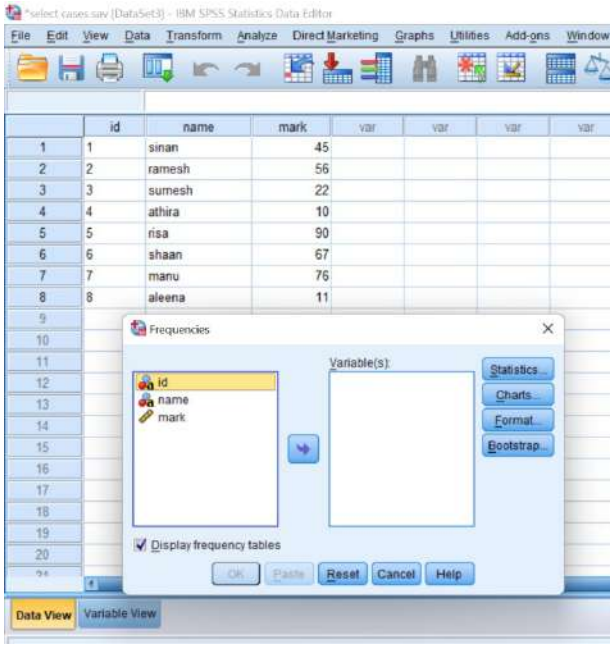
Diagrammatic Representation

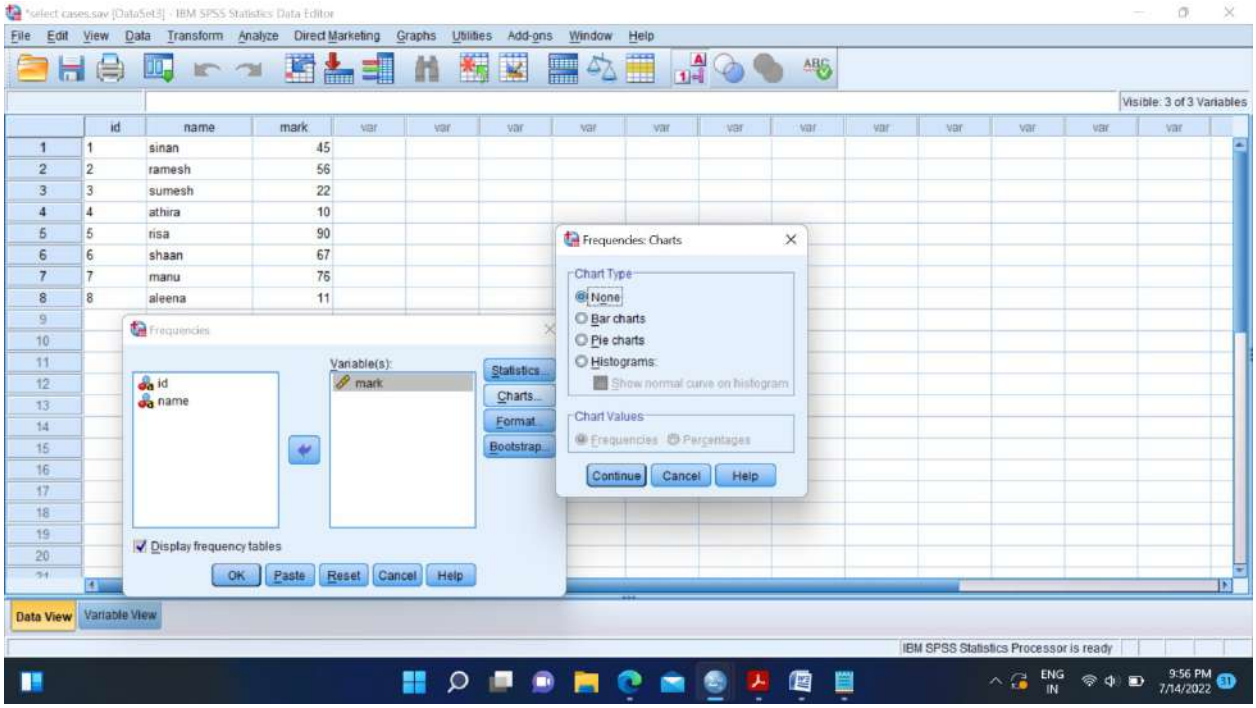
We can use different chart like piechart etc

