Jobsheet 1

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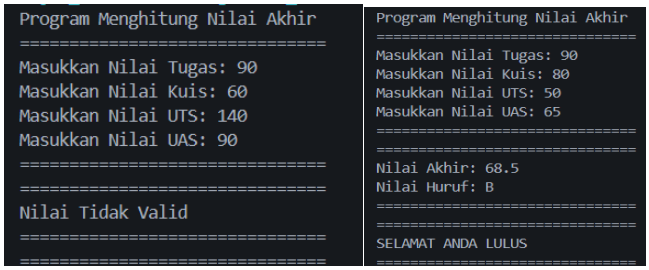
Kelas/Absen: 1G_TI/20

NIM: 254107020110

1. **Pemilihan**

```java
package Jobsheet1;

import java.util.Scanner;

public class PemilihanNilai20 {
    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);

        double Tugas, Kuis, UTS, UAS, P_Tugas, P_Kuis, P_UTS, P_UAS, Total;
        int Counter = 0;


        System.out.println("Program Menghitung Nilai Akhir");
        System.out.println("==============================");
        System.out.print("Masukkan Nilai Tugas: ");
        Tugas = sc.nextDouble();
        System.out.print("Masukkan Nilai Kuis: ");
        Kuis = sc.nextDouble();
        System.out.print("Masukkan Nilai UTS: ");
        UTS = sc.nextDouble();
        System.out.print("Masukkan Nilai UAS: ");
        UAS = sc.nextDouble();
        System.out.println("==============================");

        P_Tugas = Tugas * 0.2;
        P_Kuis = Kuis * 0.2;
        P_UTS = UTS * 0.3;
        P_UAS = UAS * 0.3;

        Total = P_Tugas + P_Kuis + P_UTS + P_UAS;

        if (Tugas > 100 || Kuis > 100 || UTS > 100|| UAS > 100) {
            Counter++;
        }

        System.out.println("==============================");
        if (Counter == 1) {
            System.out.println("Nilai Tidak Valid");
        }else{
            System.out.println("Nilai Akhir: " + Total);
            if (80 < Total && Total <= 100) {
                System.out.println("Nilai Huruf: A");
            }else if (73 < Total) {
                System.out.println("Nilai Huruf: B+");
            }else if (65 <Total) {
                System.out.println("Nilai Huruf: B");
            }else if (60 < Total) {
                System.out.println("Nilai Huruf: C+");
            }else if (50 <Total) {
                System.out.println("Nilai Huruf: C");
            }else if (39 < Total) {
                System.out.println("Nilai Huruf: D");
            }else if (Total <= 39) {
                System.out.println("Nilai Huruf: E");
            }
        }
        System.out.println("==============================");
        System.out.println("==============================");
        if (!(Counter == 1)) {
            if (51 < Total && Total <=100) {
                System.out.println("SELAMAT ANDA LULUS");
                System.out.println("==============================");
            }else{
                System.out.println("SELAMAT ANDA TIDAK LULUS");
                System.out.println("==============================");
            }
        }
    }
}
```

HASIL PROGRAM



```
Program Menghitung Nilai Akhir
==============================
Masukkan Nilai Tugas: 90
Masukkan Nilai Kuis: 60
Masukkan Nilai UTS: 140
Masukkan Nilai UAS: 90
==============================
==============================
Nilai Tidak Valid
==============================
==============================
```

```
Program Menghitung Nilai Akhir
==============================
Masukkan Nilai Tugas: 90
Masukkan Nilai Kuis: 80
Masukkan Nilai UTS: 50
Masukkan Nilai UAS: 65
==============================
==============================
Nilai Akhir: 68.5
Nilai Huruf: B
==============================
==============================
SELAMAT ANDA LULUS
==============================
```

2. Perulangan

```java
package Jobsheet1;

import java.util.Scanner;

public class PerulanganNIM20 {
    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);

        double Nim, AngkaNim;

        System.out.print("Masukkan NIM Anda: ");
        Nim = sc.nextDouble();

        AngkaNim = Nim % 100;

        if (AngkaNim < 10) {
            AngkaNim += 10;
        }

        for (int i = 1; i <= AngkaNim; i++) {

            if(i == 10 || i == 15){
                continue;
            }else if (i % 3 == 0) {
                System.out.print("#");
            }else if (i % 2 == 1) {
                System.out.print("*");
            }else{
                System.out.print(i);
            }
            System.out.print(" ");
        }
    }
}

