

Genesis Interview Homework (UI/UX)

Please provide any well-commented Javascript source code using the standard libraries of your choice. Commonplace and well-tested libraries are preferred to exotic ones.

Problem

Construct an interface for displaying a simple table, represented as a CSV file. During your in-person interview, we will provide a CSV file for you to demonstrate your code. It will conform to the following specifications: (i) the first row contains only titles, as strings; (ii) all other rows contain numerical or text data; and (iii) columns are homogeneous (*i.e.*, not mixed numerical and text data). The interface should be as user-friendly, efficient, and intuitive as possible. Support the following functionality:

1. The table may have lots of rows, so provide either pagination or scrolling; it does not have lots of columns. Next to each row or data, display the *original* row number (with the header counting as row 0).
2. Preserving rows, allow for the table to be sorted (by a variety of methods of your choice) by a particular column; sorting methods should be appropriate for the column type.
3. Preserving rows, allow for the table to be filtered (by a variety of methods of your choice) by a particular column; filtering methods should be appropriate for the column type. Text filtering should include at least one wildcard-based (*i.e.*, pattern matching) option.
4. Allow for multiple filters to be applied at once, but the interface need not allow for multiple-column sorting.
5. Display (in any manner) summary statistics for a selected column including, but not limited to count and range; for numerical columns, also display sum, arithmetic mean, and any other interesting statistics of your choice.
6. When hovering over a particular cell, identify its row number in the *current* display. When hovering over column names, identify the the column type and which filtering or sorting methods are currently being applied to the column.

Extra Credit: Allow for columns to be reordered, and to be added to or removed from the display. Also, augment the interface with any graphical visualizations you find interesting, useful, or appropriate.