Gro Intelligence UI/UX Developer Problem

Requirements

As a user, I would like to look at the trends of product quantity with certain crops in one or more countries. (e.g. Product Quantity (corn) - Kenya (2000-2010), and / or Product Quantity (wheat) - Ethiopia (2005 - 2012))

In this exercise, you would build a simple UI widget to generate data series with selected regions and crops.

What does "data series" mean?

Each "data series" will represent a unique <region, crop> pair. If plotting with a line chart, such <region, crop> pair will be displayed as a single line.

How will <region, crop> pairs be generated?

For example,
- If user selects one region (Kenya), one crop (wheat), the permutation will be:
  <Kenya, Wheat>
- If user selects two region (Kenya, Ethiopia), and two crops (corn, wheat), the permutations will be:
  <Kenya, Corn>,
  < Kenya, Wheat>,
  <Ethiopia, Corn>,
  <Ethiopia, Wheat>

However, if user chooses to group multiple regions or crops, the generated pairs would be different. For example,
- If user combines two regions (Kenya, Ethiopia), and selects one crop (corn), the results should be:
  <Kenya + Ethiopia, corn> (instead of 2 separate data series)

Technical Specifications
- Please implement this data series generator based on provided mockups (01.jpg)
- The look and feel of dropdown widget can be found in 02.jpg
- Once region/crop is selected, the checkbox before selected item should be highlighted, and the select text should be updated accordingly (02.jpg)
- User should be able to turn on or turn off the "combine" mode for region and crop selection (03.jpg)
- You should also implement the **getPermutations**() function behind the "Generate" button based on the rule mentioned above
- After clicking "Generate" button, all permutations should be listed on the page (04.jpg), and each of them should be assigned with a color (the full list of color can be found in color.jpg)
- AngularJS is preferred but not required.

For "getPermutation()" function
- Please consider the time and space cost
- Please include a unit test for your solution
- (optional) Consider expanding your solution, so it would be able to take more than two
data dimensions. (e.g. <importer, exporter, crop>)

Resources

- Google web font: Roboto (http://www.google.com/fonts/specimen/Roboto)
- Icon font: Entypo icon font (http://www.entypo.com/) (But it's fine to use image)
- PSD file is provided with attachment