



PELOTON CYCLE FRONT END TEST TASK

BACKGROUND

Given a finite number, find all the possible strings that can be generated by using the alpha encoding found on a telephone keypad.

EXAMPLE

If the input values were:

234

Then the app should return:

adg,adh,adi,aeg etc.

APP REQUIREMENTS

Create a UI modeled after the images at the end of this document.

Make the UI clickable where:

- Clicking numbers builds a combination
- Clicking the enter arrow computes the possible permutations
- Clicking the reset arrow clears the combination
- The JavaScript logic should be well-structured
- No images may be used

BONUS

- Use AngularJS
- Using the following .ogg files, have each button play its corresponding tone:

```
var tones = {
  0 : 'http://upload.wikimedia.org/wikipedia/commons/2/2d/Dtmf0.ogg',
  1 : 'http://upload.wikimedia.org/wikipedia/commons/b/bf/Dtmf1.ogg',
  2 : 'http://upload.wikimedia.org/wikipedia/commons/7/7d/Dtmf2.ogg',
  3 : 'http://upload.wikimedia.org/wikipedia/commons/2/28/Dtmf3.ogg',
  4 : 'http://upload.wikimedia.org/wikipedia/commons/9/9f/Dtmf4.ogg',
  5 : 'http://upload.wikimedia.org/wikipedia/commons/1/1c/Dtmf5.ogg',
  6 : 'http://upload.wikimedia.org/wikipedia/commons/7/7b/Dtmf6.ogg',
  7 : 'http://upload.wikimedia.org/wikipedia/commons/9/9f/Dtmf7.ogg',
  8 : 'http://upload.wikimedia.org/wikipedia/commons/f/f7/Dtmf8.ogg',
  9 : 'http://upload.wikimedia.org/wikipedia/commons/5/59/Dtmf9.ogg'
};
```



Click numbers to build a combo.

State 1: Initial State



Click numbers to build a combo.

State 2: Button Active State



Click ↩ to compute the combo's possibilities.

2 3 4

State 3: Combination State



Click ↺ to reset inputs.

2 3 4

27 possibilities

adg	adh	adi	aeg	aei
aei	afg	afh	afi	bdg
bdh	bdi	beg	beh	bei
bfg	bfh	bfi	cdg	cdh
cdi	ceg	ceh	cei	cfg
	cfh	cfi		

State 4: Computed State