NAMA : VANESA MARDIANA PUTRI

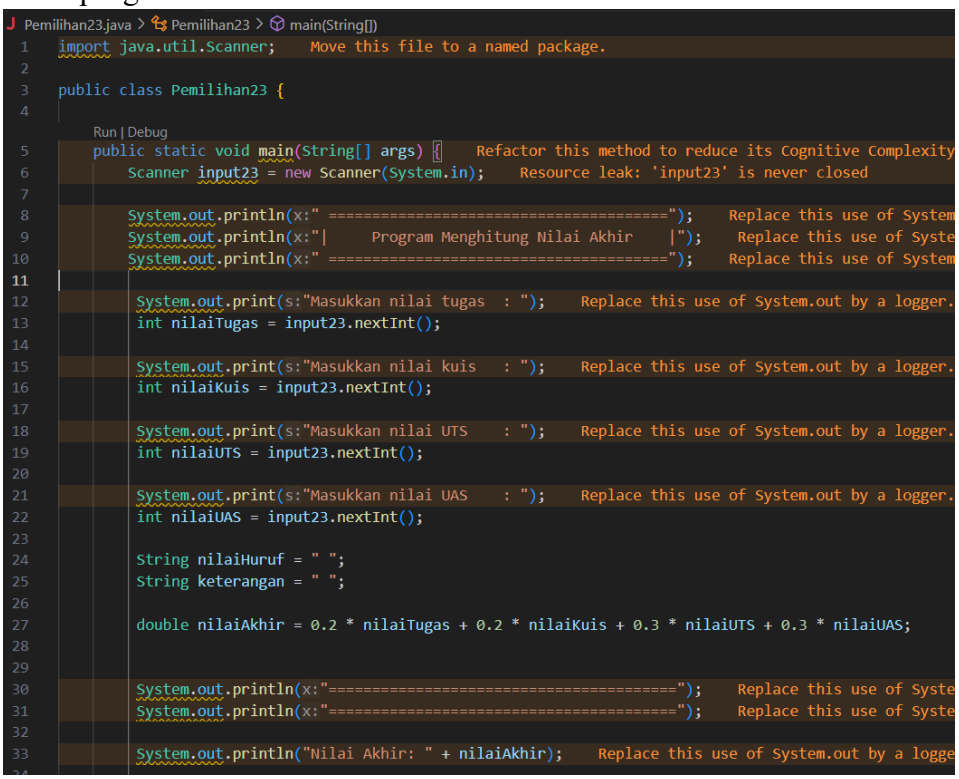
NOMOR : 23

NIM : 244107020129

KELAS : TI-1B

1. **Pemilihan**

   Kode program :



```
Pemilihan23.java > Pemilihan23 > main(String[])
1   import java.util.Scanner;    Move this file to a named package.
2
3   public class Pemilihan23 {
4
        Run | Debug
5       public static void main(String[] args) {    Refactor this method to reduce its Cognitive Complexity
6           Scanner input23 = new Scanner(System.in);    Resource leak: 'input23' is never closed
7
8           System.out.println(x:" ======================================");    Replace this use of System
9           System.out.println(x:"|     Program Menghitung Nilai Akhir    |");    Replace this use of Syste
10          System.out.println(x:" ======================================");    Replace this use of System
11
12          System.out.print(s:"Masukkan nilai tugas  : ");    Replace this use of System.out by a logger.
13          int nilaiTugas = input23.nextInt();
14
15          System.out.print(s:"Masukkan nilai kuis   : ");    Replace this use of System.out by a logger.
16          int nilaiKuis = input23.nextInt();
17
18          System.out.print(s:"Masukkan nilai UTS    : ");    Replace this use of System.out by a logger.
19          int nilaiUTS = input23.nextInt();
20
21          System.out.print(s:"Masukkan nilai UAS    : ");    Replace this use of System.out by a logger.
22          int nilaiUAS = input23.nextInt();
23
24          String nilaiHuruf = " ";
25          String keterangan = " ";
26
27          double nilaiAkhir = 0.2 * nilaiTugas + 0.2 * nilaiKuis + 0.3 * nilaiUTS + 0.3 * nilaiUAS;
28
29
30          System.out.println(x:"======================================");    Replace this use of Syste
31          System.out.println(x:"======================================");    Replace this use of Syste
32
33          System.out.println("Nilai Akhir: " + nilaiAkhir);    Replace this use of System.out by a logge
```

```java
        if (nilaiTugas >= 0 && nilaiTugas <= 100 &&
                nilaiKuis >= 0 && nilaiKuis <= 100 &&
                nilaiUTS >= 0 && nilaiUTS <= 100 &&
                nilaiUAS >= 0 && nilaiUAS <= 100) {

            if (nilaiAkhir > 80 && nilaiAkhir <= 00) {
                nilaiHuruf = "A";
                keterangan = "LULUS";    Define a constant instead of duplicating this literal "LULUS" 5 times. [+5 lo
            } else if (nilaiAkhir > 73 && nilaiAkhir <= 80) {
                nilaiHuruf = "B+";
                keterangan = "LULUS";
            } else if (nilaiAkhir > 65 && nilaiAkhir <= 73) {
                nilaiHuruf = "B";
                keterangan = "LULUS";
            } else if (nilaiAkhir > 60 && nilaiAkhir <= 65) {
