PEMROGRAMAN BERBASIS OBJEK

(Tugas 5)

Disusun Oleh:

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PROGRAM STUDI S-1 TEKNIK INFORMATIKA

FAKULTAS MATEMATIKA DAN ILMU PENGETAHUAN ALAM

UNIVERSITAS PADJADJARAN

JATINANGOR

2022

1. Soal 1:

```java
/*
Program : Tugas 1
Nama    : Prames Ray Lapian
NPM     : 140810210059
Kelas   : A
Tanggal : 5 Oktobrer  2022
Desc    : Tugas Pertemuan 5
*/
import java.util.Scanner;

/**
 *
 * @author prame
 */
class Identity {
  Scanner sc = new Scanner(System.in);

  //Variable
  private String nama, npm, waktuMulai, waktuSelesai;
  private int nilai;

  //Constructor #1
  public Identity(){
      this.nilai = 0;
      this.nama = "";
      this.npm = "";
      this.waktuMulai = "";
      this.waktuSelesai = "";
  }

  //Constructor #2
  public Identity(String nama, String npm){
      this.nama = nama;
      this.npm = npm;
  }

  //Setter Nama
  public void setNama(String nama){
      this.nama = nama;
  }

  //Setter NPM
  public void setNPM(String npm){
```

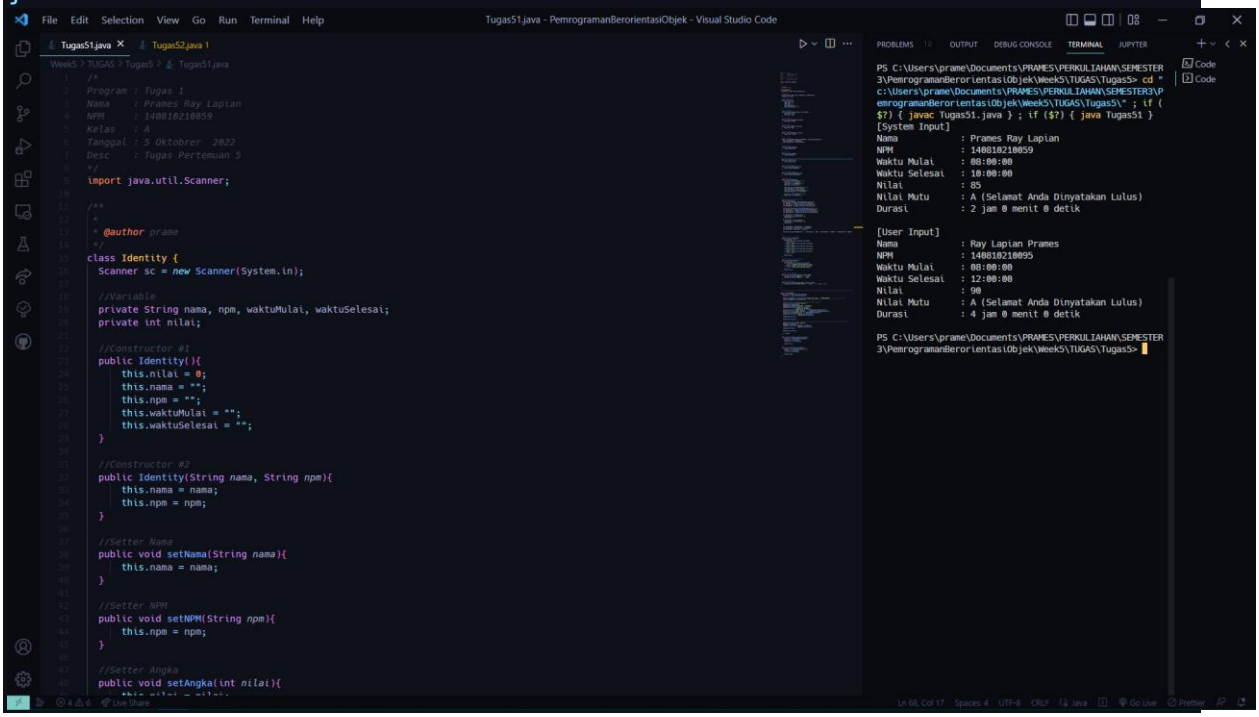
```
    this.npm = npm;
}

//Setter Angka
public void setAngka(int nilai){
    this.nilai = nilai;
}

//Setter Waktu
public void setWaktu(String waktuMulai, String waktuSelesai){
  this.waktuMulai = waktuMulai;
  this.waktuSelesai = waktuSelesai;
}

//Getter Nama
public String getNama(){
    return this.nama;
}

//Getter NPM
public String getNPM(){
    return this.npm;
}

//Getter Nilai
public int getNilai(){
    return this.nilai;
}

//Getter Waktu Mulai
public String getWaktuMulai(){
    return this.waktuMulai;
}

//Getter Waktu Selesai
public String getWaktuSelesai(){
    return this.waktuSelesai;
}

//Method Input
public void inputData(){
    System.out.print("Nama\t\t: ");
    this.nama = sc.nextLine();
    System.out.print("NPM\t\t: ");
    this.npm = sc.nextLine();
```

```
      System.out.print("Waktu Mulai\t: ");
      this.waktuMulai = sc.nextLine();
      System.out.print("Waktu Selesai\t: ");
      this.waktuSelesai = sc.nextLine();

      System.out.print("Nilai\t\t: ");
      this.nilai = sc.nextInt();
  }

  //Method Pencari + Output Durasi
  public void durasi(){
    String strArrMulai[]= this.waktuMulai.split(":");
    int jamMulai = Integer.parseInt(strArrMulai[0]) ;
    int menitMulai = Integer.parseInt(strArrMulai[1]) ;
    int detikMulai = Integer.parseInt(strArrMulai[2]) ;

    String strArrSelesai[]= this.waktuSelesai.split(":");
    int jamSelesai = Integer.parseInt(strArrSelesai[0]);
    int menitSelesai = Integer.parseInt(strArrSelesai[1]);
    int detikSelesai = Integer.parseInt(strArrSelesai[2]);

    if (detikMulai > detikSelesai){
      detikSelesai = detikSelesai + 60;
      menitSelesai--;
    }
    if (menitMulai > menitSelesai){
      menitSelesai = menitSelesai + 60;
      jamSelesai--;
    }

    int durasiMenit = menitSelesai - menitMulai;
    int durasiDetik = detikSelesai - detikMulai;
    int durasiJam = jamSelesai - jamMulai;

    System.out.println("Durasi\t\t: " + durasiJam + " jam " +
