July 7 – Classwork

import java.util.Arrays;

// Base class for Student

public class Student {

    protected int roll\_no;

    protected String name;

    protected final int MAX\_SUBJECTS = 5;

    public Student() {

    }

    public Student(int roll\_no, String name) {

        this.roll\_no = roll\_no;

        this.name = name;

    }

    public int getRoll\_no() {

        return roll\_no;

    }

    public void setRoll\_no(int roll\_no) {

        this.roll\_no = roll\_no;

    }

    public String getName() {

        return name;

    }

    public void setName(String name) {

        this.name = name;

    }

    // public String toString() {

    // return "Student [roll\_no = " + roll\_no + "\n name = " + name + "]";

    // }

}

// Derived class from Student

class Marks extends Student {

    protected int marks[] = new int[5];

    protected double percentage = 0.0;

    public Marks() {

    }

    public Marks(int roll\_no, String name, int marks[]) {

        super(roll\_no, name);

        this.marks = marks;

    }

    public int[] getMarks() {

        return marks;

    }

    public void setMarks(int marks[]) {

        this.marks = marks;

    }

    public double calculatePercentage() {

        double total = 0.0;

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

            total += marks[i];

        }

        percentage = total / marks.length;

        return percentage;

    }

    public String toString() {

        return "Marks [\n\troll\_no = " + roll\_no + "\n\tname = " + name + ",\n\tmarks = " + Arrays.toString(marks)

                + "\n\tpercentage = " + calculatePercentage() + "%\n]";

    }

    public static void main(String[] args) {

        Marks marks = new Marks(1, "Ezra", new int[] { 100, 90, 80, 70, 60 });

        System.out.println(marks);

    }

}