Project 6

The purpose of project 6 is for you to design a webpage that uses controls such as radio buttons, text boxes, etc. When the page loads, it should show a list of all 50 states (a Project6.html file is provided for you so that you don't have to type all the names). The page should have the controls shown below:

Note: The background color is not important (pick whatever you like). The Font drop down box has the options of Arial (shown), Times New Roman (not shown), and Courier New (not shown).

The main idea is that the user can pick any font, font size, filter of min and max length, and filters of no A, no E, and/or no O and the list that will display will satisfy all the selections. The default when the page loads is 20px and in Arial font. This is why the list appears the way it does.

Below is a sample selection to help you understand how it should work. **Your page should work with any combination of user input and correctly show a list of states that satisfy all the conditions.**

Alabama Alaska Arizona Arkansas California Colorado Connecticut Delaware Florida Georgia Hawaii Idaho Illinois Indiana Iowa Kansas Kentucky Louisiana Maine Maryland Massachusetts Michigan Minnesota Mississippi Missouri Montana Nebraska Nevada New Hampshire New Jersey New Mexico New York North Carolina North Dakota Ohio Oklahoma Oregon Pennsylvania Rhode Island South Carolina South Dakota Tennessee Texas Utah Vermont Virginia Washington West Virginia Wisconsin Wyoming

Controls

- 20px
- 25px
- ● 30px

Font: Arial ▼

Minimum Length
Maximum Length

update

☐ Exclude words with 'A'
☐ Exclude words with 'E'
☐ Exclude words with 'O'

Note: All that happened here was the font size increased as soon as I selected 30px. This is a radio button, so only one font size can be active at a time.

Alabama Alaska Arizona Arkansas California Colorado Connecticut Delaware Florida Georgia Hawaii Idaho Illinois Indiana Iowa Kansas Kentucky Louisiana Maine Maryland Massachusetts Michigan Minnesota Mississippi Missouri Montana Nebraska Nevada New Hampshire New Jersey New Mexico New York North Carolina North Dakota Ohio Oklahoma Oregon Pennsylvania Rhode Island South Carolina South Dakota Tennessee Texas Utah Vermont Virginia Washington West Virginia Wisconsin Wyoming

Controls

- 20px
- 25px
- ● 30px

Font: Courier New ▼

Minimum Length
Maximum Length

update

☐ Exclude words with 'A'
☐ Exclude words with 'E'
☐ Exclude words with 'O'

Note: I used the drop down box to select Courier New. Notice the font changed as soon as I made the new selection.

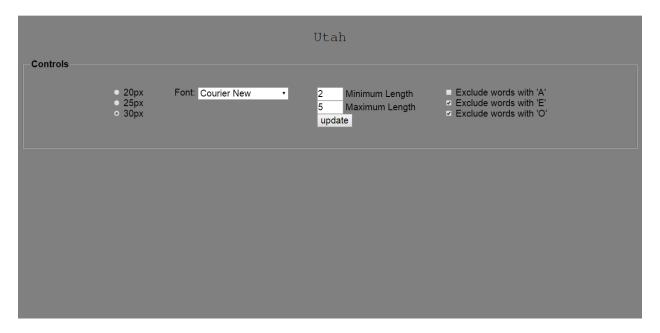Idaho Iowa Maine Ohio Texas Utah

Controls

- 20px
- 25px
- 30px

Font: Courier New

2   Minimum Length
5   Maximum Length
update

☐ Exclude words with 'A'
☐ Exclude words with 'E'
☐ Exclude words with 'O'

Note: Up to this point, no filters have been applied and that is why all 50 states showed up. After entering 2 and 5 in the min and max text box **and** clicking the update button, only states that have a min of 2 characters and a max of 5 characters show up. To make the coding easier you can assume that we will always enter two numbers in the min and max box and immediately click the update button once after entering the numbers. Therefore, you don't have to worry about what will happen if one or both of the numbers are missing when update is clicked, what if numbers are entered and the button is not clicked, or what to do in situations when the min > max.

If at this point, I was to change the font size or the font, the list would be the same six states but the appearance would change to reflect my selection (i.e. different font size or font).

Idaho Iowa Ohio Utah

Controls

- 20px
- 25px
- ● 30px

Font: Courier New ▾

2   Minimum Length
5   Maximum Length
[update]

- ☐ Exclude words with 'A'
- ☑ Exclude words with 'E'
- ☐ Exclude words with 'O'

Note: All that happened here was I just clicked on the `Exclude words with 'E'` checkbox (I did not have to click the update button) to get the new list. The list is now missing Maine and Texas (they both have an e). Don't forget the big picture, which is that the list is displayed exactly according to all of my selections at this time (Font size of 30px, Courier New, min of 2 and max of 5 characters, and no letter E).