durasiMenit + " menit " + durasiDetik + " detik ");

  }

  //Method Pencari Nilai Mutu
  public String nilaiMutu(){
      String mutu = "";
      if (100>=this.nilai && this.nilai>=80){
          mutu = "A";
```

```
        } else if (80>this.nilai && this.nilai>=68){
            mutu = "B";
        } else if (68>this.nilai && this.nilai>=55){
            mutu = "C";
        } else if (55>this.nilai && this.nilai>=45){
            mutu = "D";
        } else if (45>this.nilai && this.nilai>=0){
            mutu = "E";
        }
        return mutu;
    }

    //Method Penentu Status Kelulusan
    public String kelulusan(){
        String lulus = "";
        if (100>=this.nilai && this.nilai>=55){
            lulus = "Selamat Anda Dinyatakan Lulus";
        } else if (55>this.nilai && this.nilai>=0){
            lulus = "Maaf Anda Dinyatakan Gagal";
        }
        return lulus;
    }

    //Method Print Identyty
    public void printId(String nama, String npm){
        System.out.println("Nama\t\t: " + nama);
        System.out.println("NPM\t\t: " + npm);
    }

    //Method Print Hasil
    public void printNilai(String mutu, String lulus){
        System.out.println("Nilai Mutu\t: " + mutu + " (" + lulus +
")");
    }

}

//============================================================================
============================================================================

public class Tugas51 {
    public static void main(String args[]){
      Scanner sc = new Scanner(System.in);
```

```
    Identity angkaSystem = new Identity("Prames Ray Lapian",
"140810210059"); //Test Constructor #2
    Identity angkaUser = new Identity(); //Test Constructor #1

    //System Input : Angka di input langsung didalam codingan
    System.out.println("[System Input]");
    angkaSystem.setAngka(85);
    angkaSystem.setWaktu("08:00:00", "10:00:00");
    angkaSystem.printId(angkaSystem.getNama(),
                        angkaSystem.getNPM());
    System.out.println("Waktu Mulai\t: " +
angkaSystem.getWaktuMulai());
    System.out.println("Waktu Selesai\t: " +
angkaSystem.getWaktuSelesai());
    System.out.println("Nilai\t\t: " + angkaSystem.getNilai());
    angkaSystem.printNilai(angkaSystem.nilaiMutu(),
                           angkaSystem.kelulusan());
    angkaSystem.durasi();

    System.out.println();

    //User Input Parent Class: Angka di input manual oleh User melalui
fungsi yang ada di Class Parent
    System.out.println("[User Input]");
    angkaUser.inputData();
    angkaUser.printNilai( angkaUser.nilaiMutu(),
                          angkaUser.kelulusan());
    angkaUser.durasi();

    System.out.println();

    sc.close();
  }

  static String inputString(String pesan) {
      Scanner sc = new Scanner(System.in);
      System.out.print(pesan);
      String str = sc.nextLine();

      return (str);
  }

  static int inputInt(String pesan) {
      Scanner sc = new Scanner(System.in);
      System.out.print(pesan);
```

```
        int num = sc.nextInt();

        return (num);
    }
}
```



