LAPORAN

PRAKTIKUM

JOBSHEET 1

(ALGORITMA)

Oleh:

Syifa Revalina K. NIM. 2341760041

PROGRAM STUDI D-IV SISTEM INFORMASI BISNIS

JURUSAN TEKNOLOGI INFORMASI

POLITEKNIK NEGERI MALANG

FEBRUARI 2024

Perulangan

```java
import java.util.Scanner;

public class Perulangan28 {
    public static void main(String[] args) {
        Scanner scanner = new Scanner(System.in);

        // Array untuk Nilai Mutu dan Nilai Setara
        double[] nilaiSetara = {0, 1, 2, 2.5, 3, 3.5, 4};
        String[] namaMatkul = new String[5];
        int[] bobotSKS = new int[5];
        char[] nilaiHuruf = new char[5];

        int totalSKS = 0;
        double totalNilaiSetara = 0;
```

```java
        // Input data untuk 5 mata kuliah
        for (int i = 0; i < 5; i++) {
            System.out.println("Masukkan Nama Mata Kuliah ke-" + (i + 1) + ":");
            namaMatkul[i] = scanner.nextLine();

            System.out.println("Masukkan jumlah SKS untuk " + namaMatkul[i] + ":");
            bobotSKS[i] = scanner.nextInt();
            totalSKS += bobotSKS[i];

            System.out.println("Masukkan nilai untuk " + namaMatkul[i] + " (A, A-, B+, dll):");
            scanner.nextLine(); // Mengonsumsi newline
            nilaiHuruf[i] = scanner.nextLine().toUpperCase().charAt(index:0);
```

```java
            // Menghitung Nilai Setara
            for (int j = 0; j < nilaiSetara.length; j++) {
                if (nilaiHuruf[i] == ('A' + j)) {
                    totalNilaiSetara += nilaiSetara[j] * bobotSKS[i];
                    break;
                }
            }
        }

        // Menghitung dan menampilkan IP Semester
        double ipSemester = totalNilaiSetara / totalSKS;
        System.out.printf(format:"IP Semester adalah: %.2f%n", ipSemester);
    }
}
```

Pemilihan

```java
import java.util.Scanner;

public class Pemilihan28 {
    Run | Debug
    public static void main(String[] args) {
        Scanner input08 = new Scanner(System.in);

        System.out.println(x:"Program Menghitung Nilai Akhir");
        System.out.println(x:"======================");
        System.out.print(s:"Masukkan nilai Tugas: ");
        int nilaiTugas = input08.nextInt();
        System.out.print(s:"Masukkan nilai kuis: ");
        int nilaiKuis = input08.nextInt();
        System.out.print(s:"Masukkan nilai UTS: ");
        int nilaiUTS = input08.nextInt();
        System.out.print(s:"Masukkan nilai UAS: ");
        int nilaiUAS = input08.nextInt();

        if (nilaiTugas < 0 || nilaiTugas > 100 ||
            nilaiKuis < 0 || nilaiKuis > 100 ||
            nilaiUTS < 0 || nilaiUTS > 100 ||
            nilaiUAS < 0 || nilaiUAS > 100) {
            System.out.println(x:"======================");
            System.out.println(x:"======================");
            System.out.println(x:"Nilai tidak valid!");
            System.out.println(x:"======================");
            System.out.println(x:"======================");
            return;
        }
```

```java
double nilaiAkhir = (0.2 * nilaiTugas) + (0.2 * nilaiKuis) + (0.3 * nilaiUTS) + (0.3 * nilaiUAS);

String nilaiHuruf;
if (nilaiAkhir >= 80) {
    nilaiHuruf = "A";
} else if (nilaiAkhir >= 73) {
    nilaiHuruf = "B+";
} else if (nilaiAkhir >= 65) {
    nilaiHuruf = "B";
} else if (nilaiAkhir >= 60) {
    nilaiHuruf = "C+";
} else if (nilaiAkhir >= 50) {
    nilaiHuruf = "C";
} else if (nilaiAkhir >= 39) {
    nilaiHuruf = "D";
} else {
    nilaiHuruf = "E";
}
```

```java
double nilaiSetara;
switch (nilaiHuruf) {
    case "A":
        nilaiSetara = 4;
        break;
    case "B+":
        nilaiSetara = 3.5;
        break;
    case "B":
        nilaiSetara = 3;
        break;
    case "C+":
        nilaiSetara = 2.5;
        break;
    case "C":
        nilaiSetara = 2;
        break;
    case "D":
        nilaiSetara = 1;
        break;
    default:
        nilaiSetara = 0;
        break;
}
```

```java
        System.out.println("Nilai akhir: " + nilaiAkhir);
        System.out.println("Nilai huruf: " + nilaiHuruf);
        System.out.println(x:"====================");
        System.out.println(x:"====================");

        String keterangan;
        if (nilaiHuruf.equals(anObject:"A") || nilaiHuruf.equals(anObject:"B+") || nilaiHuruf.equals(anObject:"B") ||
            nilaiHuruf.equals(anObject:"C+") || nilaiHuruf.equals(anObject:"C")) {
            keterangan = "SELAMAT ANDA LULUS";
        } else {
            keterangan = "ANDA TIDAK LULUS";
        }
        System.out.println(keterangan);
    }
}
```

