// Bubble sorting

```
public class BubbleSortingEx1HomeWork1 {
	public static void main(String[] args) {
		int ar[] = {50, -40, 60, 00, -10};
		int size= ar.length;

		for( int i=0; i<size-1; i++) {
			for(int j=0; j<size-i-1; j++) {
				if (ar[j]<ar[j+1]) {
					int temp=ar[j];
					ar[j]=ar[j+1];
					ar[j+1]=temp;

				}
			}
		}
		for(int i=0; i<size; i++) {
			System.out.println(ar[i]);
		}

	}
}
```

// Selection Sorting

```
public class Selection_sorting {
	public static void main(String args[]) {
		int arr[] = { -40, 50, 10, 00, 30 };

		for (int i = 0; i < arr.length ; i++) {
			for (int j = i + 1; j < arr.length; j++) {
				if (arr[i] > arr[j]) {
					int temp = arr[i];
					arr[i] = arr[j];
					arr[j] = temp;
				}

			}
			System.out.println(arr[i]);
		}
	}

}
```

```
// Occurance of alphabates
public class OccuranceofString {
	public static void main(String args[]) {
		String str = "Hellow world";
		int count = 0;
	char arr[] = str.toCharArray();
		for(int i=0; i<=str.length(); i++) {
			count = 1;
			for(int j=i+1; j<str.length(); j++) {
				if(arr[i]==arr[j] && arr[i]!=' ' && arr[i]!=0)
{
					count++;
					arr[j]=0;
				}
			}
			if(count>1 && arr[i]!='0') {
			System.out.println(arr[i]+"="+count);
		}
			}
}}
```

```
//Palindrome
public class PalindromeNoEx1 {
	public void test() {

		int num = 45654;
		int t = num;
		int r = 0;
		int p = 0;

		while(num > 0) {

			r = num%10;
			p = p*10+r;
			num = num/10;
		}
		if (t == p) {
			System.out.println("No is palindrome = "+p);
		}
		else {
			System.out.println("No is not palindrome = "+p);
		}
	}
public static void main(String[] args) {
	PalindromeNoEx1 obj =new PalindromeNoEx1();
	obj.test();
}
}
```

//Aramstrong no

```
public class ArmstrongNoEx1 {
	public static void main(String[] args) {
		int i=153, arm=0, r=0;
		int a=i;
		while(i>0) {
			r=i%10;
			arm=r*r*r+arm;
			i=i/10;
		}
		if(a==arm) {
			System.out.println("No is armstrong = "+a);
		}else {
			System.out.println("No is non aramstrong = "+a);
		}}}
```

//Factorial No

```
public class FactorialNo {
	public static void main(String[] args) {
		int i=1;
		int fact=1;
		int no=5;
		for(i=1; i<=no; i++) {
			fact= fact*i;
		}
		System.out.println("Factorial  of 5 is = "+fact);
		}
}
```

//Reverse No

```
public class ReverseNo1 {

public void reverse() {

		int i = 123456;

		int rem = 0;
		System.out.println("No is reverse");
		while(i > 0) {
rem=i %10;
//to separate any single digit from any whole no use mod "%"
// that means u get reminder of that no
			System.out.print(rem+ " ");
			i = i/10;
		}		}
public static void main(String[] args) {
	ReverseNo1 obj = new ReverseNo1();
	obj.reverse();
}}
```

// Reverse String Without Changing Position

```
public class ReverseStringWithoutChangingPosition {
	public static void main(String args[]) {
		String str = "there is garden and it is beautiful";
		String arr[] = str.split(" ");
		for(int i=0; i<=arr.length-1; i++) {
			for(int j=arr[i].length()-1; j>=0; j--) {
				System.out.print(arr[i].charAt(j));
			}
		System.out.println();
		}
	}
}
```

// Addition In String With Considering Single Digit

```
public class AdditionInStringWithConsideringSingleDigit {
	public static void main(String[] args) {
	   String str1 = "dhj34d fhf9fs";

	   char arr[] = str1.toCharArray();
	   int sum= 0;

	   for (int i = 0; i < arr.length; i++) {
	       if (Character.isDigit(arr[i])) {
	         System.out.println("Digits in the String : " +
arr[i]);

	         int   a = Integer.parseInt(String.valueOf(arr[i]));
	          sum = sum + a;
	       }
	   }
	   System.out.println("Sum of Digits is : " +sum);
    }

}
```

```
//Star Pattern
public class PatternPogrameStar1 {
	public void test1() {
		System.out.println("Star Pattern 1 ");
		int n = 4;
		for (int i = 1; i <= n; i++) {
// for loop for number of lines

			for (int k = n; k >= i; k--) {
// for loop for print space

				System.out.print(" ");
			}

			for (int j = 1; j <= i; j++) { *
				System.out.print(" *");
			}

			System.out.println();
		}
	}
	public void test2() {
		System.out.println("Pattern 2");
		int n = 4;
		for (int i = 1; i <= n; i++) {
// for loop for number of lines

			for (int k = 1; k <= i; k++) {
// for loop for print space

				System.out.print(" ");
			}

			for (int j = n; j >= i; j--) { // for loop for print
*
				System.out.print(" *");
			}
			System.out.println();
		}

	}

	public void test3() {
		System.out.println("Pattern 3");
		int n = 4;

		// loop for upper part of pattern
```

```
            for (int i = 1; i <= n; i++) { // for loop for number of
lines
                  for (int k = n; k >= i; k--) { // for loop for print
space
                        System.out.print(" ");
                  }

                  for (int j = 1; j <= i; j++) { // for loop for print
*
                        System.out.print(" *");
                  }
                  System.out.println();
            }

            // loop for lower part of pattern

            for (int i = 1; i <= n; i++) { // for loop for number of
lines

                  for (int k = 0; k <= i; k++) { // for loop for print
space
                        System.out.print(" ");
                  }

                  for (int j = 3; j >= i; j--) { // for loop for print
*
                        System.out.print(" *");
                  }
                  System.out.println();
            }
      }

      public static void main(String[] args) {
            PatternPogrameStar1 obj = new PatternPogrameStar1();
            obj.test1();
            obj.test2();
            obj.test3();
      }
}
```