Tabular Text Sorter

# Summary

The goal it come up with a system design for a fictional product which provides the ability to sort tabular textual data. The requirements call for a multi-user system which can be used by enterprises of all sizes.

There is no specific format or structure (though diagrams are always great for discussion) for providing this design as we will talk you through the various aspects of the problem and discuss it in detail. There are multiple ways to design this system and we would be looking to understand the reasoning behind your choices.

# User scenarios

## Inputting data in the application for processing

The user should be able to pass in the data to the application and specify which column needs to be used for sorting. You need to think about what sort of input interface makes the most sense and be able to reason why.

## Viewing status of a submission

The user should be able to view details of any requests he has submitted and check what their status is.

## Obtaining results

The user should be to retrieve the results of a request and save the sorted output

# Administrator scenarios

## Viewing current processing queue

An administrator should be able to view the current and historical requests and their statuses. He should not be able to download results of any other user’s request.

# Architectural requirements

* The client must be browser based.
* The actual processing (sorting) should be done by server based processes.
* The application must be able to cope with a peak of 10 concurrent users but be able to deal with a larger number of concurrent users without requiring architectural change.
* The processing component must be able to process requests in parallel.
* The maximum expected input is up to 10 MB. However, the application should be able to handle bigger inputs by a reasonable margin and future versions are likely to be required to handle over 100 MB.
* The application must follow standard usability guidelines.