Utah

Controls

- 20px
- 25px
- ● 30px

Font: Courier New ▾

2   Minimum Length
5   Maximum Length
[update]

- ☐ Exclude words with 'A'
- ☑ Exclude words with 'E'
- ☑ Exclude words with 'O'

Note: I clicked on the `Exclude words with 'O'` checkbox, while keeping the check on the `Exclude words with 'E'`. Now only Utah shows up. What would happen if I click on `Exclude words with 'A'`? You guessed it, nothing should show up.

Alabama Alaska Arkansas Hawaii Indiana Kansas Maryland Michigan Utah
Virginia

Controls

- 20px   Font: Courier New ▾   2 Minimum Length   ☐ Exclude words with 'A'
- 25px   10 Maximum Length   ☑ Exclude words with 'E'
- 30px   update   ☑ Exclude words with 'O'
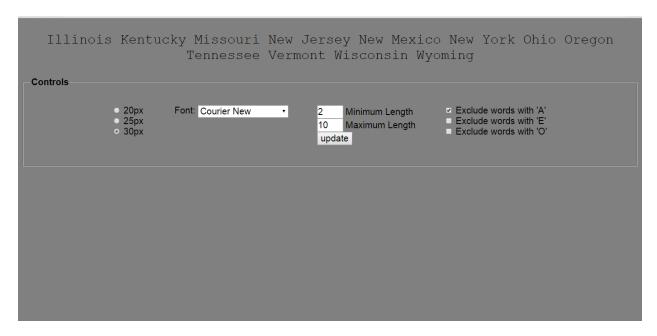
Note: I changed the max text box from 5 to 10 and after clicking the update button, the new list shows up. Note how all criteria are satisfied. The list showing up is 30px, Courier New, and only has states with names that have no fewer letters than 2 but no more than 10. What will happen if now I click on the Exclude words with A?

Controls

- 20px   Font: Courier New ▾   2 Minimum Length   ☑ Exclude words with 'A'
- 25px   10 Maximum Length   ☑ Exclude words with 'E'
- 30px   update   ☑ Exclude words with 'O'

Note: Nothing shows up now! There are no states missing a, e and o with 2 to 10 letters.

Kentucky New Jersey Tennessee

Controls

- 20px
- 25px
- ● 30px

Font: Courier New ▾

2 Minimum Length
10 Maximum Length
[update]

- ☑ Exclude words with 'A'
- ☑ Exclude words with 'E'
- ☑ Exclude words with 'O'

Note: I unchecked `Exclude words with 'E'`. Now I have the list shown above.

Illinois Kentucky Missouri New Jersey New Mexico New York Ohio Oregon
Tennessee Vermont Wisconsin Wyoming

Controls

- 20px
- 25px
- ● 30px

Font: Courier New ▾

2 Minimum Length
10 Maximum Length
[update]

- ☑ Exclude words with 'A'
- ☐ Exclude words with 'E'
- ☑ Exclude words with 'O'

Note: I unchecked `Exclude words with 'O'`. Now I have the list shown above, notice none of them have an A. How can we get just Maryland to show up? Well it has no e and no o and 8 letters. Let us try that!

Arkansas Maryland Michigan Virginia

Controls

- 20px
- 25px
- 30px

Font: Times New Roman ▾

8 Minimum Length
8 Maximum Length
update

☐ Exclude words with 'A'
☑ Exclude words with 'E'
☑ Exclude words with 'O'

Note: The order does not matter, but to get the list above: you need to check the `Exclude words with 'E'`, `Exclude words with 'O'`, and make sure both min and max are 8 (click update as soon as you change them). Just for fun, I also changed the font and the font size. After doing all of that the list appears as shown above. Based on what we have available as filters, it is not possible to get only Maryland to show up.

As with your previous project, this is an event driven webpage. There is no "end". You need to code for the `onchange` event of the radio buttons, the drop down box, and the checkboxes, and the `onclick` for the update button. Make good use of functions (you can use any built-in string or array method) and comment your code. Make sure it appears like the sample shown in this document. It should not be case sensitive, so that means `Exclude words with 'A'` will not allow a state to show up whether it has an `A` or an `a`. You cannot make the project easier by altering my Project6.html file to have all the states be in all caps or all lower case. It should only have the first letter capitalized. For example, Maryland….not maryland or MARYLAND. Place your CSS in a separate file and have the HTML and JavaScript in one file. Make sure your name is in the file name, example: SmithJohnProject6.html.