EXERCISE # 1 – INTRODUCTION TO D3.JS

Submission Deadline: Monday, June, 06th 2016, till 17:00 local time.

GOAL:

The goal of this exercise is to get familiar with the d3.js library (https://d3js.org/).

TEAMWORK

In this exercise, all the team members of a group (according to the published list) will work together. Each group will create one report and submit it once before the deadline.

SUBMISSION

The submission deadline is a firm deadline. Any submission after the due date will be considered a late submission.

Each submission consists of:

- a printed version, submission via the lecture's box (hallway of building 36)
- a pdf submission via e-Mail to infovis-support@cs.uni-kl.de.

Be sure to clearly mention your group number, the participating group members' names and e-mail addresses on the top of the first page.

FEEDBACK

Each group will get feedback only on the printed version of the submission. The handout will be during the lecture on Monday, June 13, 2016.

TASKS

Hint: You do not have to write full text to answer each question, lists with bullet points are also fine.

Task # 1: Get familiar with d3.js

Get familiar with d3.js – a JavaScript library for manipulating documents for combining visualization components. Go to the website (https://d3js.org/) and check the examples.

If you are interested in a video tutorial (German only) you can use the video2brain Tutorial for d3.js on https://www.video2brain.com/de/videotraining/daten-visualisieren-mit-d3-js. Video2Brain tutorials are free after logging in with your RHRK-Account on this webpage: https://www.video2brain.com/de/edu-login.

For only this task no submission is required.

Task #2: Cancer Visualization

Below you can see a table with different types of cancer for women in different age groups. Tables are a nice tool for general questions, but for the following tasks we assume that the user has some specific questions. Develop a suitable visualization (possibly consisting of multiple diagrams) with d3.js, which shows the needed information. Your visualization should help to answer the following questions:

1. How often appears which type of cancer (independent of age group)?
2. What are the types of cancer distributed within one age group?
3. How the changes in the frequency of cancer depend on the age groups?
4. Which one is the major type of cancer? Which one is the rarest?

Females	%					
Site	Children (0-14)	Mid Adults (25-49)	Older Adults (50-74)	Children (0-14)	Mid Adults (25-49)	Older Adults (50-74)
Leukaemias	28.0%	1.6%	1.6%	175	315	1174
Brain	25.8%	2.0%	1.3%	161	393	943
Melanoma	0.8%	8.9%	3.4%	5	1737	2530
Colorectal	1.0%	5.0%	10.7%	6	984	7992
Breast	0.0%	44.6%	34.6%	0	8752	25834
Lung	0.0%	2.9%	12.1%	0	570	8996
Others	43.4%	35.0%	36.4%	277	6852	27164
		100%		**624**	**19603**	**74633**

Your submission must include the following parts:

- Screenshots of your created Visualizations.
- Your **documented** source code with a short report explanation on how to use it.
- A short report on how your visualization can help to answer the questions above.

Hint: you can use jsfiddle.net as an IDE, so no installation is required. Instead of providing the source code as mentioned above you can also provide your unique jsfiddle.net-URL! We recommend to create a user-account, so you can also collaborate easily within you group.