Andela

Andela Nigeria Cycle 42 Technical Challenge.

Instructions for submission
Create an account on codepen.io and attempt **any 1** of the questions. You are required to make use of **only** HTML, CSS and JavaScript, and **NO FRAMEWORKS**. Please submit via this form before **4pm on Monday, February 4th, 2019.**

Question 1

Luhn's Algorithm	
Context	The Luhn algorithm is a simple checksum formula used to validate a variety of identification numbers, such as credit card numbers and Canadian Social Insurance Numbers.
Task	Given a number determine whether or not it is valid per the Luhn formula. Example: 4539 1488 0343 6467 is Valid Conditions ● Integer of length 1 or less is not valid. ● Spaces are allowed in the input, but they should be stripped before checking. ● All other non-digit characters are disallowed.
UI Design	● A text input element that takes in the integers ● A button to run the program. ● A div to display the result.

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Question 2

Largest series Product	
Context	Find the largest product of a series of digits
Task	Given a string of digits, calculate the largest product for a contiguous substring of digits of length n. For example, for the input '1027839564', the largest product for a series of 3 digits is 270 (9 * 5 * 6), and the largest product for a series of 5 digits is 7560 (7 * 8 * 3 * 9 * 5). Note that these series are only required to occupy *adjacent positions* in the input; the digits need not be *numerically consecutive*. For the input '73167176531330624919225119674426574742355349194934', the largest product for a series of 6 digits is 23520.
UI Design	● 2 input text field, One to enter the list of integers and a second the nos of series to find the highest product ● A div to display the result ● A button to check the result.

Question 3

Spiral Matrix	
Context	Create a Spiral matrix of a particular size
Task	Given the size, return a square matrix of numbers in spiral order. ● The matrix should be filled with natural numbers, starting from 1 in the top-left corner, increasing in an inward, clockwise spiral order, like these examples. ● A spiral matrix of size 4 ● 1 2 3 4 12 13 14 5 11 16 15 6 10 9 8 7
UI Design	● 1 input to take the size of the matrix ● A button to calculate ● A div to display the result