How can I recode a variable into a different variable in SPSS?

Authored by

stats writer

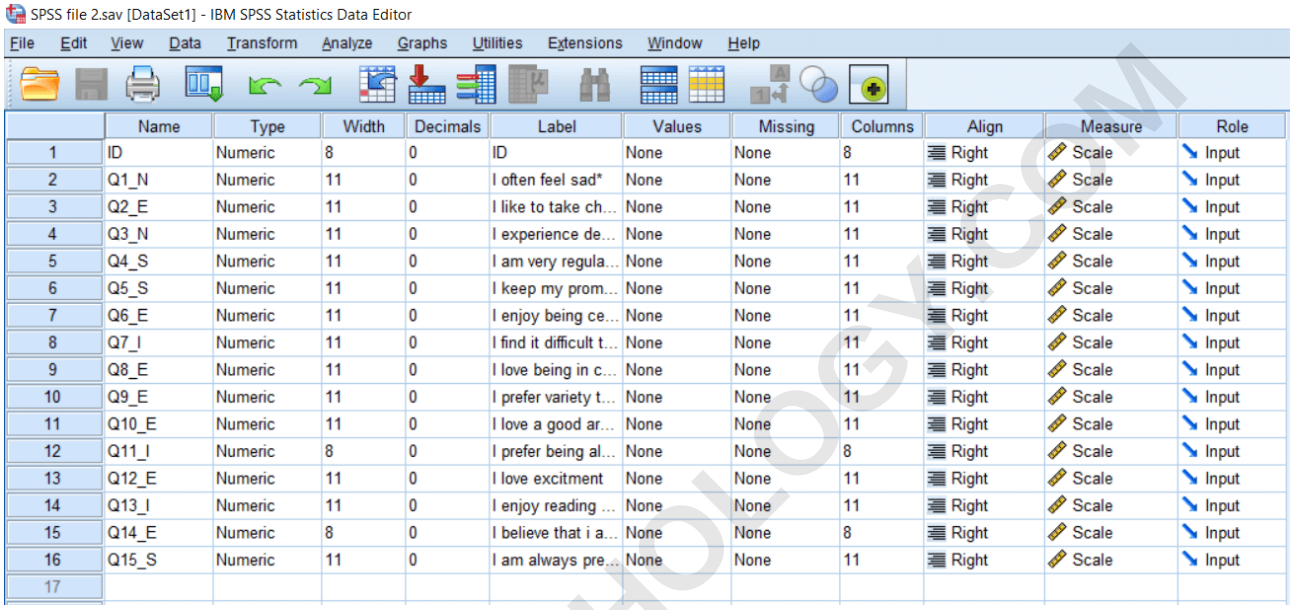
June 23, 2024

Recoding a variable into a different variable in SPSS refers to the process of transforming the values of an existing variable and creating a new variable with those transformed values. This is often done to simplify data analysis, make comparisons easier, or to better represent the data. To recode a variable in SPSS, one must use the "Recode into Different Variables" function, which allows for the creation of new variables based on the values of one or more existing variables. This function can be found under the "Transform" menu in SPSS and provides various options for recoding, such as recoding ranges of values, creating new categories, or converting numeric values into categorical ones. By utilizing this function, researchers can easily manipulate and organize their data in a more meaningful way for their analysis.

Recode into Different Variable in SPSS

In this section, we will learn Recode into Same or Different variables in SPSS using the Recode function. We are currently using recode into different variable options because we want to preserve my original data set. So first we need clear about our problem. In this case, this is the data set about the personality, and we want to find out the total personality score. The purpose of the total is that it should give us the desirable personality characteristics at the workplace, which means the person should be high on Extroversion and high on Stability. We have a scale that measures Extroversion and Stability, which also contains their opposite sides, i.e., Introversion and instability. So Extroversion items have been marked by E, and Introversion items have been marked by I. Stability items have been marked by S and instability items have

been marked by N. N stands for Neuroticism, which reflects the extent of instability in the personality of the individuals.


SPSS file 2.sav [DataSet1] - IBM SPSS Statistics Data Editor

File Edit View Data Transform Analyze Graphs Utilities Extensions Window Help

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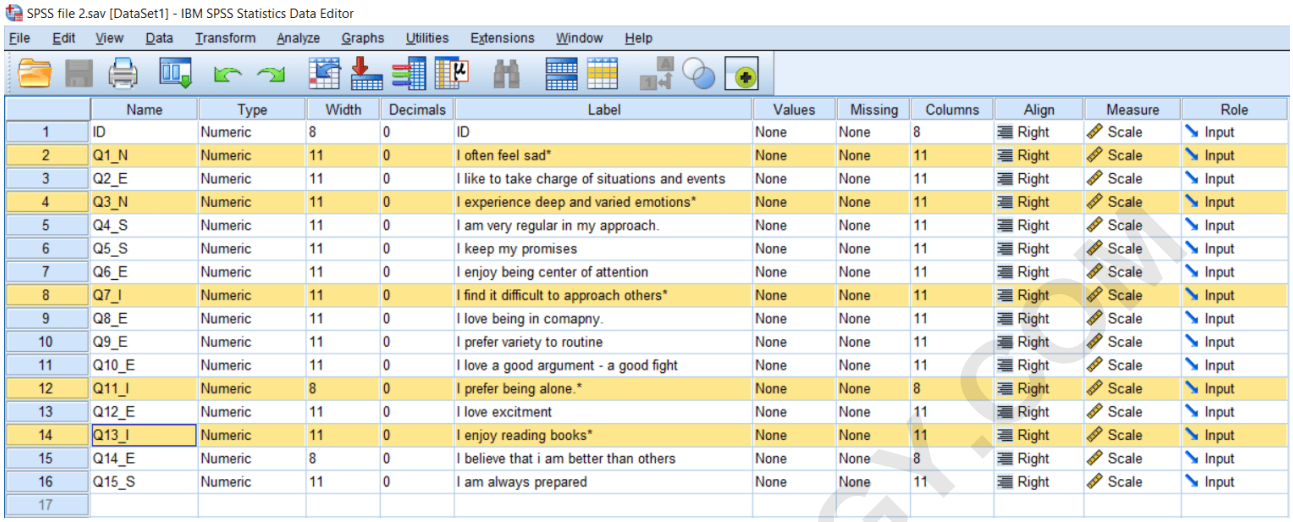
1	ID	Numeric	8	0	ID	None	None	8	Right	Scale	Input
2	Q1_N	Numeric	11	0	I often feel sad*	None	None	11	Right	Scale	Input
3	Q2_E	Numeric	11	0	I like to take ch...	None	None	11	Right	Scale	Input
4	Q3_N	Numeric	11	0	I experience de...	None	None	11	Right	Scale	Input
5	Q4_S	Numeric	11	0	I am very regula...	None	None	11	Right	Scale	Input
6	Q5_S	Numeric	11	0	I keep my prom...	None	None	11	Right	Scale	Input
7	Q6_E	Numeric	11	0	I enjoy being ce...	None	None	11	Right	Scale	Input
8	Q7_I	Numeric	11	0	I find it difficult t...	None	None	11	Right	Scale	Input
9	Q8_E	Numeric	11	0	I love being in c...	None	None	11	Right	Scale	Input
10	Q9_E	Numeric	11	0	I prefer variety t...	None	None	11	Right	Scale	Input
11	Q10_E	Numeric	11	0	I love a good ar...	None	None	11	Right	Scale	Input
12	Q11_I	Numeric	8	0	I prefer being al...	None	None	8	Right	Scale	Input
13	Q12_E	Numeric	11	0	I love excitment	None	None	11	Right	Scale	Input
14	Q13_I	Numeric	11	0	I enjoy reading ...	None	None	11	Right	Scale	Input
15	Q14_E	Numeric	8	0	I believe that i a...	None	None	8	Right	Scale	Input
16	Q15_S	Numeric	11	0	I am always pre...	None	None	11	Right	Scale	Input
17											

