1. Take a string as an input and check whether the string is a palindrome or not. An example of palindrome is "ABBA".

(i) To find whether a given string is palindrome or not.

```
public static boolean isPalindrome( String word )
{
        //returns true if word is a palindrome
        //returns false if word is not a palindrome
}
```

(ii) Now left rotate the given string by one character each time and check whether the rotated string is a palindrome or not. Find out the minimum no. of rotations required to find the next palindrome.

An example with "ABBA" is as follows:

A	B	B	A

Initial

B	B	A	A

1st rotation: Still not a palindrome

B	A	A	B
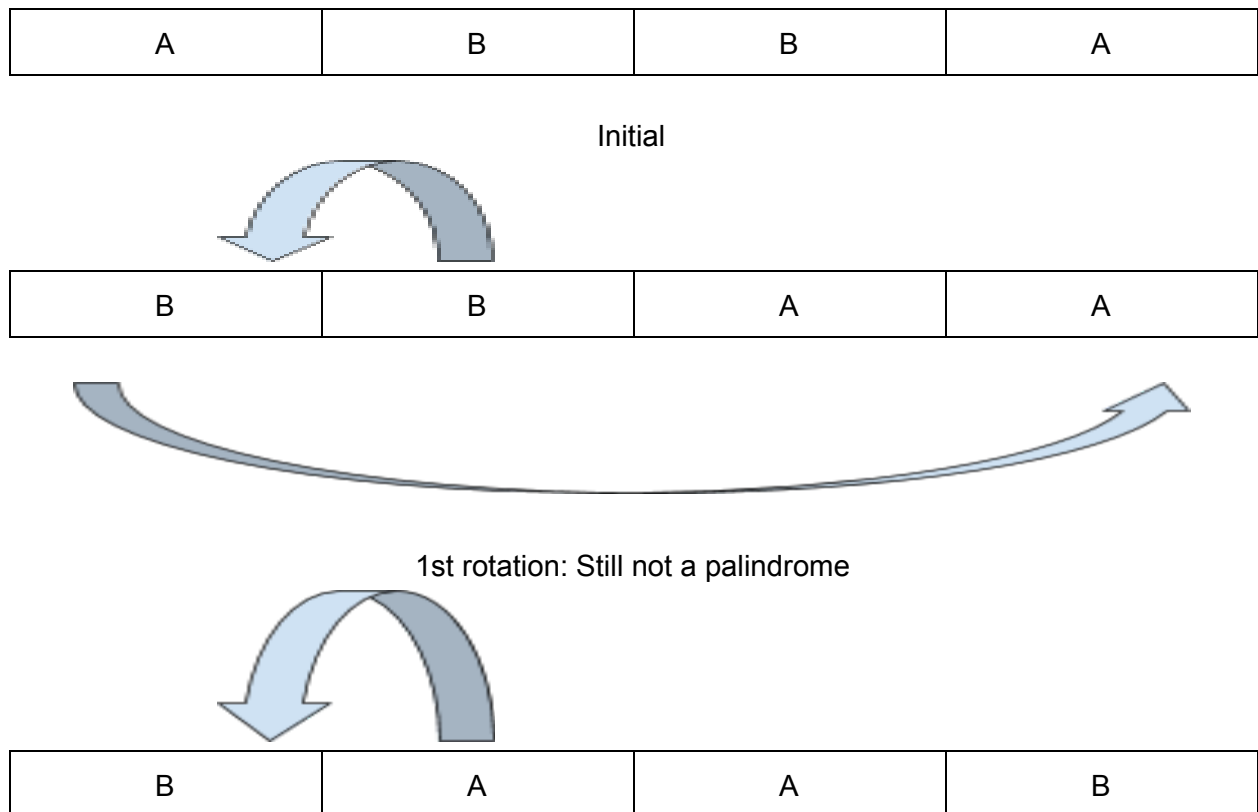
2nd rotation: Though not same as the given string, still a palindrome and it is obtained with minimum rotation. So answer is 2 rotations.
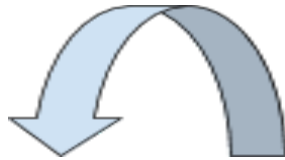
A	A	B	B

3rd rotation: Still not a palindrome. This is not the answer. (Just to demonstrate you, we can get another palindrome by rotating more)

A	B	B	A

4th rotation: A palindrome but still not a valid answer. As, for this palindrome we needed 4 iterations and only with 2 iterations we could get a palindrome.