Array

```java
import java.util.Scanner;
public class array28 {

    Run | Debug
    public static void main(String[] args) {
        try (Scanner scanner = new Scanner(System.in)) {
            System.out.println(x:"========================");
            System.out.println(x:"Program Menghitung IP Semester");
            System.out.println(x:"========================");

            double totalNilai = 0;
            int totalSks = 0;

            String[] mataKuliah = {"Pancasila", "Konsep Teknologi Informasi", "Critical Thinking Informasi",
                                   "Matematika Dasar", "Bahasa Inggris", "Dasar Pemrograman", "Praktikum Dasar Pemrog
                                   "Keselamatan dan Kesehatan Kerja"};
            double[] nilaiAngka = new double[mataKuliah.length];
            double[] bobotNilai = new double[mataKuliah.length];

            for (int i = 0; i < mataKuliah.length; i++) {
                System.out.print("Masukkan nilai Angka untuk MK " + mataKuliah[i] + ": ");
                nilaiAngka[i] = scanner.nextDouble();
                bobotNilai[i] = hitungNilaiSetara(nilaiAngka[i]);

                totalNilai += bobotNilai[i] * 3;
                totalSks += 3;
            }
```

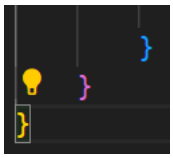
```java
            System.out.println(x:"========================");
            System.out.println(x:"Hasil Konversi Nilai");
            System.out.println(x:"========================");
            System.out.println(x:"MK\t\t\t Nilai Angka\t Nilai Huruf\t Bobot Nilai");
            for (int i = 0; i < mataKuliah.length; i++) {
                System.out.printf(format:"%-30s%-15.2f%-15s%-10.2f\n",      mataKuliah[i],      nilaiAngka[i],
            }

            double ips = totalNilai / totalSks;
            System.out.println(x:"========================");
            System.out.println("IP : " + ips);
        }
    }

    public static double hitungNilaiSetara(double nilaiAngka) {
        if (nilaiAngka > 80) {
            return 4.0;
        } else if (nilaiAngka > 73) {
            return 3.5;
        } else if (nilaiAngka > 65) {
            return 3.0;
        } else if (nilaiAngka > 60) {
            return 2.5;
        } else if (nilaiAngka > 50) {
```

```
            return 3.0;
        } else if (nilaiAngka > 60) {
            return 2.5;
        } else if (nilaiAngka > 50) {
            return 2.0;
        } else if (nilaiAngka > 39) {
            return 1.0;
        } else {
            return 0.0;
        }
    }

    public static String konversiNilaiHuruf(double nilaiAngka) {
        if (nilaiAngka > 80) {
            return "A";
        } else if (nilaiAngka > 73) {
            return "B+";
        } else if (nilaiAngka > 65) {
            return "B";
        } else if (nilaiAngka > 60) {
            return "C+";
        } else if (nilaiAngka > 50) {
            return "C";
        } else if (nilaiAngka > 39) {
            return "D";
        } else {
            return "E";
```



Fungsi

```java
import java.util.Scanner;
public class Fungsi28 {

    public static final String[] NAMA_BUNGA = { "Aglonema", "Keladi  ", "Alocasia", "Mawar   " };

    public static int[][] STOK = {
            { 10, 5, 15, 7 },
            { 6, 11, 9, 12 },
            { 2, 10, 10, 5 },
            { 5, 7, 12, 9 }
    };

    public static final int[] HARGA = { 75000, 50000, 60000, 10000 };
    public static final int[] KEMATIAN = { 1, 2, 0, 5 };

    Run | Debug
    public static void main(String[] args) {
       // Scanner sc = new Scanner(System.in);
        tampilkanPendapatan();
        tampilkanStok(cabang:4);
    }

    public static void tampilkanPendapatan() {
        int [] pendapatan = {0, 0, 0, 0};
        System.out.println(x:"=======================================");
        System.out.println(x:"=======================================");
        for (int i = 0; i < STOK.length; i++) {
            for (int j = 0; j < STOK[i].length; j++) {
                pendapatan[i] += STOK[i][j] * HARGA[j];
            }
            System.out.println("Pendapatan untuk RoyalGarden " + (i + 1) + ": " + pendapatan[i]);
        }
    }

    public static void tampilkanStok(int cabang) {
        System.out.println(x:"=======================================");
        System.out.println("Stok untuk RoyalGarden " + cabang + ": ");
        for (int i = 0; i < STOK[cabang - 1].length; i++) {
            System.out.print(NAMA_BUNGA[i]+" : ");
            System.out.println(STOK[cabang - 1][i]);
        }
        perbaruiStok(cabang);
    }

    public static void perbaruiStok(int cabang) {
        System.out.println(x:"=======================================");
        System.out.println(x:"Stock setelah dikurangi kematian:");
        for (int i = 0; i < STOK[cabang - 1].length; i++) {
            System.out.print(NAMA_BUNGA[i]+" : ");
            System.out.println(STOK[cabang - 1][i]-KEMATIAN[i]);
        }
        System.out.println(x:"=======================================");
        System.out.println(x:"=======================================");
    }
}
```