For doing total, we need to reverse score all those items which have been marked by the asterisk, and we called them negatively worded items. A high score on this Scale reflects high Extroversion and high stable personality trades, so overall desirable personality trades at the workplace. To do that first, we need to clear about those items which need to be reverse scored. In this case, we have already marked all those items through an asterisk at the end. It is the standard practice in the psychometrics or research methods. So the questions that need to be reverse scored are

questions no 1, 3, 7, 11, and 13.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1	ID	Numeric	8	0	ID	None	None	8	Right	Scale	Input
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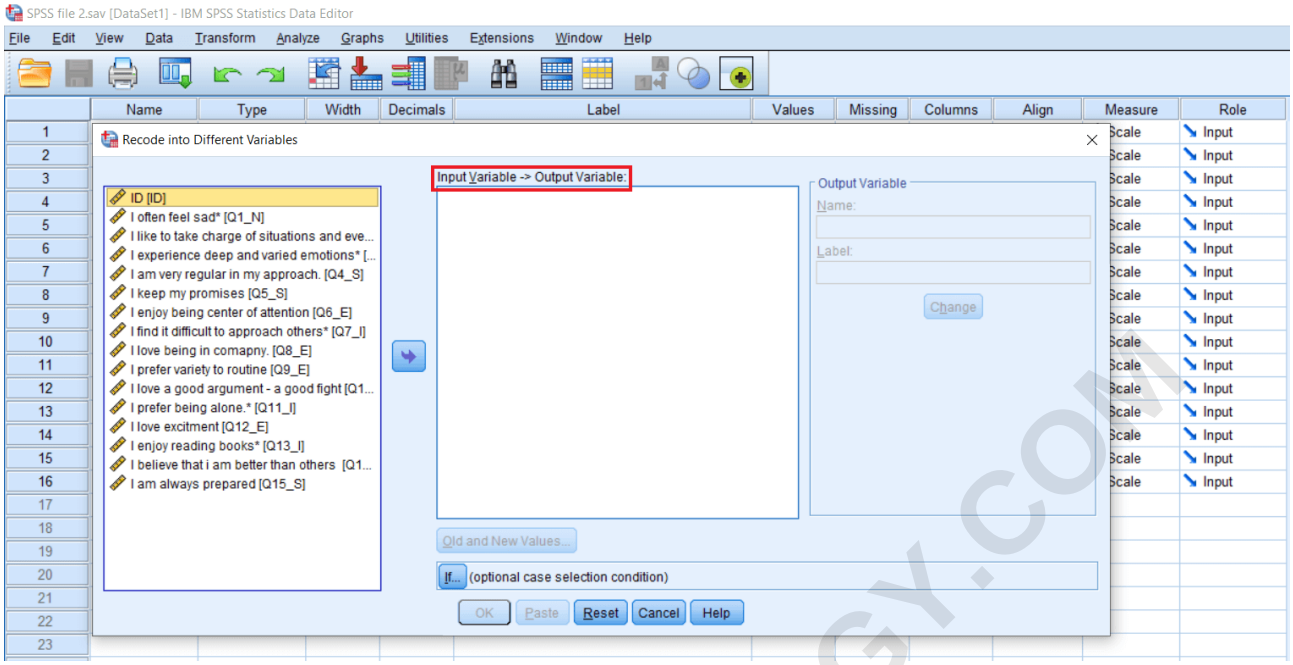
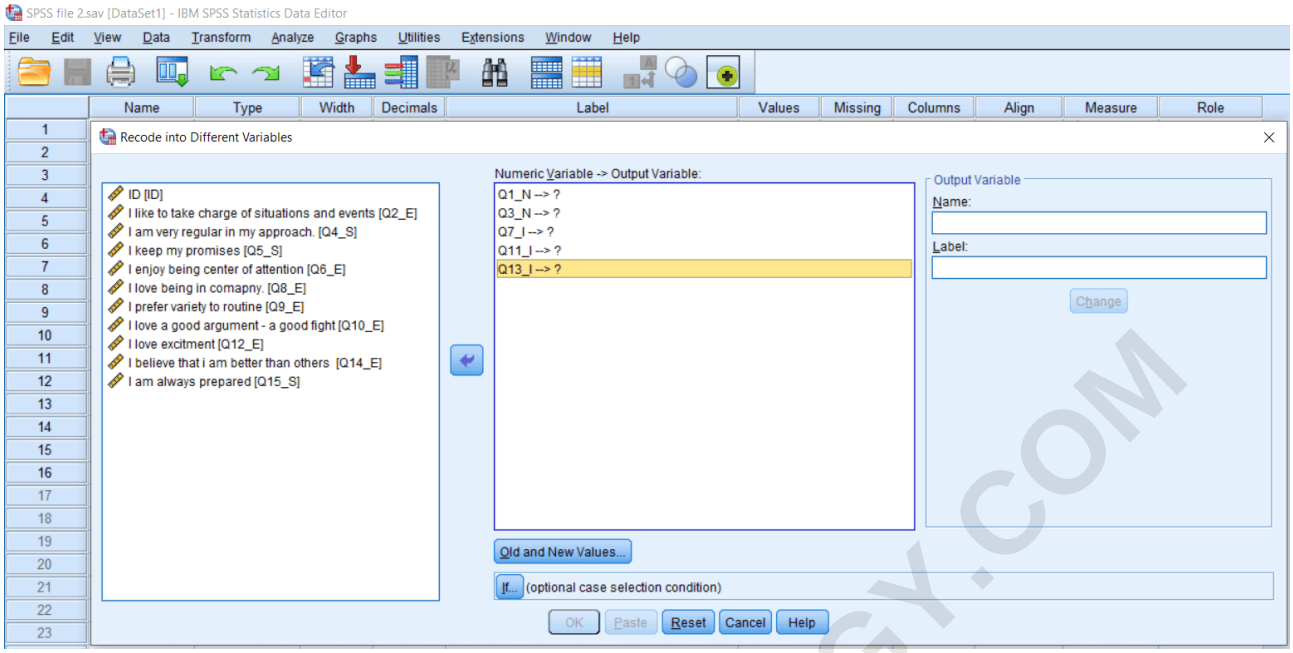
3	Q2_E	Numeric	11	0	I like to take charge of situations and events	None	None	11	Right	Scale	Input
4	Q3_N	Numeric	11	0	I experience deep and varied emotions*	None	None	11	Right	Scale	Input
5	Q4_S	Numeric	11	0	I am very regular in my approach.	None	None	11	Right	Scale	Input
6	Q5_S	Numeric	11	0	I keep my promises	None	None	11	Right	Scale	Input
7	Q6_E	Numeric	11	0	I enjoy being center of attention	None	None	11	Right	Scale	Input
8	Q7_I	Numeric	11	0	I find it difficult to approach others*	None	None	11	Right	Scale	Input
9	Q8_E	Numeric	11	0	I love being in comapny.	None	None	11	Right	Scale	Input
10	Q9_E	Numeric	11	0	I prefer variety to routine	None	None	11	Right	Scale	Input
11	Q10_E	Numeric	11	0	I love a good argument - a good fight	None	None	11	Right	Scale	Input
12	Q11_I	Numeric	8	0	I prefer being alone.*	None	None	8	Right	Scale	Input
13	Q12_E	Numeric	11	0	I love excitment	None	None	11	Right	Scale	Input
14	Q13_I	Numeric	11	0	I enjoy reading books*	None	None	11	Right	Scale	Input
15	Q14_E	Numeric	8	0	I believe that i am better than others	None	None	8	Right	Scale	Input
16	Q15_S	Numeric	11	0	I am always prepared	None	None	11	Right	Scale	Input
17											

