File - D:\Desktop\Coding workspace\classworks\src\practice.java

```java
import java.util.Scanner;
public class practice {
    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);

        int i = 1;
        for (i = 1;i < 11; i++)
        {
            //int r = (int) (1 + (10 - 1) * Math.random());
            int dice = (int) (1 + 6 * Math.random());

          //  System.out.println(r);
            System.out.println(dice);
        }


    }
}
```

File - D:\Desktop\Coding workspace\classworks\src\buzz_number.java

```java
import java.util.Scanner;

public class buzz_number {
    public static void main(String[] args) {
            Scanner sc = new Scanner(System.in);
            System.out.print("Enter a number: ");
            int num = sc.nextInt();
            String result = (num % 7 == 0 && num % 10 == 7) ? "Buzz Number" : "Not a Buzz Number";
            System.out.println(result);
    }
}

```

File - D:\Desktop\Coding workspace\classworks\src\eighth_digit.java

```java
import java.util.Scanner;
public class eighth_digit {
    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);

        System.out.println("Enter a eight digit number");
        int num = sc.nextInt();

        System.out.println("The number is " + num);

        int first = num / 1000000;
        System.out.println("The first two digits are " + first);

        int second = (num / 10000) % 100;
        System.out.println("The second two digits are " + second);

        int third = (num / 100) % 100;
        System.out.println("The third two digits are " + third);

        int last = num % 100;
        System.out.println("The last two digits are " + last);

        int f_s = first + second;
        int t_l = third + last;

        double sq = Math.pow((int)f_s, 2);
        double cb = Math.pow((int)t_l, 3);

        System.out.println("The square of the sum first two and second two is " + sq);
        System.out.println("The cube of the sum third two and last two is " + cb);
    }
}

```

File - D:\Desktop\Coding workspace\classworks\src\magic_number.java

```java
import java.util.Scanner;

public class magic_number {
    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);
        System.out.println("Enter the number");
        int num = sc.nextInt();
        String ans = (num % 9 == 1) ? "Magic" : "not a Magic";
        System.out.println("The entered number is " + ans + " number");
    }
}

```

File - D:\Desktop\Coding workspace\classworks\src\extract_sixDigit.java

```java
//input a six-digit number and find the sum of first two and last two digits

import  java.util.Scanner;
public class extract_sixDigit {
    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);

        System.out.println("Enter a six digit number");
        int num = sc.nextInt();

//        123456 / 10000 = 12
        int first = num / 10000;
        System.out.println("The first two digits are - " + first);

//        123456 % 100 = 56
        int last = num % 100;
        System.out.println("The last two digits are - " + last);


        int sum = first + last;
        System.out.println("The sum of the first two digits and last two digits - " + sum);
    }
}

```

File - D:\Desktop\Coding workspace\classworks\src\compound_interest.java

```java
import  java.util.Scanner;
public class compound_interest {
    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);

        System.out.println("Enter the principal");
        double p = sc.nextDouble();

        System.out.println("Enter the rate of interest");
        double r = sc.nextDouble();

        System.out.println("Enter the number of years");
        double y = sc.nextDouble();

        double amt = p * Math.pow(1 + (r / 100), y);
        double ci = amt - p;

        System.out.println("The compound interest is - " + ci);
        System.out.println("The amount is - " + amt);

    }
}
```

File - D:\Desktop\Coding workspace\classworks\src\volume_surface_area.java

```java
import java.util.Scanner;
public class volume_surface_area {
    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);

        System.out.println("Enter length");
        double l = sc.nextDouble();

        System.out.println("Enter width");
        double b = sc.nextDouble();

        System.out.println("Enter height");
        double h = sc.nextDouble();

        double area = l * b;
        double peri = 2 * (l + b);
        double surface_area = 2 * ((l * b) + (b * h) + (h * l));
        double volume = l * b * h;

        System.out.println("The area is : " + area);
        System.out.println("The perimeter is : " + peri);
        System.out.println("The surface area is : " + surface_area);
        System.out.println("The volume is : " + volume);
    }
}

