Java Code

Examples

```
package classwork;

import java.time.LocalDate;
import java.time.Period;
import java.util.Scanner;
public class DOBVote {
	public static void main(String[] args) {
		//Declare Variables
		String userDOB = "";
		int age = 0;
		//Collect date of birth
		System.out.print("Please enter date of birth in YYYY-MM-DD: ");
	Scanner scanner = new Scanner(System.in);
	userDOB = scanner.nextLine();
	scanner.close();

	//Calculates the year difference between current and date of birth.
	LocalDate dob = LocalDate.parse(userDOB);
		LocalDate curDate = LocalDate.now();
		age = Period.between(dob, curDate).getYears();

	//Checks if the person can vote
	if (age <= 18) System.out.println("You can't vote.");
	else System.out.println("You can vote!");
	}
```

```
public class calculator {

   public static void main(String[] args) {
            double num1 =0, num2=0, sum=-1, minus=1, divide=1, multiply=1;
            String ErrorNegative="Negative Number",
                  ErrorZero="Zero",
                  ErrorNotDoable="Not Doable";
            Scanner scan = new Scanner(System.in);
            while(true)
            {
            System.out.println("Enter first number: ");
            num1=scan.nextDouble();
            System.out.println("Enter the second number: ");
            num2=scan.nextDouble();
            sum=num1+num2;
            System.out.println("The addition of " +num1 +" "+num2 +" is "+sum);
            minus=num1  -num2;
            if(minus<0)
            System.out.println(ErrorNegative);
            else
            System.out.println("The subtraction of " +num1+" " +num2 + " is " +minus);
            multiply = num1*num2;
            if(multiply == 0)
            System.out.println (ErrorZero);
            else
            System.out.println("The multiplication of "+num1 +" "+ num2 + " is " +multiply);
            if(num2==0)
               System.out.println(ErrorNotDoable);
            else
            {
               divide= num1/num2;
               System.out.println("The division of" +num1 +" "+ num2 +" is" + divide);
            }
```

Even/Odd

```
package platform.evenorodd;
public class square
public static void main(String[] args) {
      int i=0, j=0, n=4;
      for(i=1; i<=n; i++) {
         for(j=1; j<=n; j++) {
            if(i==1     ||     i==n     ||        j==1     ||        j==n)
               System.out.print("*");
            else
               System.out.print(" ")
 }
         System.out.println();
{
```

Pin

```
public static void main(String[] args) {
        int pin = 1234;
        int input = 0;

        Scanner scan = new Scanner(System.in);
         for(int i=0; i != 3 ; i++)
        {
            System.out.println("Enter your Pin: ");
            input = scan.nextInt();

            if(input == pin)
            {
                System.out.println("Welcome!");
                break;
            }
             if(input != pin)
            System.out.println("Your account is locked!");

//        if(input == pin)
//            System.out.println("Welcome!");
//
//        else {
//            System.out.println("Enter your Pin: ");
//            input = scan.nextInt();
//            }
//
//        if(input == pin)
//            System.out.println("Welcome!");
//        else {
//            System.out.println("Enter your Pin: ");
//            input = scan.nextInt();
//        }
//
//        if(input == pin)
//            System.out.println("Welcome!");
//        else
//            System.out.println("Your account is locked!");
    }
```

String

```
package VotingAge;
```

```
public class square {
public static void main(String[] args) {
int i=0, j=0, n=4;
        for(i=1; i<=n; i++) {
        for(j=1; j<=n; j++) {
              System.out.print(i + "," + j + " ");
          }
      System.out.println();
                    }
```

String

```
package com.firstjavacode;
public class MakeSquare2 {
public static void main(String[] args) {
   int i=0, j=0, n=8;
   // row increment
   for (i=1; i<=n; i++) {
   // column increment
   for (j=1; j<=n; j++) {
   if (i==1 || i==n || j==1 || j==n)
                System.out.print(i/ +j);
                else
                System.out.print(j +i);

                System.out.format("%d%d ",i,j);
                else
                System.out.format("%d%d ",j,i);
                 }
                System.out.println();
                 }
```