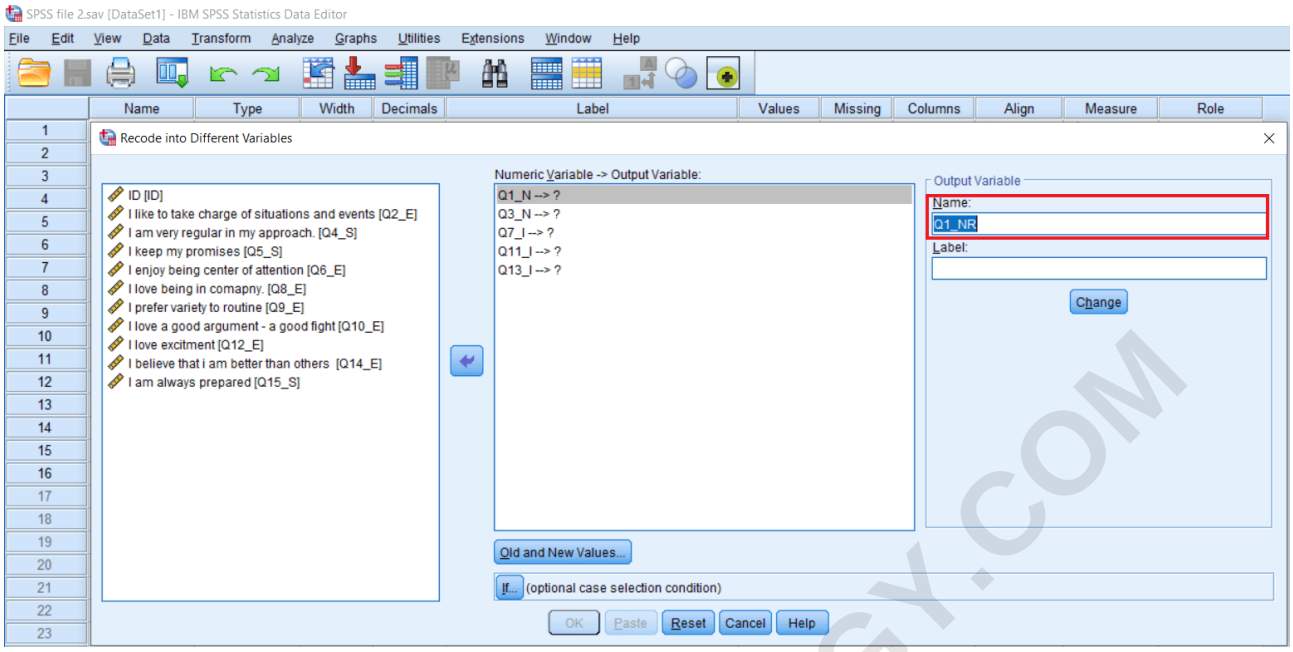
Now we go to the Transform menu and create Recode into Different Variables. We are already clear about what are the items that need to be reverse scored so we can send all those items under the Input Variables Output Variables, as shown below.



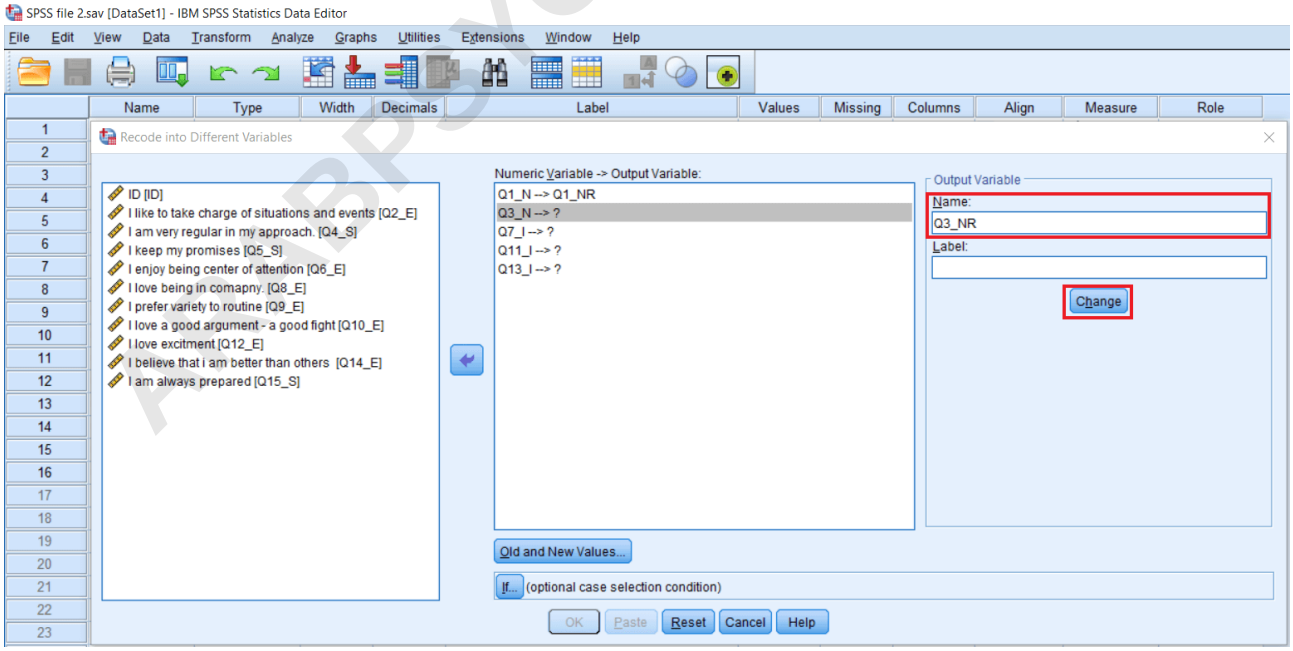
We can send all those items in one go and reverse score them in one go, or we can send them one by one and reverse score them one by one. So we will not send them one by one just to save time. We will send all of them in one go. So we will click on ctrl and select only all those items which we want to send. So we will send question no 1, 3, 7, 11, and 13 in the right-hand side box, and then we will do the reverse scoring.



Since we have chosen, Recode into different variables. Now we have to define the Output variable name as well. For the sake of consistency, we are creating new variables by appending R at the end where R stands for a reverse score or recoded. So we will write variable no 1 Q1_NR in the Name section, and then we need to click on Change as follows:

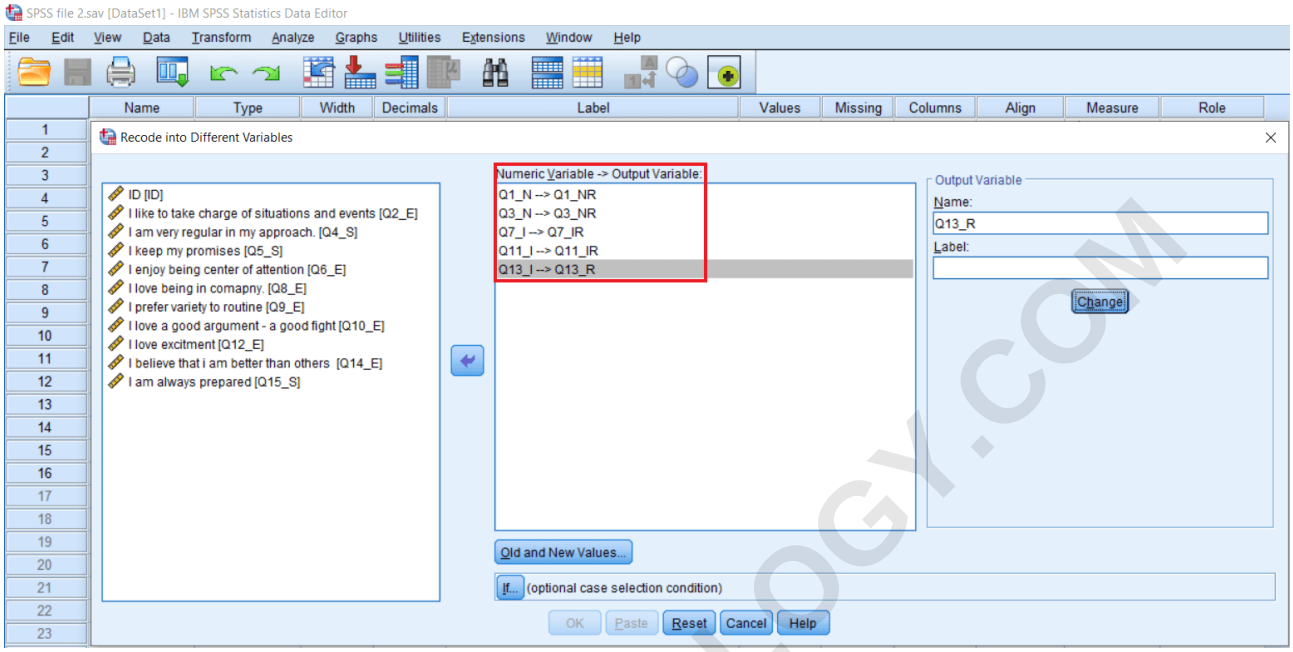


Now we will write variable Q3_NR, and then we will click on Change.