2. Soal 2:

```
/*
Program : Tugas 2
Nama    : Prames Ray Lapian
NPM     : 140810210059
Kelas   : A
Tanggal : 5 Oktober  2022
Desc    : pertemuan 5
*/
import java.util.Scanner;

/**
 *
 * @author prame
 */
class WorkerInfo{
    Scanner sc = new Scanner(System.in);

    //Variable
```

```
    private String nama;
    private int gol;

    //Constructor #1
    public WorkerInfo(){
        this.nama = "";
        this.gol = 0;
    }

    //Constructor #2
    public WorkerInfo(String nama, int gol){
        this.nama = nama;
        this.gol = gol;
    }

    //Setter Nama
    public void setNama(String nama){
        this.nama = nama;
    }

    //Setter Golongan
    public void setGol(int gol){
        this.gol = gol;
    }

    //Getter Nama
    public String getNama(){
        return this.nama;
    }

    //Getter Golongan
    public int getGol(){
        return this.gol;
    }

    //Method Input
    public void input(){
        System.out.print("Nama\t\t: ");
        this.nama = sc.nextLine();
        System.out.print("Golongan\t: ");
        this.gol = sc.nextInt();
    }

    //Method Pencari Gaji Pokok
    public long gajiPokok(int gol){
```

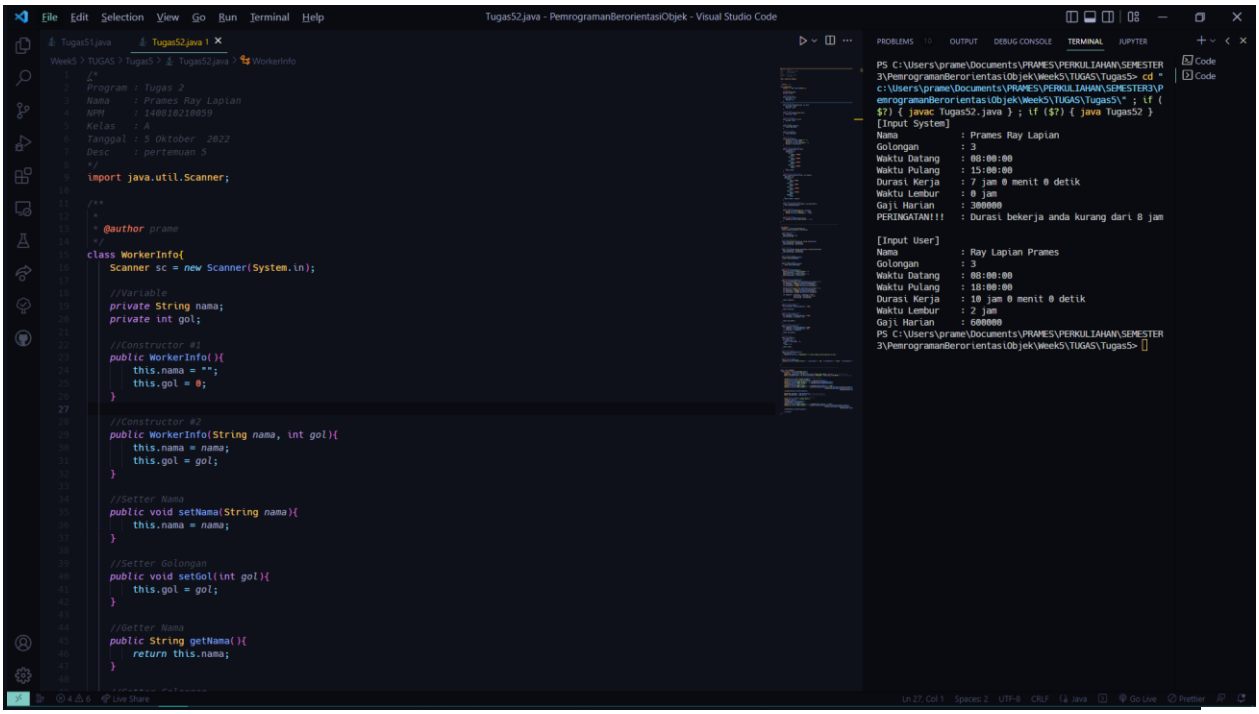
```
        long gapok = 0;
        switch (gol){
            case 1:
                gapok = 150000;
                break;
            case 2:
                gapok = 200000;
                break;
            case 3:
                gapok = 300000;
                break;
            case 4:
                gapok = 500000;
                break;
        }
        return gapok;
    }

    //Method Pencari Gaji Lembur
    public long gajiLembur(int gol, int lembur){
      long biaya = 0;
      switch (gol) {
          case 1:
              biaya = 50000;
              break;
          case 2:
              biaya = 70000;
              break;
          case 3:
              biaya = 150000;
              break;
          case 4:
              biaya = 200000;
              break;
          default:
              break;
      }
      return (biaya * lembur);
    }

    //Method Pencari Gaji Harian
    public long gajiHarian(long gapok, long gajiLembur){
      return gapok+gajiLembur;
    }
```

```java
    //Print Identyty
    public void printId(String nama, int gol){
        System.out.println("Nama\t\t: " + nama);
        System.out.println("Golongan\t: " + gol);
    }

    //Print Gaji Total
    public void printgajiTotal(long a){
        System.out.println("Gaji Total\t: " + a);
    }
}

//-------------------------------------------------------------------
-------------------

class Waktu {
  Scanner sc = new Scanner(System.in);
  private String waktuDatang, waktuPulang;

  //Constructor Waktu #1
  public Waktu(){
    this.waktuDatang = "";
    this.waktuPulang = "";
  }

  //Constructor Waktu #2
  public Waktu(String waktuDatang, String waktuPulang){
    this.waktuDatang = waktuDatang;
    this.waktuPulang = waktuPulang;
  }

