

Clockwise Cipher

Source: Edabit

Published by [Mubashir Hassan](#) in [JavaScript](#)

Algorithms, cryptography, logic, strings

In **Clockwise Cipher**, encoding is done by placing message characters in the corner cells of a square and moving in a clockwise direction.

Create a function that takes an argument `message` and returns the **encoded message**.

There are some variations on the rules of encipherment. One version of the cipher rules is outlined below:

```
message = "Mubashir Hassan"
```

```
clockwiseCipher(message) → "Ms ussahr nHaaib"
```

Step 1: Form a square large enough to fit all the message characters. Given message can fit in a 4 x 4 square.

Step 2: Starting with the top-left corner, place message characters in the corner cells moving in a clockwise direction. After the first cycle is complete, continue placing characters in the cells following the last one in its respective row/column. When the outer cells are filled, continue for the remaining inner squares:

M	s		u
s	s	a	h
r		n	H
a	a	i	b

Step 3: Return encoded message **Rows-wise**:

```
eMessage = "Ms ussahr nHaaib"
```

Example for a 5 x 5 Square

```
[ 1  5  9 13  2]
[16 17 21 18  6]
[12 24 25 22 10]
[ 8 20 23 19 14]
[ 4 15 11  7  3]
```

Examples

```
clockwiseCipher("Mubashir Hassan") → "Ms ussahr nHaaib"
```

```
clockwiseCipher("Matt MacPherson") → "M ParsoMc nhteat"
```

```
clockwiseCipher("Edabit is amazing") → "Eisadng tm i zbia a"
```

Notes

- Fill up any unused cells with a space character.
- Message can contain spaces and special characters.