```

HASIL PROGRAM

```
Masukkan NIM Anda: 254107020110
* 2 # 4 * # * 8 #
```

3. Array

```java
package Jobsheet1;

import java.util.Scanner;

public class ArrayNilai20 {
    public static void main(String[] args) {

        Scanner sc = new Scanner(System.in);

        //[8][1] Untuk MK dan [8][2] Untuk Nilai Huruf
        String[][] ArrayHuruf = new String[8][2];
        //[8][1] Untuk Nilai Angka, [8][2] Untuk Bobot SKS, [8][3] Untuk Nilai Setara
        double[][] ArrayAngka = new double[8][3];
        double[] TotalHitung = new double[8];

        double TotalIP = 0, TotalSKS = 0;
        System.out.println("==================");
        for (int i = 0; i < TotalHitung.length; i++) {
            System.out.print("Masukkan Mata Pelajaran ke-" + (i+1) + ": ");
            ArrayHuruf[i][0] = sc.nextLine();
            System.out.print("Input Bobot Nilai Mata Pelajaran: ");
            ArrayAngka[i][1] = sc.nextDouble();
            sc.nextLine();
        }
        System.out.println("================");

        for (int i = 0; i < TotalHitung.length; i++) {
            System.out.print("Masukkan Nilai " + ArrayHuruf[i][0] + ": ");
            while (true) {
                ArrayAngka[i][0] = sc.nextDouble();
                if (0 < ArrayAngka[i][0] && ArrayAngka[i][0] <= 100 ) {
                    break;
                }else{
                    System.out.println("Nilai Tidak Sesuai, Mohon Coba Kembali");
                    continue;
                }
            }
        }

        for (int i = 0; i < TotalHitung.length; i++) {
            if (80 < ArrayAngka[i][0] && ArrayAngka[i][0] <= 100) {
                ArrayHuruf[i][1] = "A";
                ArrayAngka[i][2] = 4;
            }else if (73 < ArrayAngka[i][0]) {
                ArrayHuruf[i][1] = "B+";
                ArrayAngka[i][2] = 3.5;
            }else if (65 < ArrayAngka[i][0]) {
                ArrayHuruf[i][1] = "B";
                ArrayAngka[i][2] = 3;
            }else if (60 < ArrayAngka[i][0]) {
                ArrayHuruf[i][1] = "C+";
                ArrayAngka[i][2] = 2.5;
            }else if (50 <ArrayAngka[i][0]) {
                ArrayHuruf[i][1] = "C";
                ArrayAngka[i][2] = 2;
            }else if (39 < ArrayAngka[i][0]) {
                ArrayHuruf[i][1] = "D";
                ArrayAngka[i][2] = 1;
            }else if (ArrayAngka[i][0] <= 39) {
                ArrayHuruf[i][1] = "E";
                ArrayAngka[i][2] = 0;
            }
        }

        for (int i = 0; i < TotalHitung.length; i++) {
            TotalHitung[i] = ArrayAngka[i][1] * ArrayAngka[i][2];
            TotalIP += TotalHitung[i];
            TotalSKS += ArrayAngka[i][1];
        }

        System.out.println("Nilai hasil konversi");
        System.out.println("=============");
        System.out.println("MATA KULIAH | NILAI ANGKA | NILAI HURUF | BOBOT NILAI");

        for(int i = 0; i < TotalHitung.length; i++){
            System.out.printf("| %-40s | %-10.2f | %-11s | %-11.2f |\n",
                ArrayHuruf[i][0], ArrayAngka[i][0], ArrayHuruf[i][1], ArrayAngka[i][2]);
        }

        System.out.println("IP: " + (TotalIP / TotalSKS));

    }
}
```