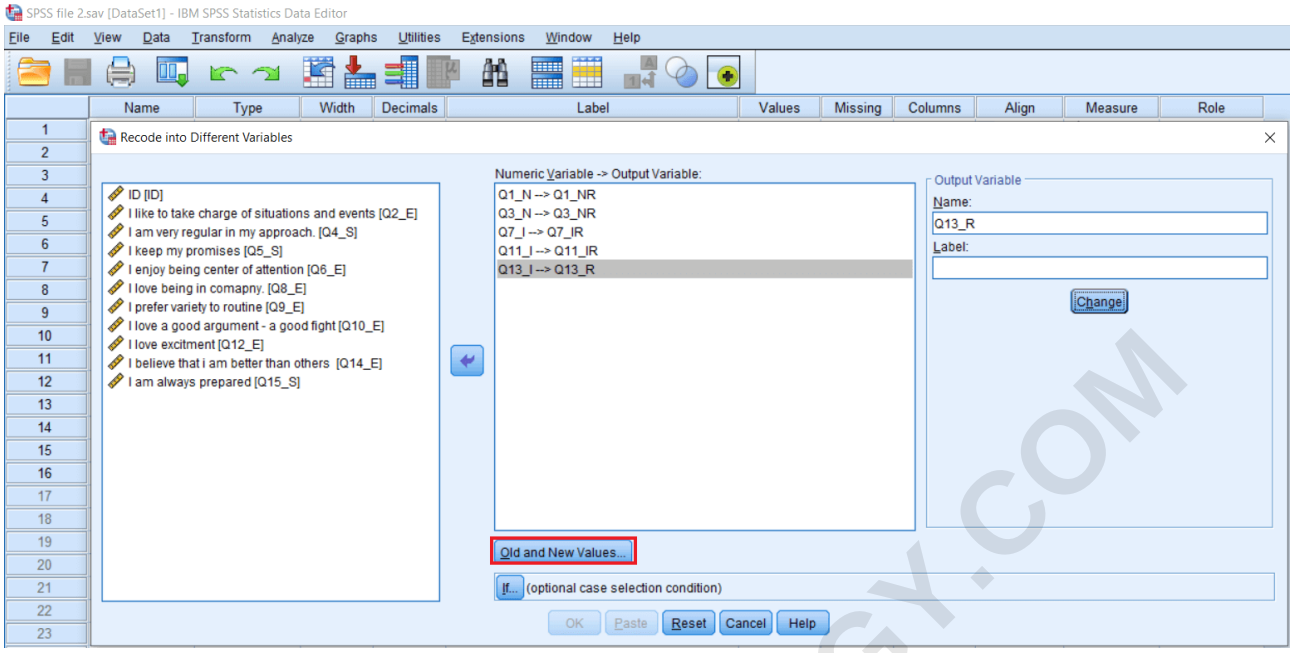


Similarly, we will write Q7_IR, Q11_IR, Q13_R, and then

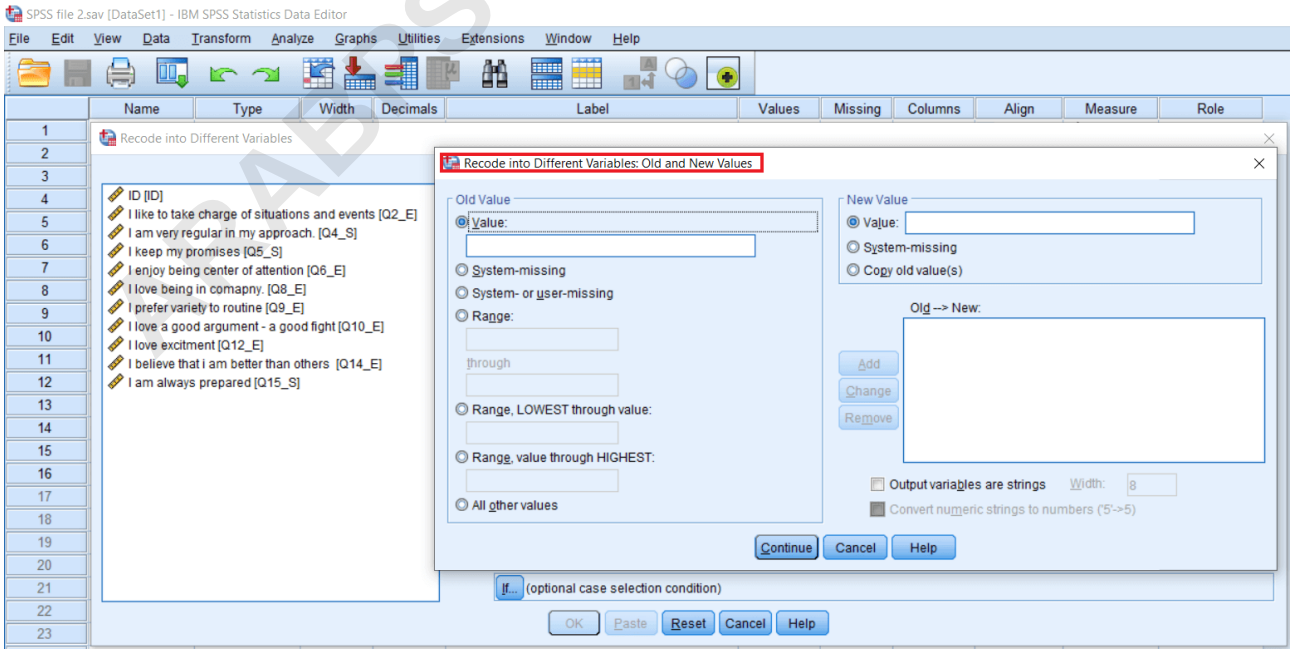
click on the Change option.



All the new output labels and variables names have been given. So once we have given name to all the output variables, and we have appended R at the end. We can do anything else, depending upon our convenience. The next step is to define the Old and New values. So we need to click on the Old and New values option as follows:



Once we click on this, we will see a dialog box. Here we will define what has been the old and what are the desirable new values.



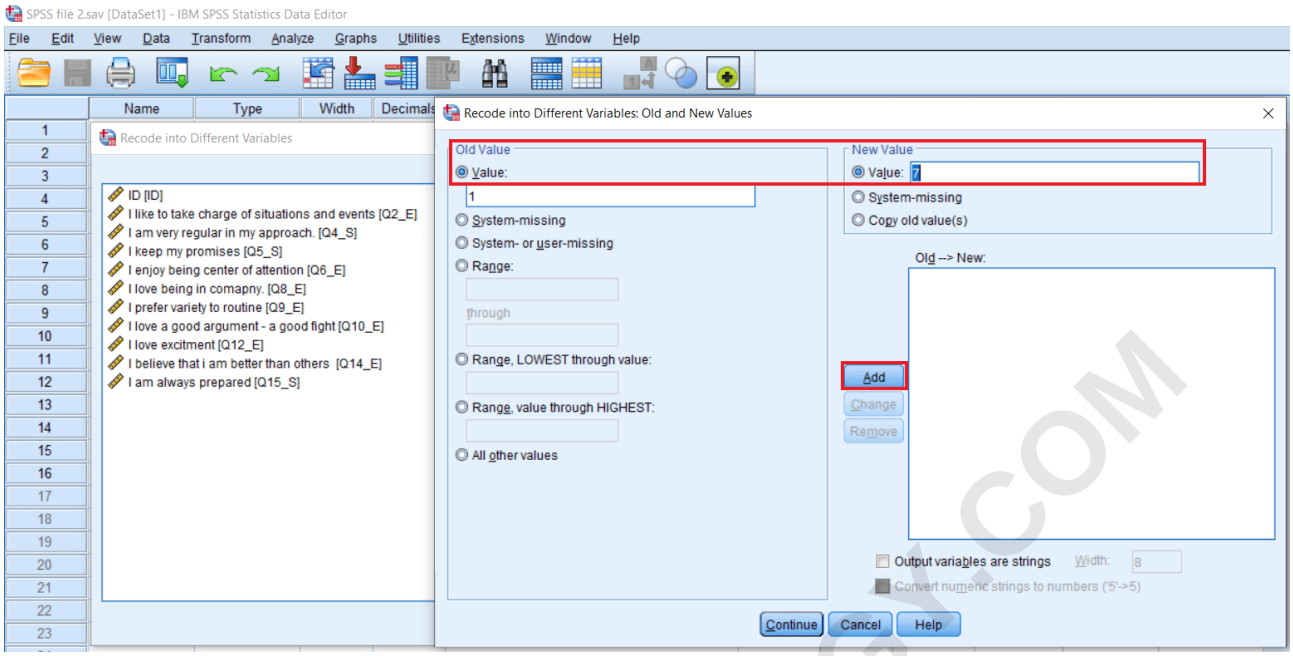
For defining old and new values, we need to understand the Scale. The Scale is given below:

Personality Questionnaire								
1	I often feel sad*	1 Strongly disagree.	2	3	4	5	6	7 Strongly Agree
2	I like to take charge of situations and events	1 Strongly disagree.	2	3	4	5	6	7 Strongly Agree
3	I experience deep and varied emotions*	1 Strongly disagree.	2	3	4	5	6	7 Strongly Agree
4	I am very regular in my approach.	1 Strongly disagree.	2	3	4	5	6	7 Strongly Agree
5	I keep my promises	1 Strongly disagree.	2	3	4	5	6	7 Strongly Agree
6	I enjoy being center of attention	1 Strongly disagree.	2	3	4	5	6	7 Strongly Agree
7	I find it difficult to approach others*	1 Strongly disagree.	2	3	4	5	6	7 Strongly Agree
8	I love being in company.	1 Strongly disagree.	2	3	4	5	6	7 Strongly Agree

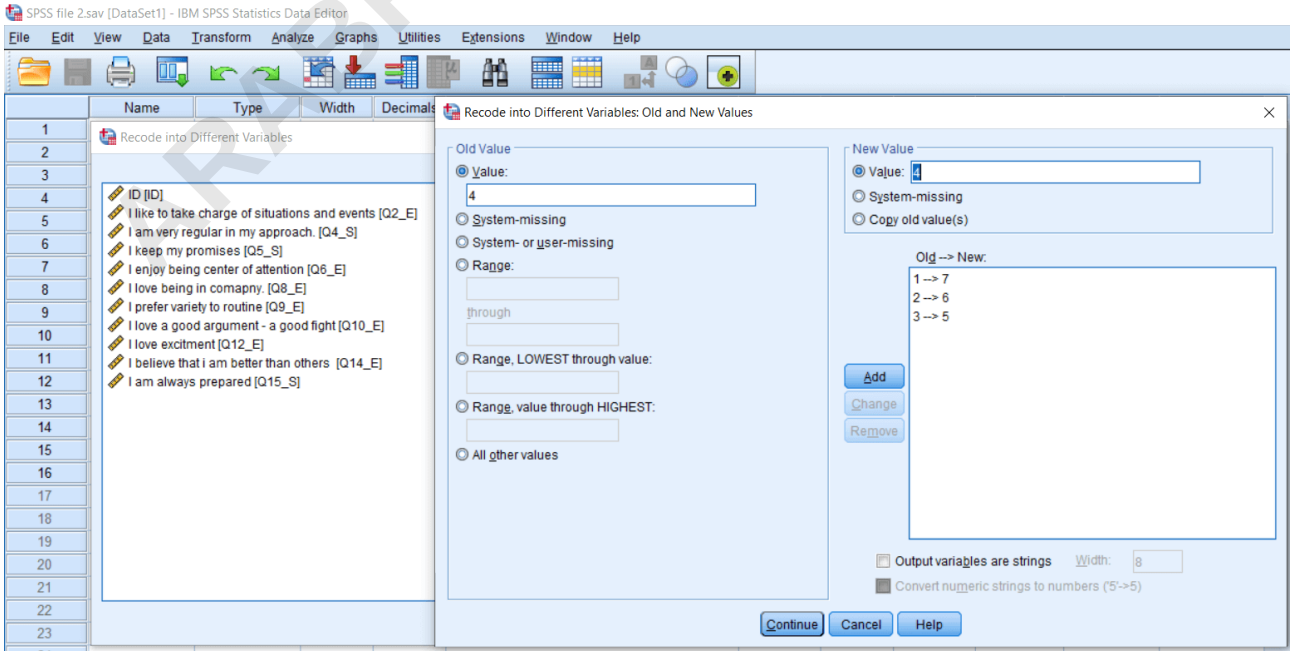
In this, we measure personality trades based on some statements. Responses are varying from Strongly disagree to Strongly agree. Suppose we convert this item I often feel sad. This is a negatively worded item, but we want to measure the overall scale as reflecting the positive personality trades. So we need just to reverse the score. For example, if somebody says that He often feels sad and gives a rating of 7, it means the

person is very moody. He is falling in the Neurotic category. If our focus is on positive or desirable personality trades and gives a high rating on this item, he should get a corresponding low rating for this item. So if he gives 7, he should be given a score of 1. If he rates himself as 6, he should be given a score of 2. If he rates himself as 5, he should be given a score of 3. Since 4 is the midpoint, so there will not be any change.

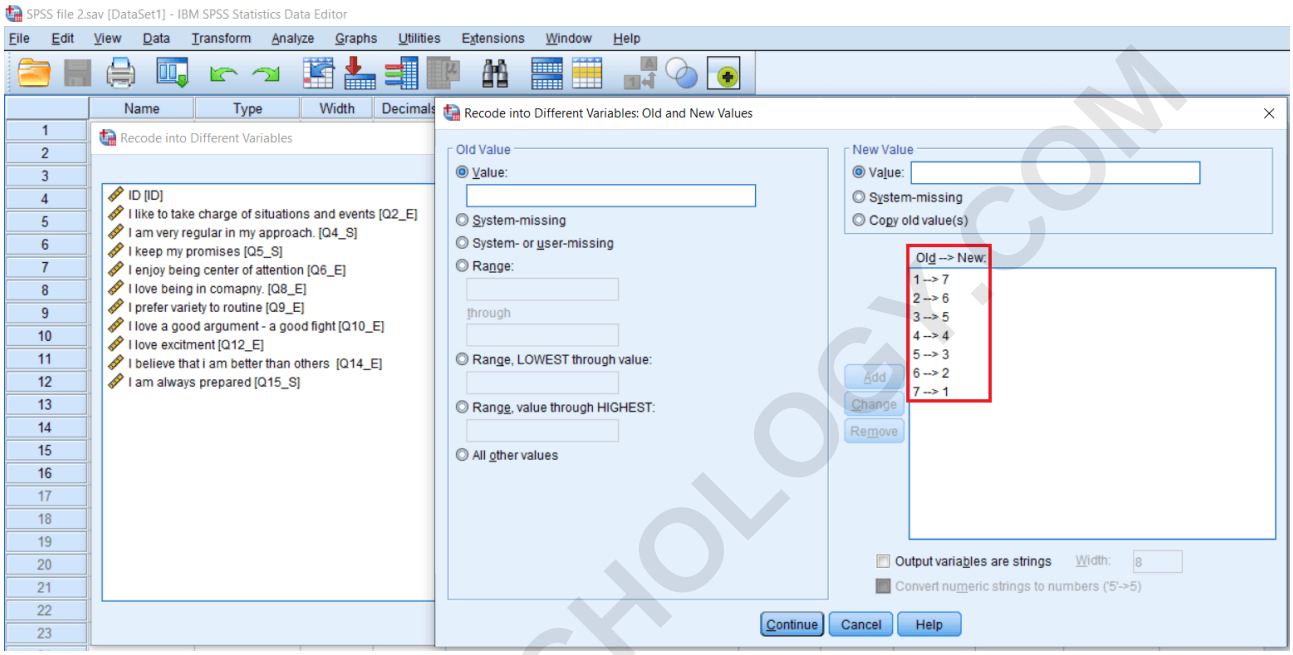
So we know that our old ratings are 1 to 7. Where 1 stands for Strongly disagree and 7 stands for Strongly agree. The new rating would be 7 converted to 1, 6 converted to 2, 5 converted to 3, and 4 no change. Now we will enter these values in SPSS. So if the old value is 1, the new value is 7. Then click on Add like this:



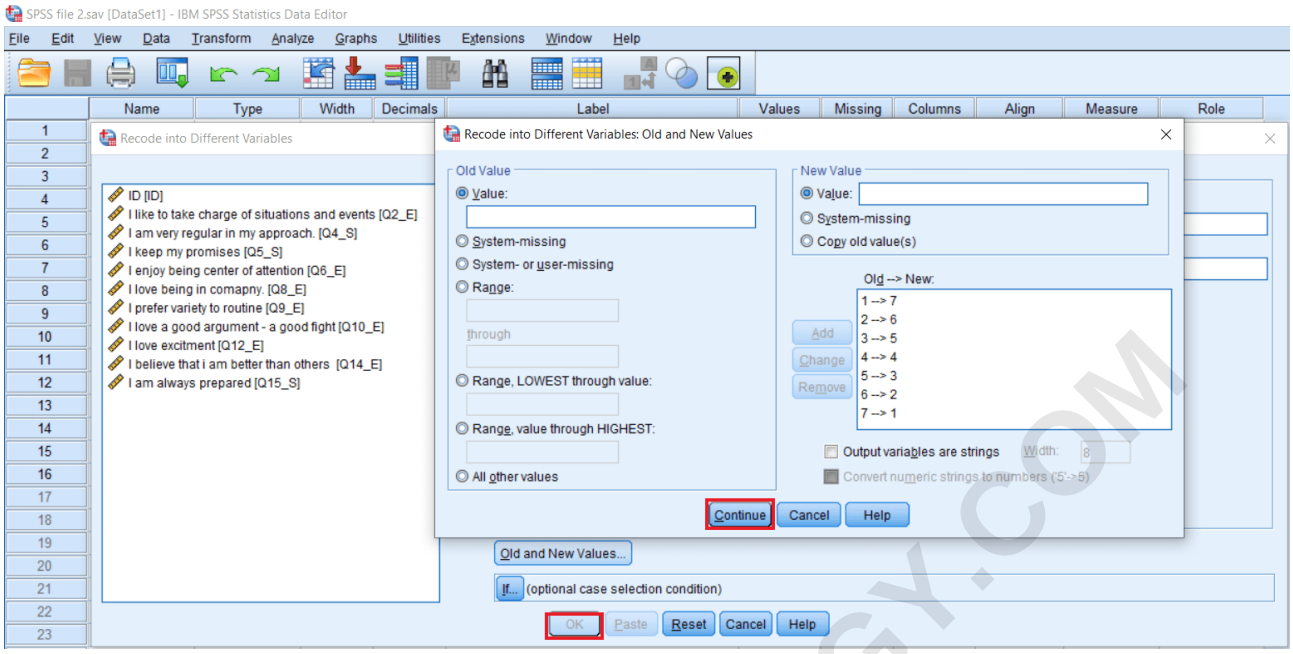
If the old value is 2, the new value is 6. Then click on Add. If the old value is 3, the new value is 5. Then click on add. If the old value is 4, the new value will remain 4. Then click Add.



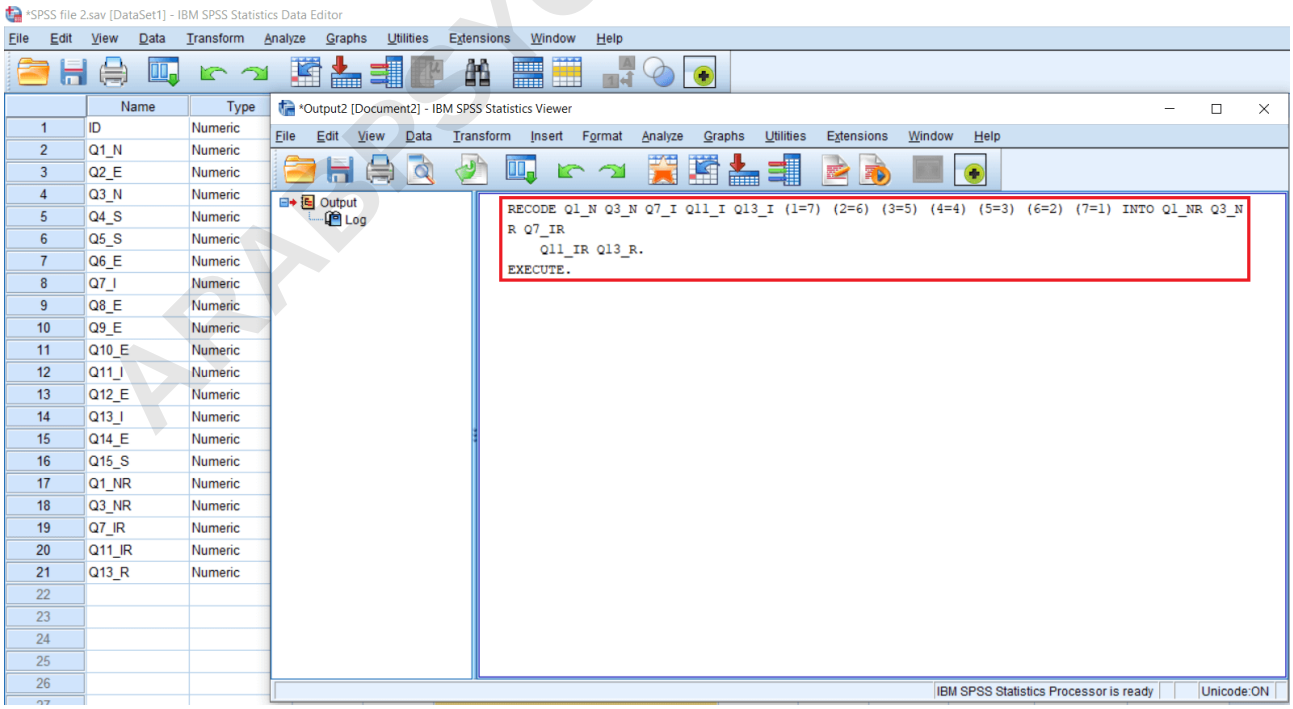
If it is 5, the new value will be 3. If it is 6, the new value will be 2. If it is 7, the new value will be 1. We will click on the Add button while defining old and new values.



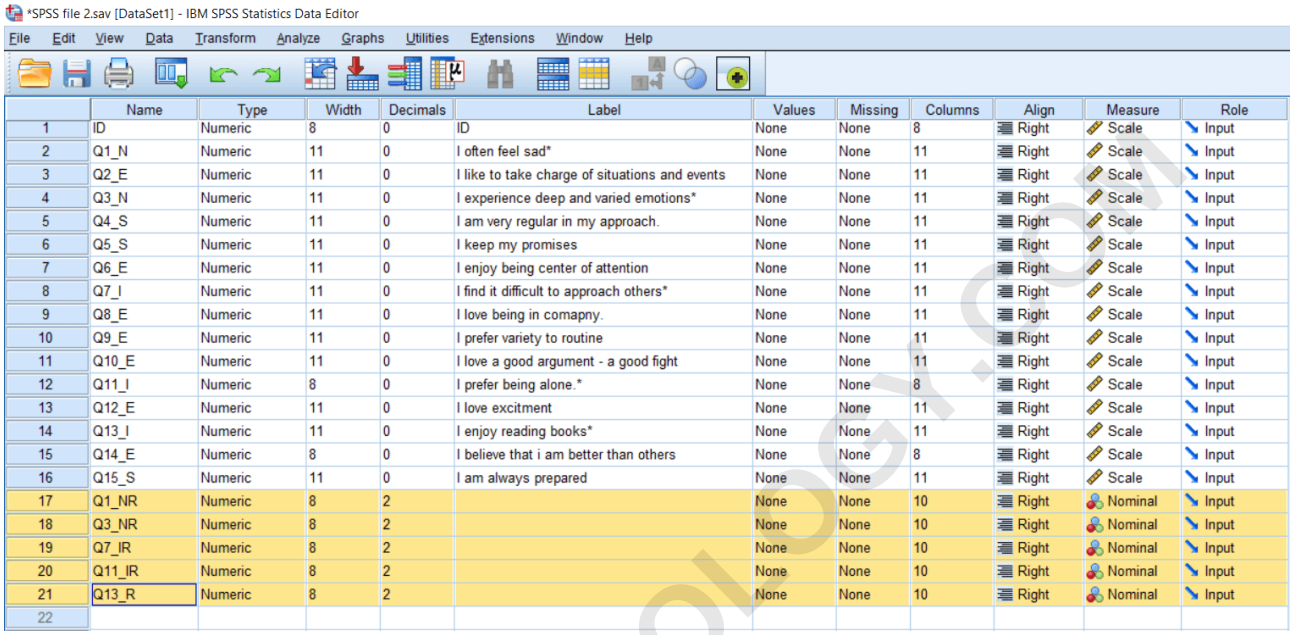
If we say we are not moody at all, it means it is desirable. We will be given a higher rating, or our ratings will be shifted because that what we desire. The person should not be moody. But if we rate ourselves very high on being moody, it means this is undesirable, and we will get a low score. The low score is 1, so 7 is given to 1. The rest has been changed accordingly. Once we have done this, click on Continue, and then press Ok like this:



Once we have press Ok, we can see the recode function command has been executed.



