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Project Proposal: Prototype – Online Tool for Creating Visualization of User Supplied Data

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Introduction

My proposal is to create a prototype web-based visualization tool in which the user can upload raw data (in the form of a CSV file), customize which data to use, and produce either a graph or table that can be filtered or otherwise interacted with.

Prototype Format and Tools Used

The prototype will be accessible from any modern web browser and will consist of one or more web pages created using any or all of the following: HTML and/or PHP, CSS and JavaScript. For visualization functionality, I expect to use D3.js or a similar JavaScript based visualization library.

Wish List

With the idea of a finished product in mind, I have compiled a wish list of features I'd like the app to have (how many of these will be possible to implement in the prototype remains to be seen):

- Interface for users to upload a CSV file of their own data
- Interactive checklist with which the users can choose which columns of the source data will and will not be displayed
- Function to create a sortable and filterable table of the users' data
- Customizable graphing feature giving users a choice of which type of graph they would like to use
- Ability to download the finished product (as CSV for tables or SVG for graphs)