  //Setter Waktu
  public void setWaktu(String waktuDatang, String waktuPulang){
    this.waktuDatang = waktuDatang;
    this.waktuPulang = waktuPulang;
  }

  //Getter Waktu Datang
  public String getWaktuDatang(){
    return this.waktuDatang;
  }

  //Getter Waktu Pulang
  public String getWaktuPulang(){
      return this.waktuPulang;
```

```java
}

//Method Input
public void inputDataWaktu(){
  System.out.print("Waktu Datang\t: ");
  this.waktuDatang = sc.nextLine();
  System.out.print("Waktu Pulang\t: ");
  this.waktuPulang = sc.nextLine();
}

//Method Pencari + Output Durasi
public int durasiDalamDetik(){
  String strArrDatang[]= this.waktuDatang.split(":");
  int jamDatang = Integer.parseInt(strArrDatang[0]) ;
  int menitDatang = Integer.parseInt(strArrDatang[1]) ;
  int detikDatang = Integer.parseInt(strArrDatang[2]) ;

  String strArrPulang[]= this.waktuPulang.split(":");
  int jamPulang = Integer.parseInt(strArrPulang[0]);
  int menitPulang = Integer.parseInt(strArrPulang[1]);
  int detikPulang = Integer.parseInt(strArrPulang[2]);

  int lamadetik = (jamPulang - jamDatang) * 3600 +
                  (menitPulang - menitDatang) * 60 +
                  (detikPulang - detikDatang);

  return lamadetik;
}

//Method Pencari Durasi Jam
public int durasiJam(){
  int durasiJam = durasiDalamDetik() / 3600;

  return durasiJam;
}

//Method Pencari Durasi Menit
public int durasiMenit(){
  int lamadetik = durasiDalamDetik() % 3600;
  int durasiMenit = lamadetik / 60;


  return durasiMenit;
}
```

```
  //Method Pencari Durasi Detik
  public int durasiDetik(){
    int lamadetik = durasiDalamDetik() % 3600;
        lamadetik = durasiDalamDetik() % 60;
    int durasiDetik = lamadetik;

    return durasiDetik;
  }

  //Method Lembur
  public int lembur(){
    int lembur = 0;
    if (durasiJam() > 8)
      lembur = durasiJam() - 8;
    else
      lembur = 0;

    return lembur;
  }

  //Method Peringatan
  public void statusPeringatan(){
    if(durasiJam() < 8)
      System.out.println("PERINGATAN!!!\t: Durasi bekerja anda kurang
dari 8 jam");
  }

  //Method Print Durasi
  public void printDurasi(){
    System.out.println("Durasi Kerja\t: " + durasiJam() + " jam " +
durasiMenit() + " menit " + durasiDetik() + " detik ");
  }

}

//-------------------------------------------------------------------
------------------

public class Tugas52 {
  public static void main(String[] args) {
      Scanner sc = new Scanner(System.in);
      WorkerInfo inputSystem = new WorkerInfo("Prames Ray Lapian", 3);
//Test Constructor #2
      Waktu inputWaktuSystem = new Waktu("08:00:00", "15:00:00");
//Test Constructor Waktu #1
```

```java
        //System Input : Angka di input langsung didalam codingan
        System.out.println("[Input System]");
        inputSystem.printId(inputSystem.getNama(),
inputSystem.getGol());
        System.out.println("Waktu Datang\t: " +
inputWaktuSystem.getWaktuDatang());
        System.out.println("Waktu Pulang\t: " +