HASIL PROGRAM

```
==================
Masukkan Mata Pelajaran ke-1: Pancasila
Input Bobot Nilai Mata Pelajaran: 2
Masukkan Mata Pelajaran ke-2: KTI
Input Bobot Nilai Mata Pelajaran: 2
Masukkan Mata Pelajaran ke-3: MatDas
Input Bobot Nilai Mata Pelajaran: 4
Masukkan Mata Pelajaran ke-4: B.Ing
Input Bobot Nilai Mata Pelajaran: 3
Masukkan Mata Pelajaran ke-5: Daspro
Input Bobot Nilai Mata Pelajaran: 6
Masukkan Mata Pelajaran ke-6: Praktikum Daspro
Input Bobot Nilai Mata Pelajaran: 6
Masukkan Mata Pelajaran ke-7: CTPS
Input Bobot Nilai Mata Pelajaran: 2
Masukkan Mata Pelajaran ke-8: K3
Input Bobot Nilai Mata Pelajaran: 2
================
Masukkan Nilai Pancasila: 75
Masukkan Nilai KTI: 85
Masukkan Nilai MatDas: 85
Masukkan Nilai B.Ing: 85
Masukkan Nilai Daspro: 62
Masukkan Nilai Praktikum Daspro: 62
Masukkan Nilai CTPS: 70
Masukkan Nilai K3: 85
Nilai hasil konversi
============
MATA KULIAH | NILAI ANGKA | NILAI HURUF | BOBOT NILAI
| Pancasila                          | 75.00       | B+           | 3.50        |
| KTI                                | 85.00       | A            | 4.00        |
| MatDas                             | 85.00       | A            | 4.00        |
| B.Ing                              | 85.00       | A            | 4.00        |
| Daspro                             | 62.00       | C+           | 2.50        |
| Praktikum Daspro                   | 62.00       | C+           | 2.50        |
| CTPS                               | 70.00       | B            | 3.00        |
| K3                                 | 85.00       | A            | 4.00        |
IP: 3.2222222222222223
```

4. Fungsi

```java
package Jobsheet1;

public class FungsiCabang20 {

    private static double[][] Stock = {{10, 5, 15, 7},
                                       {6, 11, 9, 12},
                                       {2, 10, 10, 5},
                                       {5, 7, 12, 9}};
    private static double[] Harga = {75000, 50000, 60000, 10000};

    public static void main(String[] args) {
        MenghitungHarga();
        Status();
    }

    public static void MenghitungHarga(){

        System.out.println("=== PENDAPATAN SETIAL CABANG ===");

        int[] Total = new int[4];
        for (int i = 0; i < Stock.length; i++) {
            for (int j = 0; j < Stock[i].length; j++) {
                Total[i] += Stock[i][j] * Harga[j];
            }
        }

        for (int i = 0; i < Total.length; i++) {
            System.out.println("Royal Garden " + (i+1) + ": Rp. " + Total[i]);
        }
        System.out.println("================================");
        System.out.println("");
    }

    private static void Status(){
        System.out.println("=== STATUS EVALUASI ===");

        int[] Total = new int[4];
        for (int i = 0; i < Stock.length; i++) {
            for (int j = 0; j < Stock[i].length; j++) {
                Total[i] += Stock[i][j] * Harga[j];
            }
        }

        for (int i = 0; i < Total.length; i++) {
            if (Total[i] > 1500000 && Total[i] <= 1500000) {
                System.out.println("Royal Garden " + (i+1) + ": Rp. " + Total[i] + " | Status: Sangat Baik");
            }else{
                System.out.println("Royal Garden " + (i+1) + ": Rp. " + Total[i] + " | Status: Perlu Evaluasi");
            }
        }
        System.out.println("================================");
    }
}
```

HASIL PROGRAM

```
=== PENDAPATAN SETIAL CABANG ===
Royal Garden 1: Rp. 1970000
Royal Garden 2: Rp. 1660000
Royal Garden 3: Rp. 1300000
Royal Garden 4: Rp. 1535000
==================================

=== STATUS EVALUASI ===
Royal Garden 1: Rp. 1970000 | Status: Perlu Evaluasi
Royal Garden 2: Rp. 1660000 | Status: Perlu Evaluasi
Royal Garden 3: Rp. 1300000 | Status: Perlu Evaluasi
Royal Garden 4: Rp. 1535000 | Status: Perlu Evaluasi
==================================
```

