Objective:
There are two objectives to this assignment. The first is specific to the assignment and the second is to practice skills learned in previous assignments.
1. Learn logic and process to transform variables using SPSS
2. Practice frequency distribution creation and analysis.

Assignment Description:
This assignment is to learn how to transform, or recode, variables. The principle is very simple: suppose one asked respondents the following closed ended question with the associated responses:

What is your labor force status?
0. Not Applicable
1. Working Fulltime
2. Working Part-time
3. Temporarily Not Working
4. Unemployed
5. Retired
6. In School
7. Keeping House
8. Other
9. No Answer

However, it was only necessary to measure the differences between respondents that were working and not working. This could be done easily by transforming the old variable into a new variable with only the categories “Working” and “Not Working.” For our purposes the “Working” category includes those that answered option 1 and 2, the “Not Working” category includes those that answered options 3, 4, 5, 6, 7, and 8. Because the responses 0 and 9 are neither “Working” nor “Not Working” we will keep them in their original state. Following is the procedure to complete this step in SPSS.

SPSS Procedure:
1. Open SPSS
2. Run a frequency distribution for variable to be transformed (for this demonstration use “wrkstat”).
3. Verify the numeric values of the attributes for the variable to be transformed. (See SPSS Exercise 1>SPSS Interface>Step 8.).
4. Select Transform>Recode into Different Variables. ” This will; cause a window to popup similar to that in Figure 3.1.
5. Select the variable to be transformed and move it to Numeric Variable -> Output Variable panel. See Figure 3.1.

6. In the third panel under “Output Variable” give the variable about to be created a new name. Use the base of the original variable name and add an “R” to the end of it (eg wrkstat becomes wrkstatR). See Figure 3.1.

7. Click the “Change” button and then the “Old and New Values” button in the bottom of the second panel and a new window will pop up similar to that in Figure 3.2.

8. In the “Old Value” panel on the left side of the window and enter the new values assigned to the old values on the right side of the window “New Value.” After entering each old and new value press the add button on the panel on the right. When finished, the window should look similar to that that in Figure 3.2. Note that it is possible to transform one value at a time by clicking the “Value” button, or to enter a series of sequential values using the “Range” button.

9. After all values have been entered press “Continue.” Doing this will revert to the screen in Figure 1, press the okay button. This will cause an Output window to pop up, ignore this for now and go to the data set on Variable View.

10. The new variable created is at the bottom of the data set but notice that information is missing in the “Label,” “Value,” and “Missing” cells.
   a. Click in the “Label” cell and enter a rough approximation of the question being asked for the new variable. In this example something like “Recoded Labor Force Status” will suffice.
   b. Click in the “Value” cell and a window similar to the one in SPSS Exercise 1 > Figure 1.2 will pop up. Keep in mind that the numeric value is inserted in the “Value” box and in the “Label” box the description of the value is inserted. In this example “1” would be entered in the “Value” box and “Working” in the “Label” box.
   c. Click in the “Missing” cell, select “Discrete Missing Values” button and enter the values associated with the “Missing” attributes, in this case “0” for “NAP” (Not Applicable) and “9” for “NA” (No Answer).

11. Run a frequency distribution for the new variable, wrkstatR. Verify that the transformation was completed correctly and that the new variable is properly labeled.

12. **Save the data set.**

**Assignment:**

1. Transform the variable “Age” into a new variable that has the age categories “18-35”, “36-65”, and “66-89” where 18-35=1, 36-65=2, and 66-89=3.

2. Transform “Relig” into a new variable with “Christian” and “Non Christian” attributes. Christian can have the new value 1 and Non-Christian the new value 2. For the purpose of this assignment Protestants, Catholics, Orthodox Christians, and Christian are Christians. Every other attribute (Excluding DK, NA, and NAP) will be recoded as Non Christians
3. Transform the variables EMPATHY2, EMPATHY4, and EMPATHY5 into new variables where the direction of the values is “flipped.”
   a. You will notice that for the other four empathy values the higher the value the more empathetic a person is yet for the variables EMPATHY2, EMPATHY4, and EMPATHY5 the opposite is true.
   b. Recode this variable so that a high number indicates a high level of empathy. That is, the more empathetic a person’s response is the higher their score on that item should be.
   c. If an attribute is valued as 5 it should be recoded as 1 (if 4 = 2, 3 = 3, 2 = 4, 1 = 5).

4. Make a frequency distribution table for the variable AgeR.

5. Write a report where you:
   a. Describe what it means to transform/recode a variable.
   b. Discuss any problems encountered while completing the assignment and how they were overcome.
   c. Analyze the table made for AgeR
   d. Include the output and the table produced
Figure 3.1.

Figure 3.2.