Reverse String

```
package JavaImportantPrograms;
public class ReverseString1 {

	public static void main(String[] args) {
		String a = "Selenium";
		for (int i = a.length() - 1; i >= 0; i--)
		{
			System.out.print(a.charAt(i));
		}
	}
}
```

```
package JavaImportantPrograms;
public class ReverseString2 {

	public static void main(String[] args) {
		String a = "Selenium";

		char [] abc = a.toCharArray();

		for (int i = abc.length- 1; i >= 0; i--)
		{
			System.out.print(abc[i]);
		}
	}
}
```

```
package JavaImportantPrograms;
public class ReverseString3 {

	public static void main(String[] args) {
		String a = "Selenium";

		StringBuffer sb = new StringBuffer(a);
		StringBuffer sb1 = sb.reverse();
		System.out.println(sb1);
	}
}
```

```
	package JavaImportantPrograms;
	public class ReverseString4 {

		public static void main(String[] args) {
			String a = "Selenium";

			StringBuilder sb = new StringBuilder(a);
			StringBuilder sb1 = sb.reverse();
			System.out.println(sb1);

		}
	}
```

```
package JavaImportantPrograms;
```

```
public class ReverseString5 {

	public static void main(String[] args) {
		String a = "Selenium Testing";
		String b[] = a.split(" ");
		String c = "";
		for (int i = 0; i < b.length; i++) {

			for (int j = b[i].length() - 1; j >= 0; j--) {
				c = c + b[i].charAt(j);
			}

			c = c + " ";

		}
		System.out.println(c.trim());//muineleS gnitseT
	}
}
```

```
package JavaImportantPrograms;

public class ReverseString6 {

	public static void main(String[] args) {
		String a = "Selenium Testing";
		String b[] = a.split(" ");
		String c = "";

		for (int i = 0; i < b.length; i++) {
			char[] abc = b[i].toCharArray();

			for (int j = abc.length - 1; j >= 0; j--) {
				c = c + abc[j];
			}

			c = c + " ";

		}
		System.out.println(c.trim());// muineleS gnitseT
	}
}
```

Check ***String is Pallindrome***

```
package JavaImportantPrograms;

public class StringPallindrome1 {

	public static void main(String[] args) {

		String a = "madam";
		String b = "";
		for (int i = a.length() - 1; i >= 0; i--) {
			b = b + a.charAt(i);
		}
		if (a.equals(b)) {
			System.out.println("String is pallidrome");
		} else {
			System.out.println("String is not pallidrome");
		}
	}
}
```

```
package JavaImportantPrograms;

public class StringPallindrome2 {

	public static void main(String[] args) {

		String a = "madam";
		String b = "";
		char abc[] = a.toCharArray();

		for (int i = abc.length - 1; i >= 0; i--) {
			b = b + abc[i];
		}
		if (a.equals(b)) {
			System.out.println("String is pallidrome");
		} else {
			System.out.println("String is not pallidrome");
		}
	}
}
```

```
package JavaImportantPrograms;

public class StringPallindrome3 {

	public static void main(String[] args) {

		String a = "madam";

		StringBuffer sb1 = new StringBuffer(a);
		sb1 = sb1.reverse();
		String rev = sb1.toString();
```

```
                if (a.equals(rev))
                {
                        System.out.println("String is pallidrome");
                } else {
                        System.out.println("String is not pallidrome");
                }

        }
}
```

```
package JavaImportantPrograms;

public class StringPallindrome4 {

        public static void main(String[] args) {

                String a = "madam";

                StringBuilder sb1 = new StringBuilder(a);
                sb1 = sb1.reverse();
                String rev = sb1.toString();

                if (a.equals(rev)) {
                        System.out.println("String is pallidrome");
                } else {
                        System.out.println("String is not pallidrome");
                }

        }
}
```