String MinTest

```
package com.evenodd;
import java.util.Scanner;
public class MinTest {
public static void main(String[] args) {
      double num1=0, num2 =0, num3 =0,max=0,min=0;
      double avg =0;

      Scanner scan = new Scanner(System.in);

      System.out.println("Enter 3 integers: ");
      num1 = scan.nextInt();
      num2 = scan.nextInt();
      num3 = scan.nextInt();

      avg = (num1 + num2 + num3)/3;
      System.out.println("the avg is: " + avg);
```

```
        //way1 for max
        max = num1;
        if(num2>max)
           max = num2;
        if(num3>max)
           max = num3;

        //way2 for max
//        if(num1>num2 && num1>num3)
//           max = num1;
//        if(num2>num1 && num2>num3)
//           max = num2;
//        if(num3>num1 && num3>num2)
//           max = num3;
        System.out.println("the max is: " + max);

        min = num1;
        if(num2<min)
           min=num2;
        if(num3<min)
           min=num3;
        System.out.println("the min is: " + min);

    }

}


package com.evenodd;
import java.util.Scanner;
public class MinTest {
  public static void main(String[] args) {
    double num1=0, num2 =0, num3 =0,max=0,min=0;
    double avg =0;

    Scanner scan = new Scanner(System.in);

    System.out.println("Enter 3 integers: ");
    num1 = scan.nextInt();
    num2 = scan.nextInt();
    num3 = scan.nextInt();

    avg = (num1 + num2 + num3)/3;
    System.out.println("the avg is: " + avg);

    //way1 for max
    max = num1;
```

```
    if(num2>max)
      max = num2;
    if(num3>max)
      max = num3;

    //way2 for max
//   if(num1>num2 && num1>num3)
//     max = num1;
//   if(num2>num1 && num2>num3)
//     max = num2;
//   if(num3>num1 && num3>num2)
//     max = num3;
    System.out.println("the max is: " + max);

    min = num1;
    if(num2<min)
      min=num2;
    if(num3<min)
      min=num3;
    System.out.println("the min is: " + min);
  }
```

String AvgMinMax

```
public class AvgMinMax {
    public static void main(String[] args) {
        double num1=0, num2 =0, num3 =0;
          Scanner scan = new Scanner(System.in);

          System.out.println("Enter 3 integers: ");
          num1 = scan.nextInt();
          num2 = scan.nextInt();
          num3 = scan.nextInt();

          //avg
          System.out.println("the avg is: " + avg(num1,num2,num3));
          System.out.println("the avg of 2 ints is: " + avg(num1, num2));

          //max
          System.out.println("the max is: " + max(num1,num2,num3));

          //min
          System.out.println("the min is: " + min(num1,num2,num3));
    }
```

Class

```
public static double avg(double n1, double n2, double n3)
```

```
    {
        double avg = (n1+n2+n3)/3;
        return avg;
    }

    public static double avg(double n1, double n2)
    {
        double avg = (n1+n2)/2;
        return avg;
    }

    public static double max(double num1, double num2, double num3)
    {
        double max = num1;
        if(num2>max)
            max = num2;
        if(num3>max)
            max = num3;
        return max;
    }

    public static double min(double n1, double n2, double n3)
    {
        double min = n1;
        if(n2<min)
            min=n2;
        if(n3<min)
            min=n3;
        return min;
    }
}

int[] arr = {1,2,3,4,5,6};
        System.out.println(arr[0]);
        System.out.println(arr[1]);
        System.out.println(arr[2]);
        System.out.println(arr[3]);
        System.out.println(arr[4]);
        System.out.println(arr[5]);

        for(int i=0; i<6; i++)
        {
            System.out.println(arr[i]);
        }
```

Arrays

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

```
        int leng=0;
        int[] arr;
         Scanner input =new Scanner(System.in);

        System.out.println("Enter the number of elements: ");
        leng = input.nextInt();
        arr= new int[leng];

        for(int i =0; i<arr.length; i++) {
            System.out.print("Please input your" + (i+1) + " value:");
              arr[i]=input.nextInt();

        }

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

    }
```

Arrays

```
package HelloWorld;
import java.util.Scanner;
public class gradearray {
    public static void main(String[] args) {
        int leng=0;
        int[] arr;
         Scanner input =new Scanner(System.in);

        System.out.println("Enter the number of elements: ");
        leng = input.nextInt();
        arr= new int[leng];

        for(int e : arr) {
            System.out.print("Please input your value:");
              e =input.nextInt();

        }

        for (int e : arr){
            System.out.println(e);
        }

    }
}
```

Arrays

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

```
  {
     int leng=0;
     int[] arr;
     Scanner input =new Scanner(System.in);

      //to get the length from the the user
     System.out.println("Enter the number of elements: ");
     leng = input.nextInt();
     arr= new int[leng];

     //to fill the array
     for(int i=0; i<arr.length; i++) {
        System.out.print("Please input your value:");
          arr[i] =input.nextInt();
     }
     //to print the array
     for (int e : arr){
        System.out.println(e);
     }

  }
```

