**Question 7.1** Give an example of a situation where visualization is appropriate, following the arguments discussed in lecture and in the textbook (the example cannot be the same as mentioned in either lecture or textbook).

**Answer:** For load quickly. You can combine multiple images. You can embed them everywhere.

**Question 7.2** Which limitations of static charts can you solve using interactivity?

**Answer:** First limitations: dynamic graphics allow you to more clearly demonstrate the changes that have occurred with the object during the same time or with the addition of new criteria, etc.

Second limitations: Filtering data by characteristics

**Question 7.3** What are the limitations of visualization?

**Answer:** Data visualization tools only show but do not explain.

Also data visualization provides a false sense of security because of its reasoning process.

**Question 7.4** Why are data semantics important for data?

**Answer:** Without certain knowledge, you can make mistakes when visualizing data that will lead to their misperception.

**Question 7.5** Which relationships are defined for two attributes of (a) quantitative, (b) categorical, or (c) ordinal scale?

**Answer:**

1) Compare and sort values.

2) Group, sort and compare values.

3) Group and sort values.

**Question 7.6** Which visual variables are associative (i.e., allow grouping)?

**Answer:** Пол, возраст, страна, город, ВВП, популяция.

**Question 7.7** Which visual variables are quantitative (i.e., allow to judge a quantitative difference between two data points)?

**Answer:** Growth, weight, GDP, population, amount of RAM, HDD capacity.