                nilaiHuruf = "C+";
                keterangan = "LULUS";
            } else if (nilaiAkhir > 50 && nilaiAkhir <= 60) {
                nilaiHuruf = "C";
                keterangan = "LULUS";
            } else if (nilaiAkhir > 39 && nilaiAkhir <= 50) {
                nilaiHuruf = "D";
                keterangan = "TIDAK LULUS";
            } else if (nilaiAkhir <= 39) {
                nilaiHuruf = "E";
                keterangan = "TIDAK LULUS";
            }

            System.out.println("Nilai Huruf: " + nilaiHuruf);    Replace this use of System.out by a logger.
            System.out.println("Keterangan: " + keterangan);    Replace this use of System.out by a logger.

        } else {
            System.out.println(x:"Nilai tidak valid");    Replace this use of System.out by a logger.
```

```java
        } else {
            System.out.println(x:"Nilai tidak valid");    Replace thi
        }

    }
}
```

Hasil run program :

```
 ======================================
|     Program Menghitung Nilai Akhir    |
 ======================================
Masukkan nilai tugas (0-100)  : 85
Masukkan nilai kuis (0-100)   : 90
Masukkan nilai UTS (0-100)    : 120
Masukkan nilai UAS (0-100)    : 70
======================================
======================================
Nilai Akhir: 92.0
Nilai tidak valid
PS D:\kuliah\smt 2\alsd\praktikum-alsd-1>
```

```
 ======================================
|     Program Menghitung Nilai Akhir    |
 ======================================
Masukkan nilai tugas (0-100)  : 90
Masukkan nilai kuis (0-100)   : 40
Masukkan nilai UTS (0-100)    : 75
Masukkan nilai UAS (0-100)    : 85
======================================
======================================
Nilai Akhir: 74.0
Nilai Huruf: B+
Keterangan: LULUS
```

2. **Perulangan**

Kode program :

```java
import java.util.Scanner;    Move this file to a named package.

public class Perulangan23 {

    Run | Debug
    public static void main(String[] args) {
        Scanner input = new Scanner(System.in);    Resource leak: 'input' is never closed

        System.out.print(s:"Masukkan NIM : ");    Replace this use of System.out by a logger.
        long nim = input.nextLong();

        int duaDigitTerakhir = (int) (nim % 100);

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

        for (int i = 1; i <= duaDigitTerakhir; i++) {
            if (i != 6 && i != 10) {
                if (i % 2 == 0) {
                    System.out.print(i + " ");    Replace this use of System.out by a logger.
                } else {
                    System.out.print(s:"* ");    Replace this use of System.out by a logger.
                }
            }
        }
    }
```