Array

```
public static void main(String[] args)
  {
      int leng=0;
     int[] arr;
      Scanner input =new Scanner(System.in);

      //to get the length from the the user
     System.out.println("Enter the number of elements: ");
     leng = input.nextInt();
     arr= new int[leng];

     //to fill the array
     for(int i=0; i<arr.length; i++) {
        System.out.print("Please input your value:");
          arr[i] =input.nextInt();

     }

     //Sum
     System.out.println("sum= "+add(arr));

     //mult
     System.out.println("prod= "+mult(arr));

     //avg
```

```
    System.out.println("avg= "+avg(arr));

    //max
    System.out.println("max= "+max(arr));

    //min
    System.out.println("min= "+min(arr));

}

public static int add(int[] array)
{
    int sum = 0;
    for (int element : array){
        sum += element;
    }
    return sum;
}

public static int mult(int[] array)
{
    int prod = 1;
    for (int element : array){
        prod *= element;
    }
    return prod;
}

public static double avg(int[] array)
{
    double avg = add(array)/array.length;
    return avg;
}

public static int max(int[] array)
{
    int max = 0;
    for(int element : array) {
        if(element>max)
            max = element;
    }
    return max;
}

public static int min(int[] array)
{
    int min = 99999999;
    for(int element : array) {
```

```
            if(element<min)
                min = element;
        }
        return min;
    }
```

2D Array

```
public static void main(String[] args) {
        int[] a = {1,2,3,4,5,6};
        int i=0;
        Scanner in = new Scanner(System.in);
        //while loop
        while(i<a.length) {
            System.out.println(a[i]);
            i++;
        }

        //reset the index
        i=0;

        //do..while loop
        do {
            System.out.println(a[i]);
            i++;
        }while(i<a.length);

        //reset the index
        i=0;

        //foreach loop
        for(int e : a)
            System.out.println(e);

        //for loop
        for(i=0;i<a.length;i++) {
            System.out.println(a[i]);
        }
        System.out.println("Thank you!");
    }

public static void main(String[] args) {
                        int r=2, c=2;
                        int[][] array = new int[r][c];
```

```
		for(int i=0; i<r; i++) {
			for(int j=0; j<c; j++) {
				System.out.print(array[i][j] + " - ");
			}
			System.out.println("\n");
		}
	}
```

2D Array

```
public static void main(String[] args) {
		int r=2, c=2;
		int[][] array = new int[r][c];
		Scanner read= new Scanner(System.in);

		//fill the array
		for(int i=0; i<r; i++) {
			for(int j=0; j<c; j++) {
				System.out.print("Enter a value ");
				array[i][j]=read.nextInt();
				System.out.println(array[i][j] + " - ");

			}
			System.out.println("\n");

		}


		//print the array
		for(int i=0; i<r; i++) {
			for(int j=0; j<c; j++) {
				System.out.print(array[i][j] + " - ");
			}
			System.out.println("\n");
		}
	}
```

Using for reach for 2D Array

```
//print the array
		for(int[] row : array) {
			for(int element : row) {
				System.out.print(element + " - ");
			}
			System.out.println("\n");
		}
```

Prime Numbers

```
package com.platform.primenumbers;
import java.util.Scanner;
public class Prime {

	public static void main(String[] args) {
		/*
		 * Declaring the variables and initiate them with false values
		 */
		int counter=-1, UpToNumber=-1, number=-1, divisor=-1;

		/*
		 * Creating a Scanner Class object with name "read"
		 */
		Scanner read = new Scanner(System.in);

		/*
		 * Using the Scanner object (read) to capture the
		 * user input and assign it to the UpToNumber variable.
		 * Q- Why we are using do..while here?
		 */
		do {
			System.out.println("Up to what number you want to print the prime numbers: ");
			UpToNumber = read.nextInt();
		}while(UpToNumber<=1);

		/*Initiating number with 1, and counter with 0;
		 * As long as number <= UpToNumber the loop will keep running;
		 * At the end of each iteration number will be increased by one,
		 * and the counter will be reset to zero again
		 */
		for(number=1,counter=0; number <= UpToNumber; number++,counter=0)
		{
			/*
			 * Initiating divisor with 1;
			 * As long as number >= divisor the loop will keep running;
			 * At the end of each iteration divisor will be increased by one
			 */
			for(divisor=1;number>=divisor;divisor++)
			{
				/*
				 * Checking if number is divisible by the divisor
				 */
				if(number%divisor==0)
```

```
                                        {
                                                /*
                                                 * Increasing counter by one
                                                 */
                                                counter++;
                                                /*
                                                 * Checking if divisor reached the value of the number
                                                 */
                                                if(divisor == number)
                                                {
                                                        /*
                                                         * Checking if counter is equal to two
                                                         */
                                                        if(counter ==2)
                                                        {
                                                                /*
                                                                 * Printing the number as a "Prime Number"
                                                                 */
                                                                System.out.println(number);

                                                        }//End of the if(counter ==2) scope
                                                }//End of the if(divisor == number) scope
                                        }//End of the if(number%divisor==0) scope
                                }//End of the for(divisor=1;number>=divisor;divisor++) scope
                        }//End of the for(number=1,counter=0; number <= UpToNumber; number++,counter=0)
scope
                }//End of main(String[] args) scope
}//End of class Prime scope
```

