**Assignment 8**

**1. Palindrome Check:**

public class PalindromeCheck {

public static boolean isPalindrome(String str) {

int left = 0, right = str.length() - 1;

while (left < right) {

if (str.charAt(left) != str.charAt(right)) {

return false;

}

left++;

right--;

}

return true;

}

public static void main(String[] args) {

String str = "racecar";

if (isPalindrome(str)) {

System.out.println(str + " is a palindrome.");

} else {

System.out.println(str + " is not a palindrome.");

}

}

}

**2. Reverse a String:**

public class ReverseString {

public static String reverse(String str) {

StringBuilder reversed = new StringBuilder();

for (int i = str.length() - 1; i >= 0; i--) {

reversed.append(str.charAt(i));

}

return reversed.toString();

}

public static void main(String[] args) {

String str = "hello";

String reversedStr = reverse(str);

System.out.println(reversedStr);

}

}

**3. Remove a Substring:**

public class RemoveSubstring {

public static String removeSubstring(String str, String substring) {

int index = str.indexOf(substring);

if (index != -1) {

return str.substring(0, index) + str.substring(index + substring.length());

}

return str;

}

public static void main(String[] args) {

String s1 = "J%A$V@A";

String s2 = removeSubstring(s1, "%$@");

System.out.println(s2);

}

}