

## Home Assignment <4>: String Palindrome

### Learning Objective:

To determine whether a given input String reads the same forwards and backwards, indicating whether it is a palindrome or not

### Expected Completion Time:

Best Case: 10 minutes

Average Case: 15 minutes

### Assignment Details:

- Build a logic to find the given string is palindrome or not:  
String word = "Madam";  
Expected output: "Madam"
- If both the input text and output text are equal, the given String is a Palindrome. If they are not equal, the String is not a Palindrome

### Assignment Requirements:

- Input the String.
- Initialize an empty string to store the reversed characters.
- Convert the string into a character array.
- Iterate the characters using for loop
- Inside the loop, append the character array to the reversed string.
- Compare the original value with the reversed string to determine whether the given string is Palindrome or not.

### Hints to Solve:

- Use reverse for loop to iterate from the last character of character array to the first character
- Use an appropriate method to compare both the original and reversed strings

### Reference Links:

String in Java - [Oracle Doc](#)

### Expected Outcome:

Upon completion, you should be able to:

- Understand the logic of Palindrome
- Learn how to reverse a String using control statements