Experiment 3.1

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Subject Name: Java Lab
Subject Code:21CSH-319

1. **Aim:** Create a palindrome creator application for making a longest possible palindrome out of given input string.

2. **Objective:**

   • To learn about concept of HashMap in java.

   • To learn about concept of String in java.

3. **Algo. /Approach and output:**

```java
import java.util.Scanner;
public class  palindroome {
   public static void main(String[] args) {
      Scanner scanner = new Scanner(System.in);
      System.out.print("Enter a string: ");
      String input = scanner.nextLine();

      String longestPalindrome = createLongestPalindrome(input);
      System.out.println("Longest Palindrome: " + longestPalindrome);
   }
   public static String createLongestPalindrome(String input) {
      if (input == null || input.length() == 0) {
         return "";
      }
      StringBuilder stringBuilder = new StringBuilder();
      stringBuilder.append(input);
```

```
        String reversedInput = new StringBuilder(input).reverse().toString();
        stringBuilder.append(reversedInput);
        return stringBuilder.toString();
    }
}
```

Output:-

```
● PS C:\Users\pavilion\Downloads\JavaLAb> cd "c:\Users\pavilion\Downloads\JavaL
  Enter a string: shashi
  Longest Palindrome: shashiihsahs
  PS C:\Users\pavilion\Downloads\JavaLAb> ▯
  Share Code Link   Explain Code   Comment Code   Find Bugs   Code Chat   Blackbox   ☕ Java: Rea
```

```
  1 error
● PS C:\Users\pavilion\Downloads\JavaLAb> cd "c:\Users\pavilion\Downloads\JavaLAb\" ;
  Enter a string: swatimam
  Longest Palindrome: swatimammmamitaws
  PS C:\Users\pavilion\Downloads\JavaLAb> ▮
  Share Code Link   Explain Code   Comment Code   Find Bugs   Code Chat   Blackbox   ☕ Java: Ready   Se
```