Reverse Number:

```java
package JavaImportantPrograms;

public class ReverseNumber1 {

	public static void main(String[] args) {
		int a = 12345;
		String b = Integer.toString(a);
		for (int i = b.length() - 1; i >= 0; i--) {
			System.out.print(b.charAt(i));
		}

	}
}
```

```java
package JavaImportantPrograms;

public class ReverseNumber2 {

	public static void main(String[] args) {
		int a = 12345;
		String b = Integer.toString(a);
		char[] abc = b.toCharArray();

		for (int i = abc.length - 1; i >= 0; i--) {
			System.out.print(abc[i]);
		}

	}
}
```

```java
package JavaImportantPrograms;

public class ReverseNumber3 {

	public static void main(String[] args) {
		int number = 12345, reverse = 0;
		while (number != 0) {
			int remainder = number % 10;
			reverse = reverse * 10 + remainder;
			number = number / 10;
		}
		System.out.println(reverse);
	}
}
```

Find Max Number in Array

```
package JavaImportantPrograms;

public class FindMaxNumberinArray1 {

	public static void main(String[] args) {

		int a[] = { 50, 100, 1005, 200, 30 };
		int max = a[0];
		for (int i = 1; i < a.length; i++) {
			if (a[i] > max) {
				max = a[i];
			}
		}
		{
			System.out.println(max);
		}

	}
}
```

```
package JavaImportantPrograms;

import java.util.ArrayList;
import java.util.TreeSet;

public class FindMaxNumberinArray2 {

	public static void main(String[] args) {

		int a[] = { 50, 100, 1005, 200, 30 };
		int max = a[0];

		TreeSet<Integer> t1 = new TreeSet<Integer>();

		for (int i = 1; i < a.length; i++) {
			t1.add(a[i]);
		}

		ArrayList<Integer> arr = new ArrayList<Integer>();
		arr.addAll(t1);
		max = arr.get(arr.size() - 1);

		System.out.println(max);

	}
}
```

```
package JavaImportantPrograms;

import java.util.ArrayList;
import java.util.Collections;
import java.util.TreeSet;
```

```
public class FindMaxNumberinArray3 {

	public static void main(String[] args) {

		int a[] = { 50, 100, 1005, 200, 30 };
		int max = a[0];

		ArrayList<Integer> arr = new ArrayList<Integer>();

		for (int i = 1; i < a.length; i++) {
			arr.add(a[i]);
		}

		Collections.sort(arr);

		max = arr.get(arr.size() - 1);

		System.out.println(max);

	}
}
```

Find Minimum values from Array

```
package JavaImportantPrograms;

public class FindMinimumNumberinArray1 {

	public static void main(String[] args) {

		int a[] = { 50, 100, 1005, 200, 30 };
		int min = a[0];
		for (int i = 1; i < a.length; i++) {
			if (a[i] < min) {
				min = a[i];
			}
		}
		{
			System.out.println(min);
		}

	}
}
```

```
package JavaImportantPrograms;

import java.util.ArrayList;
import java.util.TreeSet;

public class FindMinimumNumberinArray2 {

	public static void main(String[] args) {

		int a[] = { 50, 100, 1005, 200, 30 };
		int min = a[0];

		TreeSet<Integer> t1 = new TreeSet<Integer>();

		for (int i = 1; i < a.length; i++) {
			t1.add(a[i]);
		}

		ArrayList<Integer> arr = new ArrayList<Integer>();
		arr.addAll(t1);
		min = arr.get(0);

		System.out.println(min);

	}
}
```

```
package JavaImportantPrograms;

import java.util.ArrayList;
import java.util.Collections;
import java.util.TreeSet;
```

```
public class FindMaxNumberinArray3 {

	public static void main(String[] args) {

		int a[] = { 50, 100, 1005, 200, 30 };
		int min = a[0];

		ArrayList<Integer> arr = new ArrayList<Integer>();

		for (int i = 1; i < a.length; i++) {
			arr.add(a[i]);
		}

		Collections.sort(arr);

		min = arr.get(0);

		System.out.println(min);

	}
}
```