We can see our Data sets have been populated with these new variables as follows: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4	Q3_N	Numeric	11	0	I experience deep and varied emotions*	None	None	11	Right	Scale	Input
5	Q4_S	Numeric	11	0	I am very regular in my approach.	None	None	11	Right	Scale	Input
6	Q5_S	Numeric	11	0	I keep my promises	None	None	11	Right	Scale	Input
7	Q6_E	Numeric	11	0	I enjoy being center of attention	None	None	11	Right	Scale	Input
8	Q7_I	Numeric	11	0	I find it difficult to approach others*	None	None	11	Right	Scale	Input
9	Q8_E	Numeric	11	0	I love being in comapny.	None	None	11	Right	Scale	Input
10	Q9_E	Numeric	11	0	I prefer variety to routine	None	None	11	Right	Scale	Input
11	Q10_E	Numeric	11	0	I love a good argument - a good fight	None	None	11	Right	Scale	Input
12	Q11_I	Numeric	8	0	I prefer being alone.*	None	None	8	Right	Scale	Input
13	Q12_E	Numeric	11	0	I love excitment	None	None	11	Right	Scale	Input
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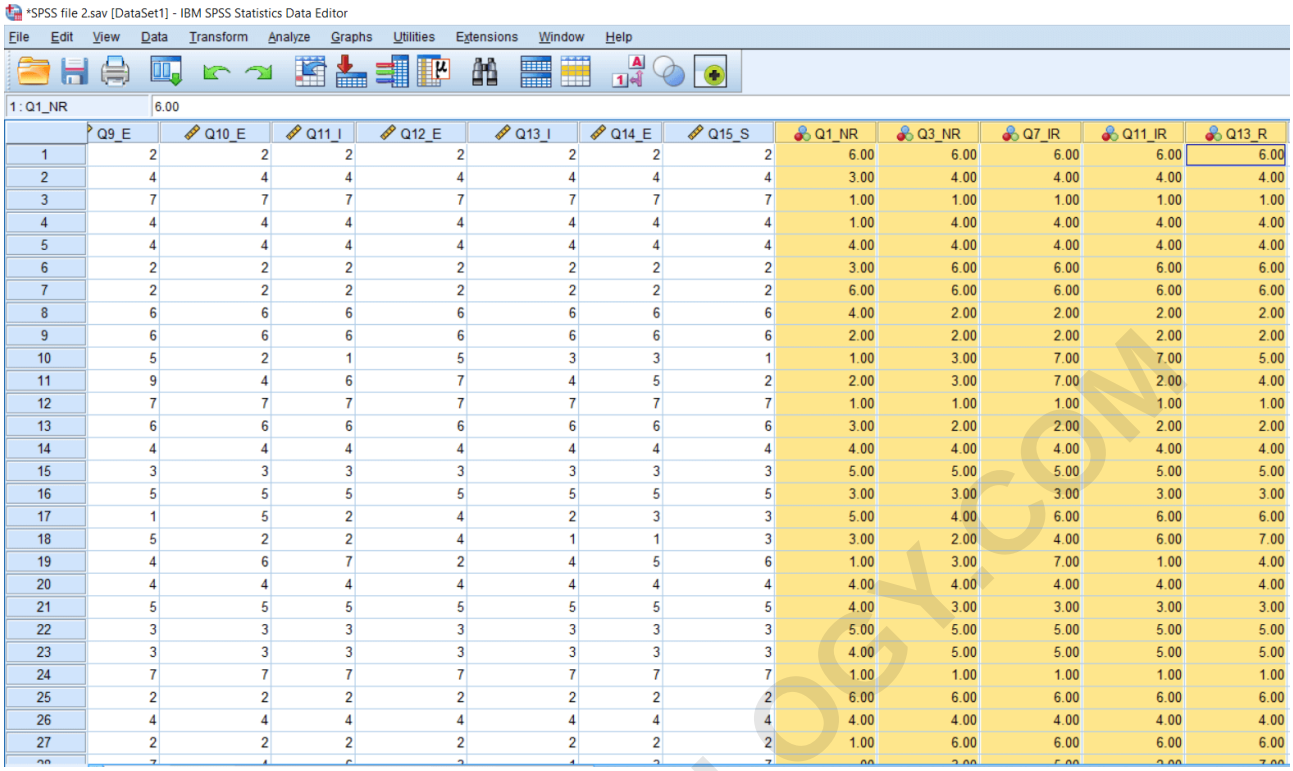
16	Q15_S	Numeric	11	0	I am always prepared	None	None	11	Right	Scale	Input
17	Q1_NR	Numeric	8	2		None	None	10	Right	Nominal	Input
18	Q3_NR	Numeric	8	2		None	None	10	Right	Nominal	Input
19	Q7_IR	Numeric	8	2		None	None	10	Right	Nominal	Input
20	Q11_IR	Numeric	8	2		None	None	10	Right	Nominal	Input
21	Q13_R	Numeric	8	2		None	None	10	Right	Nominal	Input
22											

When we click on the Data view option, we can see the data sets as follows:

