Programming test

The following is a quick check on your programming skills. Start with the first exercise and try to complete as many as possible in one hour. If you wish, you can complete the remaining exercises and state the time it took you to complete them.

If you have any questions, you can contact us at patrick.meidl@isat.ac.at.

General

You may use the technology of your choice. If you need time to setup an appropriate development environment to complete the tasks (e.g. install a programming language and/or libraries), this does not count to the one hour time constraint.

You can implement this as a CGI script or using any web application server. Please include a README file explaining how to run the application/script.

If you have no experience with web development at all, you may implement the code as a command line script that just outputs the HTML to STDOUT.

Tasks

The main data can be found within **data.csv** (separated by semicolon) and **data.sqlite3** (within the "institutions" table). Choose the one that you can handle best, only the last task requires data which can only be found on data.sqlite3 (see below). **The "id" columns within both files match.**

1. Read the data and transform it into an **HTML page** containing a suitable table.

2. Make the data on the page **sortable** by id or country (always ascending order). The page should provide clickable headers for this. If you chose to implement the command line version, make the script sort according to a command line parameter of your choice.

3. Add a column to the table containing geodata. You can find this data within data.sqlite3 (an array encoded as JSON). Use only the first element of the array, extract the **latitude-longitude** pair and add it to each row of the page as an HTML link. Make the link point to the coordinates on Google Maps (see below for how the link has to look like).

Link to Google Maps HREF schema:
`https://maps.google.com?q=<latitude>,<longitude>`