# Problem 3 – Affine Cipher

Write a PHP script to **encrypt a matrix** of strings **using affine cipher** on the **capital letters** of the **Latin alphabet**. The formulae of the cipher is **E(x) = (k\*x + s) % m** where **m** is the size of the current alphabet, **k** and **s** are the first and second keys of the cipher, **x** is the position of the letter (starting from 0) in the alphabet. Special characters should not be ciphered. You should print out a **HTML table** holding the ciphered text.

### Input

The input comes as **JSON-encoded matrix** and will be read from an **HTTP GET** **request** holding a parameter named **jsonTable**. The first row of the matrix holds the text to be ciphered as **array of strings**. The second row of the matrix holds an **array of integers** which hold the values of **the two keys**.The input data will always be **valid** and in the format described. There is no need to check it explicitly.

### Output

The output should be a **HTML table** that shows the ciphered text in the matrix (each word on a separate row, each letter in separate cell), colored by changing the cells' background to **#CCC** (see the examples below) where the cells of the matrix are not empty. Ensure all your cell data is correctly encoded as HTML. **Follow strictly the sample HTML output format below.**

### Constraints

* The input **JSON string** will always contain an array of arrays holding an array of strings and array of integers having.
* The key **k** will be in the range [1…9].
* The key **s** will be in the range [0…9].
* The minimal **size** of the html table will be 1 x 1.
* Allowed working time: 0.2 seconds. Allowed memory: 16 MB.

### Examples

|  |  |
| --- | --- |
| **Input** | **Output - Visualized** |
| [["god","save","the","queen"],[7,2]] |  |
| **Output** | |
| <table border='1' cellpadding='5'><tr><td style='background:#CCC'>S</td><td style='background:#CCC'>W</td><td style='background:#CCC'>X</td><td></td><td></td></tr><tr><td style='background:#CCC'>Y</td><td style='background:#CCC'>C</td><td style='background:#CCC'>T</td><td style='background:#CCC'>E</td><td></td></tr><tr><td style='background:#CCC'>F</td><td style='background:#CCC'>Z</td><td style='background:#CCC'>E</td><td></td><td></td></tr><tr><td style='background:#CCC'>K</td><td style='background:#CCC'>M</td><td style='background:#CCC'>E</td><td style='background:#CCC'>E</td><td style='background:#CCC'>P</td></tr></table> | |