Find 2nd max , 3rd max or 4th max number from Array

```
package JavaImportantPrograms;

import java.util.Arrays;

public class FindSecondMaxNumberinArray2 {

	public static void main(String[] args) {
		int a[] = { 10, 30, 20, 60, 70, 50 };
		Arrays.sort(a);
		System.out.println(a[a.length - 2]);

	}
}
```

```
package JavaImportantPrograms;

import java.util.ArrayList;
import java.util.Arrays;
import java.util.Collections;

public class FindSecondMaxNumberinArray2 {

	public static void main(String[] args) {
		int a[] = { 10, 30, 20, 60, 70, 50 };
		ArrayList<Integer> arr = new ArrayList<Integer>();

		for (int i = 0; i < a.length; i++) {
			arr.add(a[i]);
		}

		Collections.sort(arr);
		Collections.reverse(arr);

		System.out.println(arr.get(1));

	}
}
```

```
package JavaImportantPrograms;

import java.util.ArrayList;
import java.util.TreeSet;

public class FindSecondMaxNumberinArray3 {

	public static void main(String[] args) {
		int a[] = { 10, 30, 20, 60, 70, 50 };
		TreeSet<Integer> t1 = new TreeSet<Integer>();

		for (int i = 0; i < a.length; i++) {
			t1.add(a[i]);
		}
```

```
                ArrayList<Integer> arr = new ArrayList<Integer>();
                arr.addAll(t1);

                System.out.println(arr.get(arr.size()-2));

        }
}
```

Fibonacci series:

```
package JavaImportantPrograms;

public class FibinacciNumber1 {

	public static void main(String[] args) {
		// Definition:A series of number in which each number (Fibinacci number)
		// is the sum of the two preceding numbers.
		// 0 1 1 2 3 5 8 13 21 34
		int a = 0, b = 1;
		int c;
		for (int i = 0; i < 5; i++) {
			c = a + b;
			System.out.println(c);
			a = b;
			b = c;
		}
	}
}
```

Print event Numbers

```
package JavaImportantPrograms;

public class EvenNumber {

	public static void main(String[] args) {

		for (int i = 0; i < 20; i++) {
			if (i % 2 == 0) {
				System.out.println(i);
			}
		}
	}
}
```

Print Odd Numbers

```
package JavaImportantPrograms;

public class OddNumbers {

	public static void main(String[] args) {

		for (int i = 0; i < 20; i++) {
			if (i % 2 == 1) {
				System.out.println(i);
			}
		}
	}
}
```

Count Upper case Letters in String

```
package JavaImportantPrograms;

public class CountUpperCaseLetter1 {

	public static void main(String[] args) {
		String s = "Welcome to Automation";

		int upper = 0;
		for (int i = 0; i < s.length(); i++) {
			char ch = s.charAt(i);
			if (ch >= 65 && ch <= 90) {
				upper++;
			}
		}

		System.out.println("Uppercase letters Count " + upper);
	}

}
```

```
package JavaImportantPrograms;

public class CountUpperCaseLetter2 {

	public static void main(String[] args) {
		String s = "Welcome to Automation";
		char[] abc = s.toCharArray();

		int upper = 0;
		for (int i = 0; i < s.length(); i++) {

			if (Character.isUpperCase(abc[i])) {
				upper++;
			}
		}

		System.out.println("Uppercase letters Count " + upper);
	}
}
```

Count lower case Letters in String

```
package JavaImportantPrograms;

public class CountLowerCaseLetter1 {

	public static void main(String[] args) {
		String s = "Selenium";

		int lower = 0;
		for (int i = 0; i < s.length(); i++) {
			char ch = s.charAt(i);
			if (ch >= 98 && ch <= 122) {
				lower++;
			}
		}

		System.out.println("lowercase letters Count " + lower);
	}

}
```

```
package JavaImportantPrograms;

public class CountLowerCaseLetter2 {

	public static void main(String[] args) {
		String s = "Selenium";
		char[] abc = s.toCharArray();

		int lower = 0;
		for (int i = 0; i < s.length(); i++) {

			if (Character.isLowerCase(abc[i])) {
				lower++;
			}
		}

		System.out.println("lowercase letters Count " + lower);
	}
}
```