- **Tugas 1**

```java
package Jobsheet1;

import java.util.Scanner;

public class Tugas1 {

    private static char[] Kode = {'A','B','D','E','F','G','H','L','N','T'};
    private static char[][] PlatNomor = {{'B','A','N','T','E','N'},
                                         {'J','A','K','A','R','T','A'},
                                         {'B','A','N','D','U','N','G'},
                                         {'C','I','R','E','B','O','N'},
                                         {'B','O','G','O','R'},
                                         {'P','E','K','A','L','O','N','G','A','N'},
                                         {'S','E','M','A','R','A','N','G'},
                                         {'S','U','R','A','B','A','Y','A'},
                                         {'M','A','L','A','N','G'},
                                         {'T','E','G','A','L'}};

    public static void main(String[] args) {
        SearchingPlat();
    }

    public static void SearchingPlat(){
        Scanner sc = new Scanner(System.in);

        System.out.print("Input Kode Kota: ");
        char Mencari = sc.next().charAt(0);

        int counter = 0;

        for (int i = 0; i < Kode.length; i++) {
            if (Kode[i] == Mencari) {
                counter = i;
            }
        }

        for (int i = 0; i < PlatNomor[counter].length; i++) {
           System.out.print(PlatNomor[counter][i]);
        }

    }
}

```

HASIL PROGRAM

```
Input Kode Kota: G
PEKALONGAN
```

- **TUGAS 2**

```java
package Jobsheet1;

import java.util.Scanner;

public class Tugas2 {

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

        System.out.print("Masukkan jumlah jadwal kuliah: ");
        int n = sc.nextInt();
        sc.nextLine();

        String[][] jadwal = new String[n][4];

        inputJadwal(jadwal, n, sc);

        int pilihan;
        do {
            System.out.println("\n=== MENU JADWAL KULIAH ===");
            System.out.println("1. Tampilkan seluruh jadwal (tabel)");
            System.out.println("2. Tampilkan jadwal berdasarkan hari tertentu");
            System.out.println("3. Tampilkan jadwal berdasarkan nama mata kuliah");
            System.out.println("4. Keluar");
            System.out.print("Pilih menu (1-4): ");
            pilihan = sc.nextInt();
            sc.nextLine();

            switch (pilihan) {
                case 1:
                    System.out.println("\n--- Seluruh Jadwal Kuliah ---");
                    tampilkanJadwal(jadwal, n);
                    break;
                case 2:
                    System.out.print("Masukkan hari yang dicari: ");
                    String hari = sc.nextLine();
                    tampilkanJadwalHari(jadwal, n, hari);
                    break;
                case 3:
                    System.out.print("Masukkan nama mata kuliah (bisa sebagian): ");
                    String mk = sc.nextLine();
                    tampilkanJadwalMataKuliah(jadwal, n, mk);
                    break;
                case 4:
                    System.out.println("Program selesai.");
                    break;
                default:
                    System.out.println("Pilihan tidak valid.");
            }
        } while (pilihan != 4);

        sc.close();
    }


    static void inputJadwal(String[][] jadwal, int n, Scanner sc) {
        for (int i = 0; i < n; i++) {
            System.out.printf("--- Jadwal %d ---\n", i + 1);
            System.out.print("Nama Mata Kuliah: ");
            jadwal[i][0] = sc.nextLine();
            System.out.print("Ruang: ");
            jadwal[i][1] = sc.nextLine();
            System.out.print("Hari Kuliah: ");
            jadwal[i][2] = sc.nextLine();
            System.out.print("Jam Kuliah: ");
            jadwal[i][3] = sc.nextLine();
        }
    }


    static void tampilkanJadwal(String[][] jadwal, int n) {
        System.out.printf("%-20s %-20s %-10s %-15s%n",
                "Mata Kuliah", "Ruang", "Hari", "Jam");
        for (int i = 0; i < n; i++) {
            System.out.printf("%-20s %-20s %-10s %-15s%n",
                    jadwal[i][0], jadwal[i][1], jadwal[i][2], jadwal[i][3]);
        }
    }


    static void tampilkanJadwalHari(String[][] jadwal, int n, String hari) {
        System.out.printf("=== Jadwal Kuliah Hari %s ===%n", hari.trim());
        System.out.printf("%-20s %-20s %-10s %-15s%n",
                "Mata Kuliah", "Ruang", "Hari", "Jam");

        boolean ditemukan = false;
        for (int i = 0; i < n; i++) {
            if (jadwal[i][2].equalsIgnoreCase(hari.trim())) {
                System.out.printf("%-20s %-20s %-10s %-15s%n",
                        jadwal[i][0], jadwal[i][1], jadwal[i][2], jadwal[i][3]);
                ditemukan = true;
            }
        }

        if (!ditemukan) {
            System.out.println("Tidak ada jadwal pada hari tersebut.");
        }
    }


    static void tampilkanJadwalMataKuliah(String[][] jadwal, int n, String mk) {
        System.out.printf("--- Jadwal Mata Kuliah yang mengandung: %s ---%n", mk.trim());
        System.out.printf("%-20s %-20s %-10s %-15s%n",
                "Mata Kuliah", "Ruang", "Hari", "Jam");

        boolean ditemukan = false;
        for (int i = 0; i < n; i++) {
            if (jadwal[i][0].toLowerCase().contains(mk.toLowerCase().trim())) {
                System.out.printf("%-20s %-20s %-10s %-15s%n",
                        jadwal[i][0], jadwal[i][1], jadwal[i][2], jadwal[i][3]);
                ditemukan = true;
            }
        }

        if (!ditemukan) {
            System.out.println("Tidak ada jadwal dengan nama tersebut.");
        }
    }
}