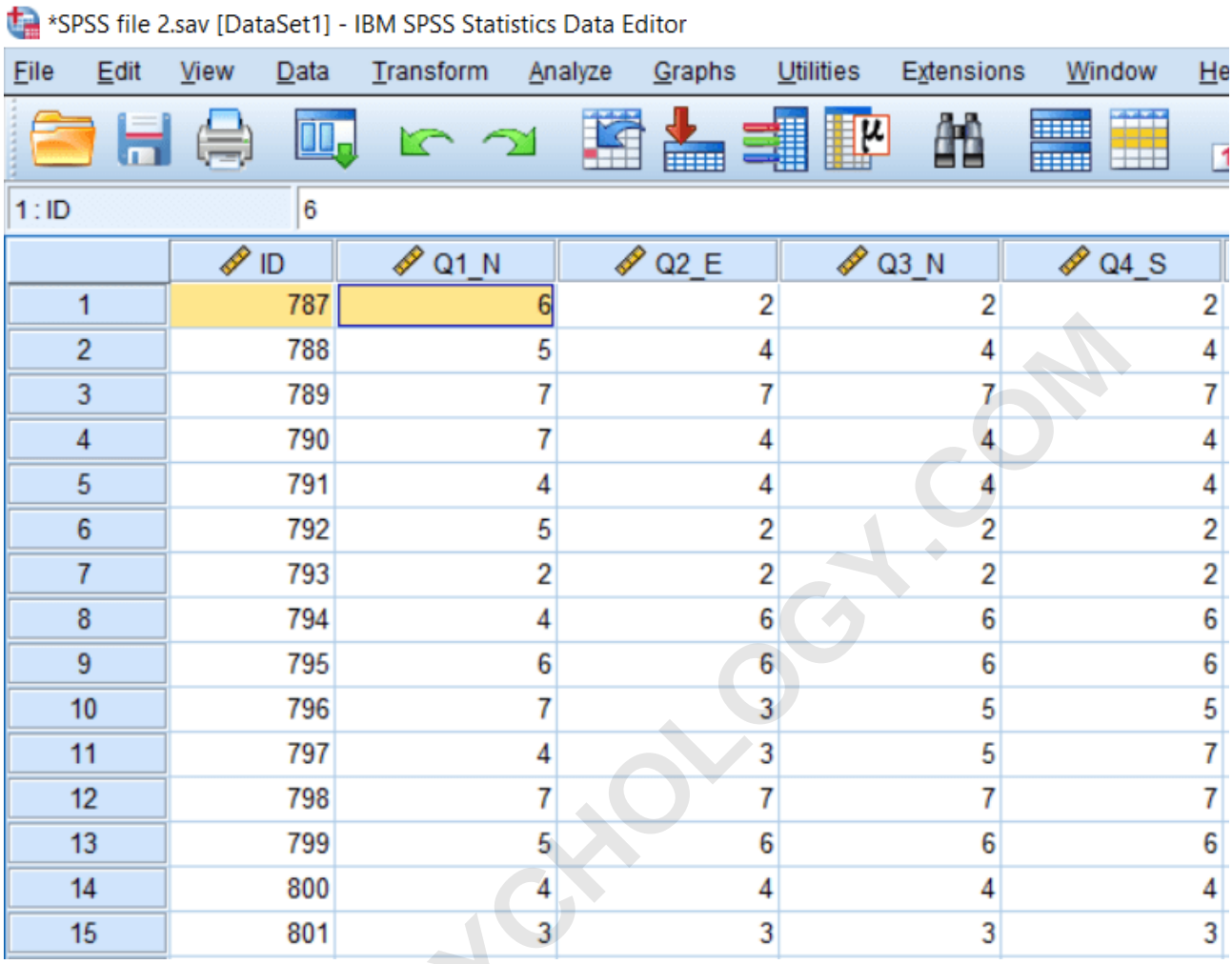

*SPSS file 2.sav [DataSet1] - IBM SPSS Statistics Data Editor

File Edit View Data Transform Analyze Graphs Utilities Extensions Window Help

1 : Q1_NR 6.00

	Q9_E	Q10_E	Q11_I	Q12_E	Q13_I	Q14_E	Q15_S	Q1_NR	Q3_NR	Q7_IR	Q11_IR	Q13_R
1	2	2	2	2	2	2	2	6.00	6.00	6.00	6.00	6.00
2	4	4	4	4	4	4	4	3.00	4.00	4.00	4.00	4.00
3	7	7	7	7	7	7	7	1.00	1.00	1.00	1.00	1.00
4	4	4	4	4	4	4	4	1.00	4.00	4.00	4.00	4.00
5	4	4	4	4	4	4	4	4.00	4.00	4.00	4.00	4.00
6	2	2	2	2	2	2	2	3.00	6.00	6.00	6.00	6.00
7	2	2	2	2	2	2	2	6.00	6.00	6.00	6.00	6.00
8	6	6	6	6	6	6	6	4.00	2.00	2.00	2.00	2.00
9	6	6	6	6	6	6	6	2.00	2.00	2.00	2.00	2.00
10	5	2	1	5	3	3	1	1.00	3.00	7.00	7.00	5.00
11	9	4	6	7	4	5	2	2.00	3.00	7.00	2.00	4.00
12	7	7	7	7	7	7	7	1.00	1.00	1.00	1.00	1.00
13	6	6	6	6	6	6	6	3.00	2.00	2.00	2.00	2.00
14	4	4	4	4	4	4	4	4.00	4.00	4.00	4.00	4.00
15	3	3	3	3	3	3	3	5.00	5.00	5.00	5.00	5.00
16	5	5	5	5	5	5	5	3.00	3.00	3.00	3.00	3.00
17	1	5	2	4	2	3	3	5.00	4.00	6.00	6.00	6.00
18	5	2	2	4	1	1	3	3.00	2.00	4.00	6.00	7.00
19	4	6	7	2	4	5	6	1.00	3.00	7.00	1.00	4.00
20	4	4	4	4	4	4	4	4.00	4.00	4.00	4.00	4.00
21	5	5	5	5	5	5	5	4.00	3.00	3.00	3.00	3.00
22	3	3	3	3	3	3	3	5.00	5.00	5.00	5.00	5.00
23	3	3	3	3	3	3	3	4.00	5.00	5.00	5.00	5.00
24	7	7	7	7	7	7	7	1.00	1.00	1.00	1.00	1.00
25	2	2	2	2	2	2	2	6.00	6.00	6.00	6.00	6.00
26	4	4	4	4	4	4	4	4.00	4.00	4.00	4.00	4.00
27	2	2	2	2	2	2	2	1.00	6.00	6.00	6.00	6.00

We can see that they are categorical variables. We need to convert that into scale variable because they are basically interval scale variables. After converting, we will look at the rating. For example, if we look at question no 1, the subject no 787 responded 6.

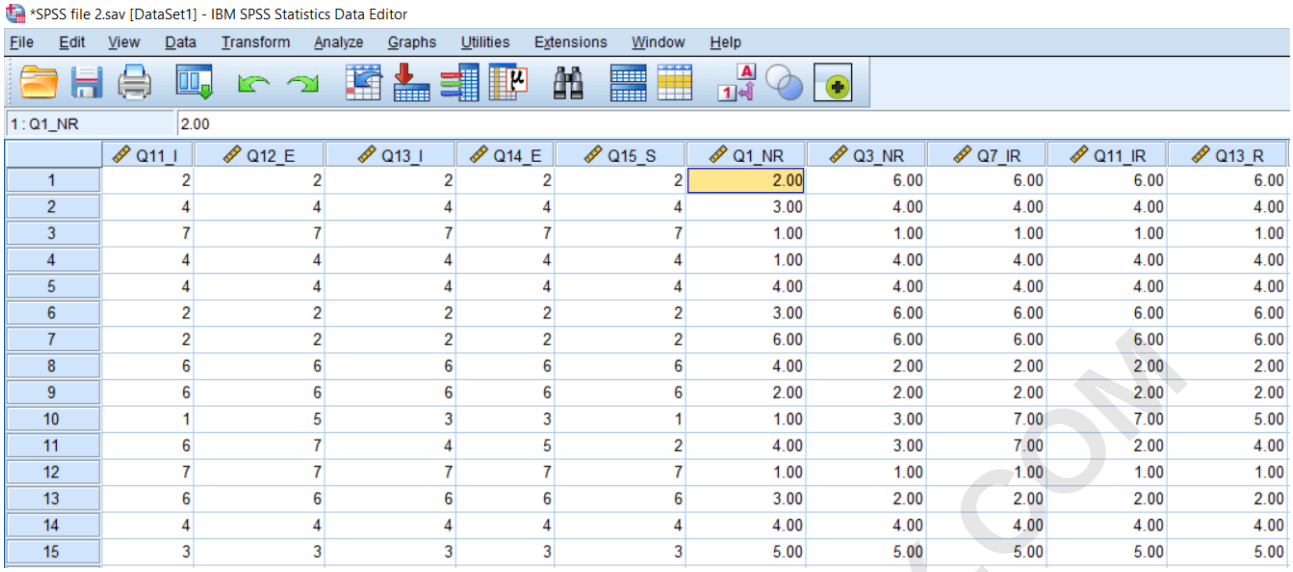

*SPSS file 2.sav [DataSet1] - IBM SPSS Statistics Data Editor

File Edit View Data Transform Analyze Graphs Utilities Extensions Window He

1 : ID 6

	ID	Q1_N	Q2_E	Q3_N	Q4_S
1	787	6	2	2	2
2	788	5	4	4	4
3	789	7	7	7	7
4	790	7	4	4	4
5	791	4	4	4	4
6	792	5	2	2	2
7	793	2	2	2	2
8	794	4	6	6	6
9	795	6	6	6	6
10	796	7	3	5	5
11	797	4	3	5	7
12	798	7	7	7	7
13	799	5	6	6	6
14	800	4	4	4	4
15	801	3	3	3	3

So we are expecting after recode, this must be converted into 2. So in Q1_NR, it has been converted into 2.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File Edit View Data Transform Analyze Graphs Utilities Extensions Window Help

1 : Q1_NR 2.00

	Q11_I	Q12_E	Q13_I	Q14_E	Q15_S	Q1_NR	Q3_NR	Q7_IR	Q11_IR	Q13_R
1	2	2	2	2	2	2.00	6.00	6.00	6.00	6.00
2	4	4	4	4	4	3.00	4.00	4.00	4.00	4.00
3	7	7	7	7	7	1.00	1.00	1.00	1.00	1.00
4	4	4	4	4	4	1.00	4.00	4.00	4.00	4.00
5	4	4	4	4	4	4.00	4.00	4.00	4.00	4.00
6	2	2	2	2	2	3.00	6.00	6.00	6.00	6.00
7	2	2	2	2	2	6.00	6.00	6.00	6.00	6.00
8	6	6	6	6	6	4.00	2.00	2.00	2.00	2.00
9	6	6	6	6	6	2.00	2.00	2.00	2.00	2.00
10	1	5	3	3	1	1.00	3.00	7.00	7.00	5.00
11	6	7	4	5	2	4.00	3.00	7.00	2.00	4.00
12	7	7	7	7	7	1.00	1.00	1.00	1.00	1.00
13	6	6	6	6	6	3.00	2.00	2.00	2.00	2.00
14	4	4	4	4	4	4.00	4.00	4.00	4.00	4.00
15	3	3	3	3	3	5.00	5.00	5.00	5.00	5.00

Similarly, all other responses for question no 3, 7, 11, 13 have been recorded. Now we can easily add these items for calculating the total score. For that, we just need to go to the Transform menu, Compute variables, and Click on Total.