Find Upper case Letter from String

```
package JavaImportantPrograms;

public class FindUpperCaseLetter1 {

	public static void main(String[] args) {
		String s = "Welcome to Automation";
		String upperCase = "";

		for (int i = 0; i < s.length(); i++) {
			char ch = s.charAt(i);

			if (ch >= 65 && ch <= 90) {
				upperCase = upperCase + ch;
			}
		}

		System.out.println(upperCase);
	}
}
```

```
package JavaImportantPrograms;

public class FindUpperCaseLetter2 {

	public static void main(String[] args) {
		String s = "Welcome to Automation";
		String upperCase = "";

		for (int i = 0; i < s.length(); i++) {
			char ch = s.charAt(i);

			if (Character.isUpperCase(ch)) {
				upperCase = upperCase + ch;
			}
		}

		System.out.println(upperCase);
	}
}
```

```
package JavaImportantPrograms;

public class FindUpperCaseLetter3 {

	public static void main(String[] args) {
		String s = "Welcome to Automation";

		String upperCase = s.replaceAll("[^A-Z]", "");

		System.out.println(upperCase);
	}
}
```

Find Lower Case Letter from String

```
package JavaImportantPrograms;

public class FindLowerCaseLetter1 {

	public static void main(String[] args) {
		String s = "Welcome to Automation";
		String lowerCase = "";

		for (int i = 0; i < s.length(); i++) {
			char ch = s.charAt(i);

			if (ch >= 98 && ch <= 122) {
				lowerCase = lowerCase + ch;
			}
		}

		System.out.println(lowerCase);
	}
}
```

```
package JavaImportantPrograms;

public class FindLowerCaseLetter2 {

	public static void main(String[] args) {
		String s = "Welcome to Automation";
		String lowerCase = "";

		for (int i = 0; i < s.length(); i++) {
			char ch = s.charAt(i);

			if (Character.isLowerCase(ch)) {
				lowerCase = lowerCase + ch;
			}
		}

		System.out.println(lowerCase);
	}
}
```

```
package JavaImportantPrograms;

public class FindLowerCaseLetter3 {

	public static void main(String[] args) {
		String s = "Welcome to Automation";
		String lowerCase = s.replaceAll("[^a-z]", "");
		System.out.println(lowerCase);

	}
}
```

Find upper case and lower case letter

```
package JavaImportantPrograms;

public class FindUpperCaseAndLowerCaseLetter1 {

	public static void main(String[] args) {
		String s = "Sele11344$!#$$Nium123";
		String UpperCase = "";
		String lowerCase = "";

		for (int i = 0; i < s.length(); i++) {
			char ch = s.charAt(i);

			if (ch >= 98 && ch <= 122) {
				lowerCase = lowerCase + ch;
			}
			else if (ch >= 65 && ch <= 90) {
				UpperCase = UpperCase + ch;
			}
		}

		System.out.println(lowerCase);
		System.out.println(UpperCase);
	}
}
```

```
package JavaImportantPrograms;

public class FindUpperCaseAndLowerCaseLetter2 {

	public static void main(String[] args) {
		String s = "Sele11344$!#$$Nium123";
		String UpperCase = "";
		String lowerCase = "";

		for (int i = 0; i < s.length(); i++) {
			char ch = s.charAt(i);

			if (Character.isLowerCase(ch)) {
				lowerCase = lowerCase + ch;
			} else if (Character.isUpperCase(ch)) {
				UpperCase = UpperCase + ch;
			}
		}

		System.out.println(lowerCase);
		System.out.println(UpperCase);
	}
}
```

```
package JavaImportantPrograms;
```

```
public class FindUpperCaseAndLowerCaseLetter3 {

	public static void main(String[] args) {
		String s = "Sele11344$!#$$Nium123";

		String lowerCase = s.replaceAll("[^a-z]", "");
		System.out.println(lowerCase);

		String uppercase = s.replaceAll("[^A-Z]", "");
		System.out.println(uppercase);



	}
}
```

