

1. Write a program to Input a word and check if it is a palindrome

- create a method `rev(String s)` which returns the reverse of `s` without using built-in function.

- check if the inputted word is a palindrome

- print the result

eg: madam, malayalam

```
import java.util.Scanner;
```

```
public class Palin {
```

```
    static String rev(String s) {
```

```
        String rev="";
```

```
        for(int i = s.length()-1; i>=0; i--)
```

```
            rev= rev + s.charAt(i);
```

```
        return rev;
```

```
    }
```

```
    public static void main(String[] args) {
```

```
        Scanner sc = new Scanner(System.in);
```

```
        System.out.println("Enter a word :");
```

```
        String s = sc.next();
```

```
        if(s.equalsIgnoreCase(rev(s)))
```

```
            System.out.println("It is a palindrome");
```

```
        else
```

```
            System.out.println("Not a palindrome");
```

```
    }
```

```
}
```

2. Write a program to input a sentence and replace all the blank space (' ') with underscore ('_').

```
import java.util.Scanner;

public class replace {
    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);
        System.out.println("Enter a sentence");
        String s = sc.nextLine();
        char ch;
        int l=s.length();
        String newStr="";
        for(int i=0;i<l;i++){
            ch = s.charAt(i);
            if(ch==' ')
                newStr+='_';
            else
                newStr+=ch;
        }
        System.out.println("New string : "+newStr);
        // Using built-in function
        System.out.println(s.replace(' ','_'));
    }
}
```

3. Write a program to print the index first unique (Non-repeating) character in a string.

```
import java.util.Scanner;
/* Write a program to print the index of first unique (Non-
repeating) character in a string.
* "people"
* p e o p l e
* 0 1 2 3 4 5
* apple
*/
public class uniq {
    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);
        System.out.println("Enter a string :");
        String s=sc.nextLine();
        int index=-1;
        for(int i=0; i<s.length(); i++) {
            char ch = s.charAt(i);
            if(s.indexOf(ch)==s.lastIndexOf(ch)) {
                index = s.indexOf(ch);
                break;
            }
        }
        if(index== -1)
            System.out.println("There are no unique characters.");
        else
            System.out.println("The first unique character is at
index :"+index);
    }
}
```

4. Write a program to split the input sentence into word array, reverse the words, and print the new sentence with all words reversed

```
import java.util.Scanner;

/*
 * Input = I am happy
 * Output = I ma yppah
 */

import static java.lang.String.join;
public class revSentence {

    static String rev(String s) {
        char[] strArray = s.toCharArray();
        String rev="";
        for(int i = strArray.length-1; i>=0; i--)
            rev= rev + strArray[i];
        return rev;
    }

    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);
        System.out.println("Enter the sentence:");
        String s = sc.nextLine();
        String[] words = s.split(" ");

        for (int i=0; i<words.length; i++) {
            words[i] = rev(words[i]);
        }
        String rev = join(" ",words);
        System.out.println(rev);
    }
}
```

5. A simple class to demonstrate the use of static methods
- create a class Player with 2 data member armStrength, name
 - create a function armWrestle which take 2 player object as input
- returns the winner based on the armStrength
- create 2 objects and make them armWrestle xD

```
public class Player {  
  
    int armStrength;  
    String name;  
    static void armWrestle(Player p1, Player p2) {  
        if(p1.armStrength > p2.armStrength)  
            System.out.println(p1.name + " is the WINNER!!!");  
        else if(p1.armStrength < p2.armStrength)  
            System.out.println(p2.name + " is the WINNER!!!");  
        else  
            System.out.println("It is a TIE!!!!");  
    }  
  
    public static void main(String[] args) {  
        Player p1 = new Player();  
        Player p2 = new Player();  
        p1.name = "Aman"; p1.armStrength = 74;  
        p1.name = "Varun"; p1.armStrength = 83;  
  
        armWrestle(p1, p2);  
    }  
}
```