```

HASIL PROGRAM

```
Masukkan jumlah jadwal kuliah: 5
=== Jadwal 1 ===
Nama Mata Kuliah: Daspro
Ruang: Ruang teori 2
Hari Kuliah: Senin
Jam Kuliah: 10.30
=== Jadwal 2 ===
Nama Mata Kuliah: Praktikum Daspro
Ruang: Ruang Praktikum 5
Hari Kuliah: Selasa
Jam Kuliah: 7.30
=== Jadwal 3 ===
Nama Mata Kuliah: KTI
Ruang: Ruang 8
Hari Kuliah: Jumat
Jam Kuliah: 13.00
=== Jadwal 4 ===
Nama Mata Kuliah: CTPS
Ruang: Ruang 5
Hari Kuliah: Rabu
Jam Kuliah: 14.00
=== Jadwal 5 ===
Nama Mata Kuliah: K3
Ruang: Ruang 7
Hari Kuliah: Kamis
Jam Kuliah: 10.30
```

```
=== MENU JADWAL KULIAH ===
1. Tampilkan seluruh jadwal (tabel)
2. Tampilkan jadwal berdasarkan hari tertentu
3. Tampilkan jadwal berdasarkan nama mata kuliah
4. Keluar
Pilih menu (1-4): 1

=== Seluruh Jadwal Kuliah ===
Mata Kuliah          Ruang                Hari       Jam
Daspro               Ruang teori 2        Senin      10.30
Praktikum Daspro     Ruang Praktikum 5    Selasa     7.30
KTI                  Ruang 8              Jumat      13.00
CTPS                 Ruang 5              Rabu       14.00
K3                   Ruang 7              Kamis      10.30

=== MENU JADWAL KULIAH ===
1. Tampilkan seluruh jadwal (tabel)
2. Tampilkan jadwal berdasarkan hari tertentu
3. Tampilkan jadwal berdasarkan nama mata kuliah
4. Keluar
Pilih menu (1-4): 2
Masukkan hari yang dicari: kamis
=== Jadwal Kuliah Hari kamis ===
Mata Kuliah          Ruang                Hari       Jam
K3                   Ruang 7              Kamis      10.30

=== MENU JADWAL KULIAH ===
1. Tampilkan seluruh jadwal (tabel)
2. Tampilkan jadwal berdasarkan hari tertentu
3. Tampilkan jadwal berdasarkan nama mata kuliah
4. Keluar
Pilih menu (1-4): 3
Masukkan nama mata kuliah (bisa sebagian): Ctps
=== Jadwal Mata Kuliah yang mengandung: Ctps ===
Mata Kuliah          Ruang                Hari       Jam
CTPS                 Ruang 5              Rabu       14.00
```