Click on analyze->descriptive statistics->frequency



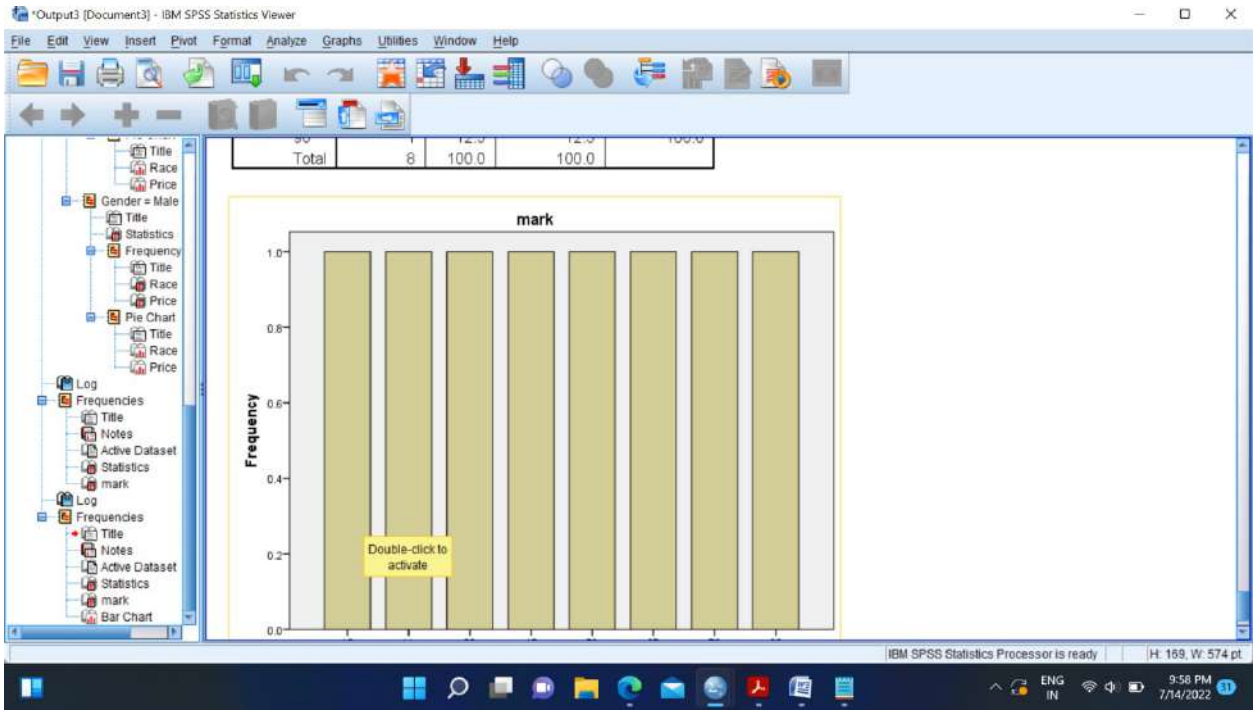
Then click on chart





Select any chart

Then click continue ok


*Output3 [Document3] - IBM SPSS Statistics Viewer
File Edit View Insert Pivot Format Analyze Graphs Utilities Window Help
Total 8 100.0 100.0
mark
Frequency
1.0
0.8
0.6
0.4
0.2
0.0
Double-click to activate
Title
Race
Price
Gender = Male
Statistics
Frequency
Pie Chart
Log
Frequencies
Notes
Active Dataset
mark
Bar Chart
IBM SPSS Statistics Processor is ready
H: 169, W: 574 pt
ENG
IN
9:58 PM
7/14/2022