```

File - D:\Desktop\Coding workspace\classworks\src\slab_electricity_bill.java

```java
//first 100 units at 2 rupees per unit
//next 100 units at 3 rupees per unit
//next 200 units at 4 rupees per unit
//above 400 unit at 5 rupees per unit

import java.util.Scanner;
public class slab_electricity_bill {
    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);

        System.out.println("Enter your units consumed");
        double units = sc.nextDouble();

        if (units < 100){
            double value = units * 2;
            System.out.println("Your bill is - " + value);
        }
        else if (units > 100 && units <= 200){
            double value = (100 * 2) + (units - 100) * 3;
            System.out.println("Your bill is - " + value);
        }
        else if ((units > 200 && units <= 400)){
            double value = (100 * 2) + (100 * 3) + (units - 200) * 4;
            System.out.println("Your bill is - " + value);
        }
        else if (units > 400){
            double value = (100 * 2) + (100 * 3) + (200 * 4) + ((units - 400) * 5);
            System.out.println("Your bill is - " + value);
        }
    }
}

```

File - D:\Desktop\Coding workspace\classworks\src\electricity_bill_slab_2.java

```java
import  java.util.Scanner;
public class electricity_bill_slab_2 {
    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);

        System.out.println("Enter units consumed");
        double units = sc.nextDouble();

        double value = 0.0;

        if (units <= 100){
            value = units * 1.25;
        }
        else if (units > 100 && units <= 200){
            value = (100 * 1.25) + ((units - 100) * 1.50);
        }
        else if (units > 200){
            value = (100 * 1.25) + (100 * 1.50) + ((units - 200) * 1.80);
        }

        System.out.println("Units consumed : " + units);
        System.out.println("Total Bill : " + value);
    }
}

```

File - D:\Desktop\Coding workspace\classworks\src\leap_year_using_ternary_operator.java

```java
//LEAP YEAR , CENTURY LEAP YEAR OR NOT A LEAP YEAR USING NESTED TERNARY OPERATOR

import  java.util.Scanner;
public class leap_year_using_ternary_operator {
    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);

        System.out.println("Enter year");
        int y = sc.nextInt();

        String ans = (y % 4 == 0) ? (y % 400 == 0) ? "century Leap" : "Leap" : "Not Leap";
        System.out.println(y + " is " + ans + " year ");

    }
}

```

File - D:\Desktop\Coding workspace\classworks\src\second_largest_among_four_numbers.java

```java
import java.util.Scanner;
public class second_largest_among_four_numbers {
    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);

        System.out.println("Enter four numbers A, B, C, D");
        int a = sc.nextInt();
        int b = sc.nextInt();
        int c = sc.nextInt();
        int d = sc.nextInt();


        //when A is greatest
        if (a > b && a > c && a > d) {
            if (b > c && b > d) {
                System.out.println("B is second largest");
            } else if (c > b && c > d) {
                System.out.println("C is second largest");
            } else if (d > b && d > c) {
                System.out.println("D is second largest");
            }
        }
        //when B is greatest
         else if (b > a && b > c && b > d) {
            if (a > c && a > d) {
                System.out.println("A is second largest");
            } else if (c > a && c > d) {
                System.out.println("C is second largest");
            } else if (d > a && d > c) {
                System.out.println("D is second largest");
            }
        }

        //when C is the largest
```

```
35          else if (c > a && c > b && c > d) {
36              if (a > b && a > d){
37                  System.out.println("A is second largest");
38              }
39              else if (b > a && b > d) {
40                  System.out.println("B is second largest");
41              }
42              else if (d > a && d > b){
43                  System.out.println("D is second largest");
44              }
45          }
46
47          //when D is largest
48          else if (d > a && d > b && d > c){
49              if (a > b && a > c){
50                  System.out.println("A is second largest");
51              }
52              else if(b > a && b > c){
53                  System.out.println("B is second largest");
54              }
55              else if (c > a && c > b){
56                  System.out.println("C is second largest");
57              }
58          }
59      }
60 }
61
```