Separate upper case, lower case, special character and numbers

```
package JavaImportantPrograms;

public class SeperateUpperCaseAndLowerCaseAndNumbersAndSpecialCharacter {

	public static void main(String[] args) {
		String s = "Sele11344$!#$$Nium123";

		String lowerCase = s.replaceAll("[^a-z]", "");
		System.out.println(lowerCase);

		String uppercase = s.replaceAll("[^A-Z]", "");
		System.out.println(uppercase);

		String numbers = s.replaceAll("[^0-9]", "");
		System.out.println(numbers);

		String SpecialCharacter = s.replaceAll("[A-Za-z0-9]", "");
		System.out.println(SpecialCharacter);

	}
}
```

Find duplicate character from String

```
package JavaImportantPrograms;

public class findDuplicateCharacter1{

	public static void main(String[] args) {
		String a="jaavvva";
		char abc[]=a.toCharArray();
		for(int i=0;i<a.length();i++)
		{
			for(int j=i+1;j<a.length();j++)
			{
				if(abc[i]==abc[j])
				{
					System.out.print(abc[j]);
				}
			}


		}
	}
}
```

```
package JavaImportantPrograms;

import java.util.LinkedHashSet;

public class findDuplicateCharacter2 {

	public static void main(String[] args) {
		String a = "jaavvva";
		char abc[] = a.toCharArray();
		LinkedHashSet<Character> h1 = new LinkedHashSet<Character>();

		for (int i = 0; i < a.length(); i++)
		{
			if(!h1.add(abc[i]))
			{
				System.out.print(abc[i]);
			}
			else
			{
				h1.add(abc[i]);
			}

		}
	}
}
```

Occurrence of Character from String

```
package JavaImportantPrograms;

import java.util.LinkedHashMap;
import java.util.Map.Entry;
import java.util.Set;

public class OccurrenceCharacter1 {

	public static void main(String[] args) {
		String a = "cucumber";

		char[] abc = a.toCharArray();

		LinkedHashMap<Character, Integer> h1 = new LinkedHashMap<Character,
Integer>();

		for (int i = 0; i < abc.length; i++) {

			if (h1.containsKey(abc[i]))
			{
				h1.put(abc[i], h1.get(abc[i]) + 1);
			}
			else {
				h1.put(abc[i], 1);
			}
		}

		Set<Entry<Character, Integer>> it = h1.entrySet();

		for(Entry<Character, Integer> xyz: it)
		{
			System.out.println(xyz.getKey() + "  ::  "+xyz.getValue());
		}

	}
}
```

Swapping String

```
package JavaImportantPrograms;

public class SwappingString1 {

	public static void main(String[] args) {

		String a="java";
		String b="selenium";
		String c;

		c=a;
		a=b;
		b=c;

		System.out.println("after swapping "+a+" :: "+b);

	}
}
```

```
package JavaImportantPrograms;

public class SwappingString2 {

	public static void main(String[] args) {
		//Swapping a String without third variable
		String a = "java";
		String b = "selenium";

		a = a + b;
		b = a.substring(0, a.length() - b.length());
		a = a.substring(b.length());

		System.out.println(a);
		System.out.println(b);

	}
}
```

Count vowels only

```
package JavaImportantPrograms;

public class CountVowels {

	public static void main(String[] args) {

		String a = "selenium testing";
		char[] b = a.toCharArray();
		int counter = 0;
		for (int i = 0; i < b.length; i++) {
			if (b[i] == 'a' || b[i] == 'e' || b[i] == 'i' || b[i] == 'o' || b[i] == 'u') {
				counter++;
			}
		}
		System.out.println(counter);
	}
}
```

Find Vowels

```
package JavaImportantPrograms;

public class FindVowels {

	public static void main(String[] args) {

		String a = "selenium testing";
		char[] b = a.toCharArray();
		String c = "";
		for (int i = 0; i < b.length; i++) {
			if (b[i] == 'a' || b[i] == 'e' || b[i] == 'i' || b[i] == 'o' || b[i] == 'u') {
				c = c + b[i];
			}
		}
		System.out.println(c);
	}
}
```