inputWaktuSystem.getWaktuPulang());
        inputWaktuSystem.printDurasi();
        System.out.println("Waktu Lembur\t: " +
inputWaktuSystem.lembur() + " jam");
        System.out.println("Gaji Harian\t: " +
inputSystem.gajiHarian(inputSystem.gajiPokok(inputSystem.getGol()),
                                                                in
putSystem.gajiLembur(inputSystem.getGol(),

                        inputWaktuSystem.lembur())));
        inputWaktuSystem.statusPeringatan();

        WorkerInfo inputUser = new WorkerInfo(); //Test Constructor #1
        Waktu inputWaktuUser = new Waktu(); //Test Constructor Waktu #1

        //User Input : Angka di input manual oleh User
        System.out.println("\n[Input User]");
        inputUser.input();
        inputWaktuUser.inputDataWaktu();
        inputWaktuUser.printDurasi();
        System.out.println("Waktu Lembur\t: " + inputWaktuUser.lembur()
+ " jam");
        System.out.println("Gaji Harian\t: " +
inputUser.gajiHarian(inputUser.gajiPokok(inputUser.getGol()),
                                                                in
putUser.gajiLembur(inputUser.getGol(),

                        inputWaktuUser.lembur())));
        inputWaktuUser.statusPeringatan();

        sc.close();
    }
}
```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Tugas52.java - PemrogramanBerorientasiObjek - Visual Studio Code
Tugas51.java
Tugas52.java 1
Week5 > TUGAS > Tugas5 > Tugas52.java > WorkerInfo
/*
Program : Tugas 2
Nama : Prames Ray Lapian
NPM : 1408102110059
Kelas : A
Tanggal : 5 Oktober 2022
Desc : pertemuan 5
*/
import java.util.Scanner;
/**
*
* @author prame
*/
class WorkerInfo{
Scanner sc = new Scanner(System.in);
//Variable
private String nama;
private int gol;
//Constructor #1
public WorkerInfo(){
this.nama = "";
this.gol = 0;
}
//Constructor #2
public WorkerInfo(String nama, int gol){
this.nama = nama;
this.gol = gol;
}
//Setter Nama
public void setNama(String nama){
this.nama = nama;
}
//Setter Golongan
public void setGol(int gol){
this.gol = gol;
}
//Getter Nama
public String getNama(){
return this.nama;
}
PROBLEMS 10 OUTPUT DEBUG CONSOLE TERMINAL JUPYTER
PS C:\Users\prame\Documents\PRAMES\PERKULIAHAN\SEMESTER 3\PemrogramanBerorientasiObjek\Week5\TUGAS\Tugas5> cd "c:\Users\prame\Documents\PRAMES\PERKULIAHAN\SEMESTER3\PemrogramanBerorientasiObjek\Week5\TUGAS\Tugas5\" ; if ($?) { javac Tugas52.java } ; if ($?) { java Tugas52 }
[Input System]
Nama : Prames Ray Lapian
Golongan : 3
Waktu Datang : 08:00:00
Waktu Pulang : 15:00:00
Durasi Kerja : 7 jam 0 menit 0 detik
Waktu Lembur : 0 jam
Gaji Harian : 300000
PERINGATAN!!! : Durasi bekerja anda kurang dari 8 jam
[Input User]
Nama : Ray Lapian Prames
Golongan : 3
Waktu Datang : 08:00:00
Waktu Pulang : 18:00:00
Durasi Kerja : 10 jam 0 menit 0 detik
Waktu Lembur : 2 jam
Gaji Harian : 600000
PS C:\Users\prame\Documents\PRAMES\PERKULIAHAN\SEMESTER 3\PemrogramanBerorientasiObjek\Week5\TUGAS\Tugas5>
Code
Code