Split a string

```
String s = "Welcome to ASM04!";
                        String[] str = s.split(" ");
                        for(String x : str)
                        System.out.println(x);
```

String find the shortest name

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

```
		String[] str;
		Scanner read = new Scanner(System.in);

		System.out.println("Enter the number of students: ");
		int no = read.nextInt();
		str = new String[no];

		for(int i=0; i<no; i++) {
			System.out.println("Enter student name: ");
			str[i] = read.next();
		}
		int max=0;
		String foundIt = "";
		for(String s : str)
			if(s.length()>max) {
				max = s.length();
				foundIt = s;
			}

		System.out.println("Longest name is: "+foundIt);

	}
```

Longest Name

```
public static void main(String[] args) {
Scanner read = new Scanner(System.in);
System.out.println("How many students do your have?");
 int nums = read.nextInt();
 String arr[];
 arr= new String[nums];
      for(int i =0; i<nums; i++)
     {
     System.out.println("Enter the student name ");
     arr[i]=read.next();
     }
 String longest = arr[0];
 for(int i = 1; i < arr.length; i++)
 {
    String name = arr[i];
    if(name.length() > longest.length())
       longest = name;
  }
  System.out.println("The longest name is " + longest);
  System.out.println("The length of the longest name is: " + longest.length());

}
```

Loops

```
public static void main(String[] args) {
		//Declare the Variables
		int numOfStudents = 0;
		String longestName = "";
		String[] stud = { };

		//Gets user input
		Scanner reader = new Scanner(System.in);

		//Starts to collect the number of students for class
		System.out.print("How many students are in your class? ");
		numOfStudents = reader.nextInt();
		stud = new String[numOfStudents];

		//This collects the student's name
		for (int i = 0; i < stud.length; i++) {
			System.out.print("What is your student's name? " );
			stud[i] = reader.next();
		}

		//Close Scanner
		reader.close();

		//Comparing the student name length
		longestName = stud[0];
		for (int i = 1; i < stud.length; i++) {
			//This finds the length of each string
			if (longestName.length() < stud[i].length()) {
				//Overwrites current biggest
				longestName = stud[i];
			}
		}

		//This prints the longest name
		//System.out.println("The longest name is " + longestName + ", the length is " +
longestName.length());
		System.out.println("The longest name is " + longestName);
		//System.out.println("The length is " + longestName.length());

//		//This prints out student names of the whole array
//		for (String x : stud)
//			System.out.println(x);
	}
```

Class Object

```
public class Bird {
String birdName;
double wingspan;
String typecolor;
String typeBeak;
String typeEgg;
String typeNest;
Bird(String name, double wing, String color, String beak, String egg, String nest){
   birdName = name;
   wingspan=wing;
   typecolor = color;
   typeBeak = beak;
   typeEgg =egg;
   typeNest =nest;
}
String Talk(){
   return ("I can talk to you.");
   }
String Fly() {
   return ("I can fly far with my wings that are " + wingspan + " inches long!");
}
String Describewing() {
   return ("I'm a(n) " + birdName + ". " + "My wings are "+ wingspan+ " inches long!");
}
String Describebreak() {
   return ("I'm a(n) " + birdName + ". " + "My beak  is "+ typeBeak+ "!");
}
String Describecolor() {
   return ("I'm a(n) " + birdName + ". " + "My color is "+ typecolor+ "!");
}
String Describenest() {
   return ("I'm a(n) " + birdName + ". " + "My nest is a(n) "+ typeNest+ "!");
}
String DescribeEgg() {
   return ("I'm a(n) " + birdName + ". " + "My eggs are "+ typeEgg+ "!");
}
}
```

