Nama : Ryandhika Bintang Abiyyi

NIM : A11.2021.13498

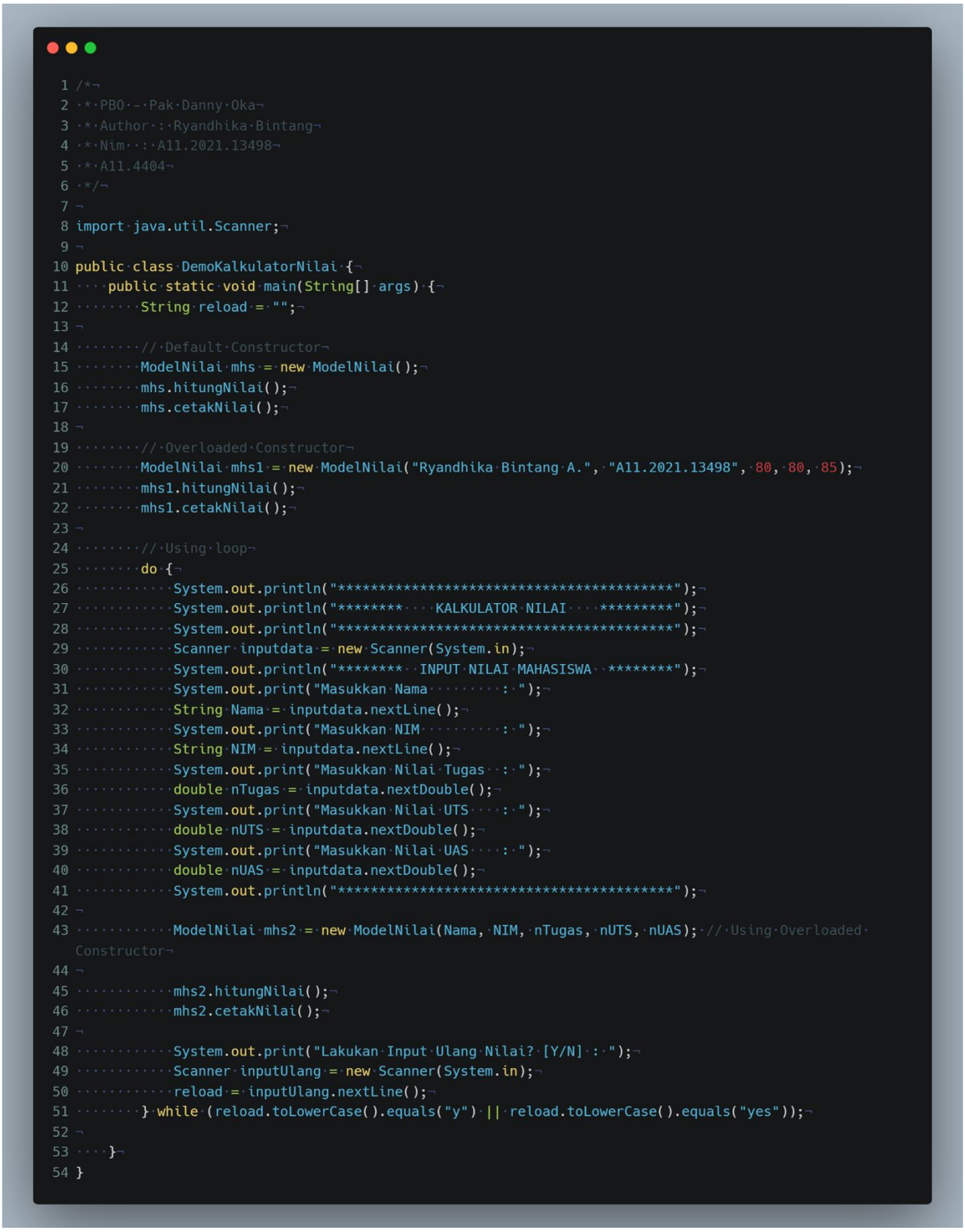
Kelp : A11.4404

Keperluan : Tugas Praktek 1 – Kalkulator Nilai

ModelNilai.java (Sebagai Modeling terhadap object yang dibuat)

```java
/*
 * PBO - Pak Danny Oka
 * Author : Ryandhika Bintang
 * Nim : A11.2021.13498
 * A11.4404
 */

public class ModelNilai {
    private String Nama;
    private String NIM;
    private double nTugas, nUTS, nUAS, nAkhir;
    private double pNilaiTugas, pNilaiUTS, pNilaiUAS;

    ModelNilai() {
        NIM = "anonymous";
        Nama = "anonymous";
        nTugas = 0.0;
        nUTS = 0.0;
        nUAS = 0.0;
    }

    ModelNilai(String Nama, String NIM, double nTugas, double nUTS, double nUAS) {
        this.Nama = Nama;
        this.NIM = NIM;
        this.nTugas = nTugas;
        this.nUTS = nUTS;
        this.nUAS = nUAS;
    }

    void hitungNilai() {
        pNilaiTugas = 0.2;
        pNilaiUTS = 0.35;
        pNilaiUAS = 0.45;
        nAkhir = (nTugas * pNilaiTugas) + (nUTS * pNilaiUTS) + (nUAS * pNilaiUAS);
    }

    void cetakNilai() {
        System.out.println("================================");
        System.out.println("Nama        : " + Nama);
        System.out.println("NIM         : " + NIM);
        System.out.println("Nilai Tugas : " + nTugas);
        System.out.println("Nilai UTS   : " + nUTS);
        System.out.println("Nilai UAS   : " + nUAS);
        System.out.println("Nilai Akhir : " + nAkhir);
        System.out.println("================================");
    }

    public String getNIM() {
        return NIM;
    }

    public String getNama() {
        return Nama;
    }
}
```

DemoKalkulatorNilai.java (Main File / Parent File)



```java
/*
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 */

import java.util.Scanner;

public class DemoKalkulatorNilai {
    public static void main(String[] args) {
        String reload = "";

        // Default Constructor
        ModelNilai mhs = new ModelNilai();
        mhs.hitungNilai();
        mhs.cetakNilai();

        // Overloaded Constructor
        ModelNilai mhs1 = new ModelNilai("Ryandhika Bintang A.", "A11.2021.13498", 80, 80, 85);
        mhs1.hitungNilai();
        mhs1.cetakNilai();

        // Using loop
        do {
            System.out.println("****************************************");
            System.out.println("********    KALKULATOR NILAI    *********");
            System.out.println("****************************************");
            Scanner inputdata = new Scanner(System.in);
            System.out.println("********  INPUT NILAI MAHASISWA  ********");
            System.out.print("Masukkan Nama         : ");
            String Nama = inputdata.nextLine();
            System.out.print("Masukkan NIM          : ");
            String NIM = inputdata.nextLine();
            System.out.print("Masukkan Nilai Tugas  : ");
            double nTugas = inputdata.nextDouble();
            System.out.print("Masukkan Nilai UTS    : ");
            double nUTS = inputdata.nextDouble();
            System.out.print("Masukkan Nilai UAS    : ");
            double nUAS = inputdata.nextDouble();
            System.out.println("****************************************");

            ModelNilai mhs2 = new ModelNilai(Nama, NIM, nTugas, nUTS, nUAS); // Using Overloaded Constructor

            mhs2.hitungNilai();
            mhs2.cetakNilai();

            System.out.print("Lakukan Input Ulang Nilai? [Y/N] : ");
            Scanner inputUlang = new Scanner(System.in);
            reload = inputUlang.nextLine();
        } while (reload.toLowerCase().equals("y") || reload.toLowerCase().equals("yes"));

    }
}
```