Fall 2012 – LP2

Course Assignments
for

Information Visualization
4DV300 – Fall 12

1st assignment

Deadline for this assignment is Nov 14, 2012.

Task 1 *Read the article*
Each one of you should read the online article *Perception in Visualization* by C.Healey (see source below). You are encouraged to 'play' with the applets found on the site as they might help you understand some of the key points presented there. This article might help you solving the other assignments. After reading, answer the following questions related to the article:

1. Describe what *preattentive processing* means and discuss in your own words how it can be helpful for making a good visualization environments?

2. What strategy can be used to show multiple data objects with different attribute values simultaneously in a single image? What visual feature is favored in case of boundary detection?

3. Explain at least two cases where motion is usually used in visualization environments. Which are the most important motion properties? Which motion property would you consider as most useful for preattentive processing?

Article URL: `http://www.csc.ncsu.edu/faculty/healey/PP/index.html`

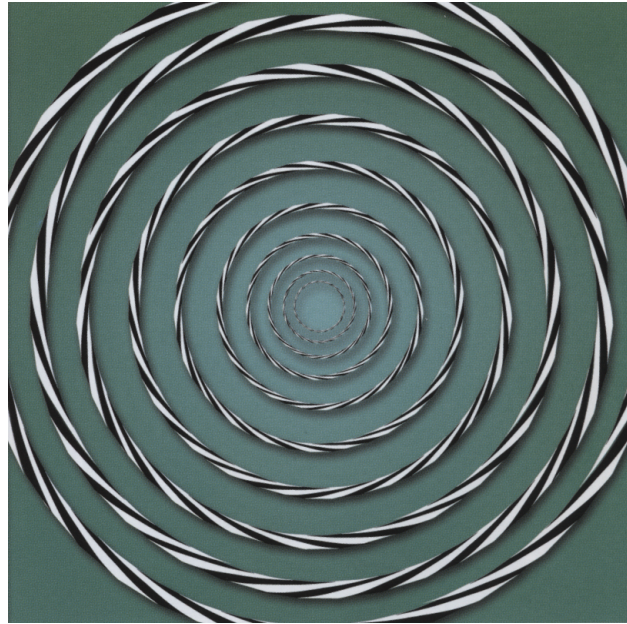**Task 2** *One example for good, and one example for bad*
In this task you will have to find two examples of visualizations, charts or diagrams. One of them should depict a good use of perception theory and one should present a bad use of perception theory. You should write a short explanation about both of them and discuss the reasons why you think they present good or bad examples respectively. You can take the samples from anywhere you like (web, books, magazines, etc.).
Note: Do not forget to reference your examples!

Task 3 *Optical illusions*

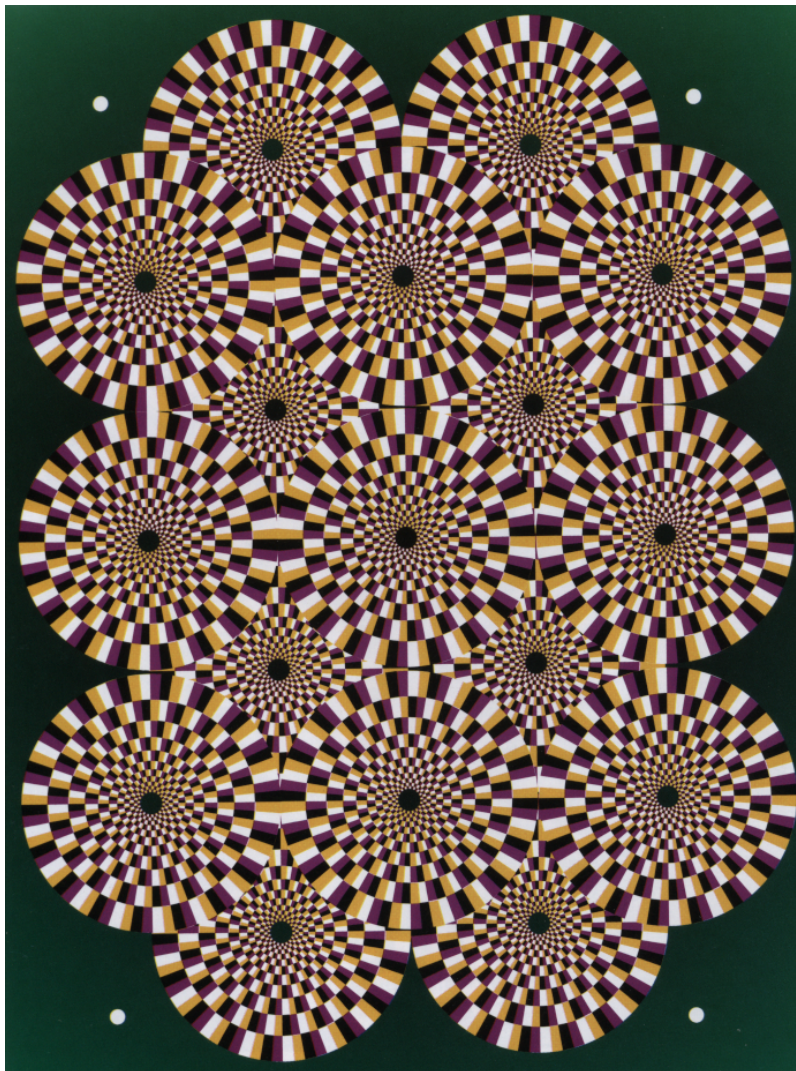Answer the questions regarding the images below them:

1. Are the circles consistently arranged around a common center point? Explain your answer!

2. Which one of the middle circles looks bigger? Explain your answer!

3. The circles seem to rotate! Why?

Please prepare a report with your results and upload it in Blackboard by the given deadline!
Note: Include the course code in the email subject field (4DV300) if you have any questions about the assignments.