Objects

```
import java.util.Scanner;
public class parrot{
public static void main(String[] args) {
      Scanner read = new Scanner(System.in);
      System.out.println("Enter your name:");
      String user = read.next();
      System.out.println("Enter your bird's name:");
      String name = read.next();
```

```
        System.out.println("Enter your bird's wingspan:");
        int wing = read.nextInt();
        System.out.println("Enter your bird's color:");
        String color= read.next();
        System.out.println("Enter your bird's type of beak:");
        String beak = read.next();
        System.out.println("Enter your bird's egg type:");
        String egg =read.next();
        System.out.println("Enter your bird's nest type:");
        String nest = read.next();
        Bird Parrot = new Bird(name, wing, color, beak, egg, nest);
        read.close();

      String talking = Parrot.Talk();
      System.out.println(talking);
      String fly = Parrot.Fly();
      System.out.println(fly);
      String describe = Parrot.Describebreak();
      System.out.println(describe);
      String descolor = Parrot.Describecolor();
      System.out.println(descolor);
      String desnest = Parrot.Describenest();
      System.out.println(desnest);
      String desegg =Parrot.DescribeEgg();
      System.out.println(desegg);
      String deswing = Parrot.Describewing();
      System.out.println(deswing);
    }
}
```

Math Class

```
            //Variable
            double[] arr;
            //Array Constructor
            Math(int length){
                        arr = new double[length];
            }
            //Add Method
            double add()
    {
            double sum = 0;
             for (double element : arr){
            sum += element;
        }
            return sum;
    }
```

```
        //Multiply Method
        double mult()
    {
       double prod = 1;
       for (double element : arr){
          prod *= element;
       }
           return prod;
    }

    //Average Method
    double avg()
    {
           double avg = add()/arr.length;
           return avg;
       }

    //Maximum Method
    double max()
    {
           double max = 0;
       for(double element : arr) {
           if(element>max)
                    max = element;
          }
          return max;
       }

    //Minimum Method
    double min()
    {
       double min = 99999999;
       for(double element : arr) {
          if(element<min)
             min = element;
       }
           return min;
```

MathMain Class

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

           //Input array length
           System.out.println("Enter number of elements: ");
           int length = mathScan.nextInt();
           Math mathArray = new Math(length);

                    //Input values
       System.out.println("Enter array values: ");
```

```
                for(int i = 0; i < length; i++) {
        mathArray.arr[i] = mathScan.nextDouble();
                }
                //Output array
                for(double element : mathArray.arr)
                        System.out.println("\n" + element + "\n");

                //Add
        System.out.println("Add = "+ mathArray.add());

        //Multiply
        System.out.println("Mult = "+ mathArray.mult());

        //Average
        System.out.println("Avg = "+ mathArray.avg());

        //Maximum
        System.out.println("Max = "+ mathArray.max());

        //Minimum
        System.out.println("Min = "+ mathArray.min());
```

Object SQL

```
import java.sql.*;
class OracleCon{
public static void main(String args[]){
try{
//step1 load the driver class
Class.forName("oracle.jdbc.driver.OracleDriver");
//step2 create  the connection object
Connection con=DriverManager.getConnection(
"jdbc:oracle:thin:@localhost:1521:xe","system","oracle");
//step3 create the statement object
Statement stmt=con.createStatement();
//step4 execute query
ResultSet rs=stmt.executeQuery("select * from emp");
while(rs.next())
System.out.println(rs.getInt(1)+"  "+rs.getString(2)+"  "+rs.getString(3));
//step5 close the connection object
con.close();
  }
catch(Exception e){ System.out.println(e);}
  }
```

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

```
    try{
    //step1 load the driver class
    Class.forName("oracle.jdbc.driver.OracleDriver");

    //step2 create  the connection object
    Connection con=DriverManager.getConnection(
    "jdbc:oracle:thin:@localhost:1521:orcl","student","123");

    //step3 create the statement object
    Statement stmt=con.createStatement();

    //step4 execute query
    ResultSet rs=stmt.executeQuery("select * from javanumbers");
    //step4a STORE VALUES INTO ARRAY
    int[] arr = new int[10];
    for (int i = 0; rs.next(); i++)
    {
       arr[i]=rs.getInt(1);
    }
    //step5 close the connection object
    con.close();

        for(int i : arr)
        System.out.println(i);

    }
catch(Exception e){ System.out.println(e);}
    }
```

```
package com.perscholas.java_basics;
public class Basic_Practice {
```

```
public static void main(String[] args) {
        double a=0;
        int b=0;

        a=5.4;
        b=5;

        final double PI =3.14;
         int x = (int)a;
         int add = (int)a+b;
        double dv = a/b;
        double mul = (int)a*b;

        System.out.println(add);
        System.out.println(div);
       System.out.println(mul);

    }
```