File - D:\Desktop\Coding workspace\classworks\src\triangle_three_sides_to_find_area.java

```java
import java.util.Scanner;
public class triangle_three_sides_to_find_area {
    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);

        System.out.println("Enter three sides of a triangle to find its area");
        double a = sc.nextDouble();
        double b = sc.nextDouble();
        double c = sc.nextDouble();

        double s = (a + b + c) / 2  ;
        double area = Math.sqrt((s * (s - a) * (s - b) * (s - c) ));

        System.out.println("The area of the triangle is : " + area + "cm^2");
    }
}

```

File - D:\Desktop\Coding workspace\classworks\src\even_or_odd_using_ternary_operator.java

```java
import java.util.Scanner;

public class even_or_odd_using_ternary_operator {

    public static void main(String[] args) {


        Scanner sc = new Scanner(System.in);
        System.out.print("Enter a number: ");
        int num = sc.nextInt();

        String evenOdd = (num % 2 == 0) ? "even" : "odd";
        System.out.println(num + " is " + evenOdd);

    }
}

```

File - D:\Desktop\Coding workspace\classworks\src\seconds_to_hour_minute_and_seconds.java

```java
import java.util.Scanner;

public class seconds_to_hour_minute_and_seconds {
    public static void main(String[] args) {
        Scanner input = new Scanner(System.in);
        System.out.print("Enter time in seconds: ");
        int seconds = input.nextInt();
        int hour = seconds / 3600;
        int minute = (seconds % 3600) / 60;
        int second = seconds % 60;
        System.out.println("Time in HH:MM:SS format is " + hour + " hour(s) " + minute + " minute(s) " + second + " second(s) ");
    }
}

```

File - D:\Desktop\Coding workspace\classworks\src\greatest_among_three_no_using_nested_if_else.java

```java
import java.util.Scanner;
public class greatest_among_three_no_using_nested_if_else {
    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);
        double a, b, c;
        a = sc.nextDouble();
        b = sc.nextDouble();
        c = sc.nextDouble();

        if(a >= b) {
            if(a >= c) {
                System.out.println(a + " is the largest number.");
            }
            else {
                System.out.println(c + " is the largest number.");
            }
        }
        else {
            if(b >= c) {
                System.out.println(b + " is the largest number.");
            }
            else {
                System.out.println(c + " is the largest number.");
            }
        }
    }
}

```

File - D:\Desktop\Coding workspace\classworks\src\three_digit_even_or_odd_using_ternary_operator.java

```java
import java.util.Scanner;
public class three_digit_even_or_odd_using_ternary_operator{
    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);

        System.out.println("Enter three digit number");

        int num = sc.nextInt();

        String ans = (num >=100 && num <= 999) ? ((num % 2 == 0) ? " even " : " odd ") : " not a three digit  "
  ;
        System.out.println(num + " is" + ans + "number ");
    }
}
```

File - D:\Desktop\Coding workspace\classworks\src\greatest_among_three_number_using_ternary_operator.java

```java
import java.util.Scanner;
public class greatest_among_three_number_using_ternary_operator {
    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);

        System.out.println("Enter three numbers");
        double num1, num2, num3;

        num1 = sc.nextDouble();
        num2 = sc.nextDouble();
        num3 = sc.nextDouble();

        double max = (num1 > num2) ? ((num1 > num3) ? num1 : num3) : ((num2 > num3) ? num2 : num3);

        System.out.println(max + " is the largest number");

    }
}

```

File - D:\Desktop\Coding workspace\classworks\src\relation_between_first_two_digits_and_last_two_digits_of_a_five_digit_number.java

```java
import java.util.Scanner;

public class relation_between_first_two_digits_and_last_two_digits_of_a_five_digit_number {
    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);
        System.out.println("Enter a 5 digit number:");
        int num = sc.nextInt();
        int firstTwoDigits = num / 1000;
        System.out.println("The first two digits are " + firstTwoDigits);
        int lastTwoDigits = num % 100;
        System.out.println("The last two digits are " + lastTwoDigits);
        if (firstTwoDigits > lastTwoDigits) {
            System.out.println("First two digits are greater than last two digits.");
        } else if (firstTwoDigits < lastTwoDigits) {
            System.out.println("Last two digits are greater than first two digits.");
        } else {
            System.out.println("First two digits are equal to last two digits.");
        }
    }
}

```