Hasil run kode program :

```
Masukkan NIM : 2341720102
* 2 * 4 * * 8 * * 12
```

3. Array

Kode program

```java
import java.util.Scanner;    Move this file to a named package.

public class Array23 {
    Run | Debug
    public static void main(String[] args) {    Refactor this method to reduce its Cognitive Compl
        Scanner input = new Scanner(System.in);    Resource leak: 'input' is never closed

        String[] mataKuliah = { "Pancasila", "KTI", "CTPS",
                "Matematika Dasar",
                "Bahasa Inggris", "Dasar Pemrograman", "Praktikum Dasar Pemrograman",
                "K3" };
        int[] bobotSKS = { 3, 3, 3, 3, 2, 3, 2, 2 };
        double[] nilaiAngka = new double[mataKuliah.length];
        String[] nilaiHuruf = new String[mataKuliah.length];

        double totalBobotNilai = 0;
        int totalSKS = 0;

        System.out.println(x:" ======================================");    Define a constant ins
        System.out.println(x:"|     Program Menghitung Nilai Akhir    |");    Replace this use of
        System.out.println(x:" ======================================");    Replace this use of S
        for (int i = 0; i < mataKuliah.length; i++) {
            System.out.print("Masukkan nilai angka untuk MK " + mataKuliah[i] + " : ");    Replace
            nilaiAngka[i] = input.nextDouble();

            //menghitung nilai setara
            if (nilaiAngka[i] > 80 && nilaiAngka[i] <= 100) {
                nilaiHuruf[i] = "A";
                nilaiAngka[i] = 4.0;
            } else if (nilaiAngka[i] > 73 && nilaiAngka[i] <= 80) {
                nilaiHuruf[i] = "B+";
                nilaiAngka[i] = 3.5;
            } else if (nilaiAngka[i] > 65 && nilaiAngka[i] <=73) {
                nilaiHuruf[i] = "B";
                nilaiAngka[i] = 3.0;
            } else if (nilaiAngka[i] > 60 && nilaiAngka[i] <= 65) {
                nilaiHuruf[i] = "C+";
```

```java
public static void main(String[] args) {    Refactor this method to reduce its Cognitive Complexity from 16 to
        } else if (nilaiAngka[i] > 60 && nilaiAngka[i] <= 65) {
            nilaiHuruf[i] = "C+";
            nilaiAngka[i] = 2.5;
        } else if (nilaiAngka[i] > 50 && nilaiAngka[i] <= 60) {
            nilaiHuruf[i] = "C";
            nilaiAngka[i] = 2.0;
        } else if (nilaiAngka[i] > 29 && nilaiAngka[i] <= 50) {
            nilaiHuruf[i] = "D";
            nilaiAngka[i] = 1.0;
        } else if (nilaiAngka[i] <= 39) {
            nilaiHuruf[i] = "E";
            nilaiAngka[i] = 0.0;
        }

        //menghitung total bobot nilai dan total SKS
        totalBobotNilai += nilaiAngka[i] * bobotSKS[i];
        totalSKS += bobotSKS[i];
    }

    System.out.println(x:" ======================================");    Replace this use of System.out by a l
    System.out.println(x:"|           Hasil Konversi           |:");    Replace this use of System.out by a l
    System.out.println(x:" ======================================");    Replace this use of System.out by a l
    System.out.printf(format:"%-30s %-12s %-12s %-12s %-12s%n", ...args:"Nama Matkul", "Nilai Angka", "Nilai H
            "Bobot SKS");
    for (int i = 0; i < mataKuliah.length; i++) {
        System.out.printf(format:"%-30s %-12.2f %-12s %-12d %-12d%n", mataKuliah[i], nilaiAngka[i], nilaiHuruf
                (int) (nilaiAngka[i] * bobotSKS[i]),
                bobotSKS[i]);
    }

    double ipSemester = totalBobotNilai / totalSKS;

    System.out.println("\nIP Semester Anda: " + ipSemester);    Replace this use of System.out by a logger.
}
}
```

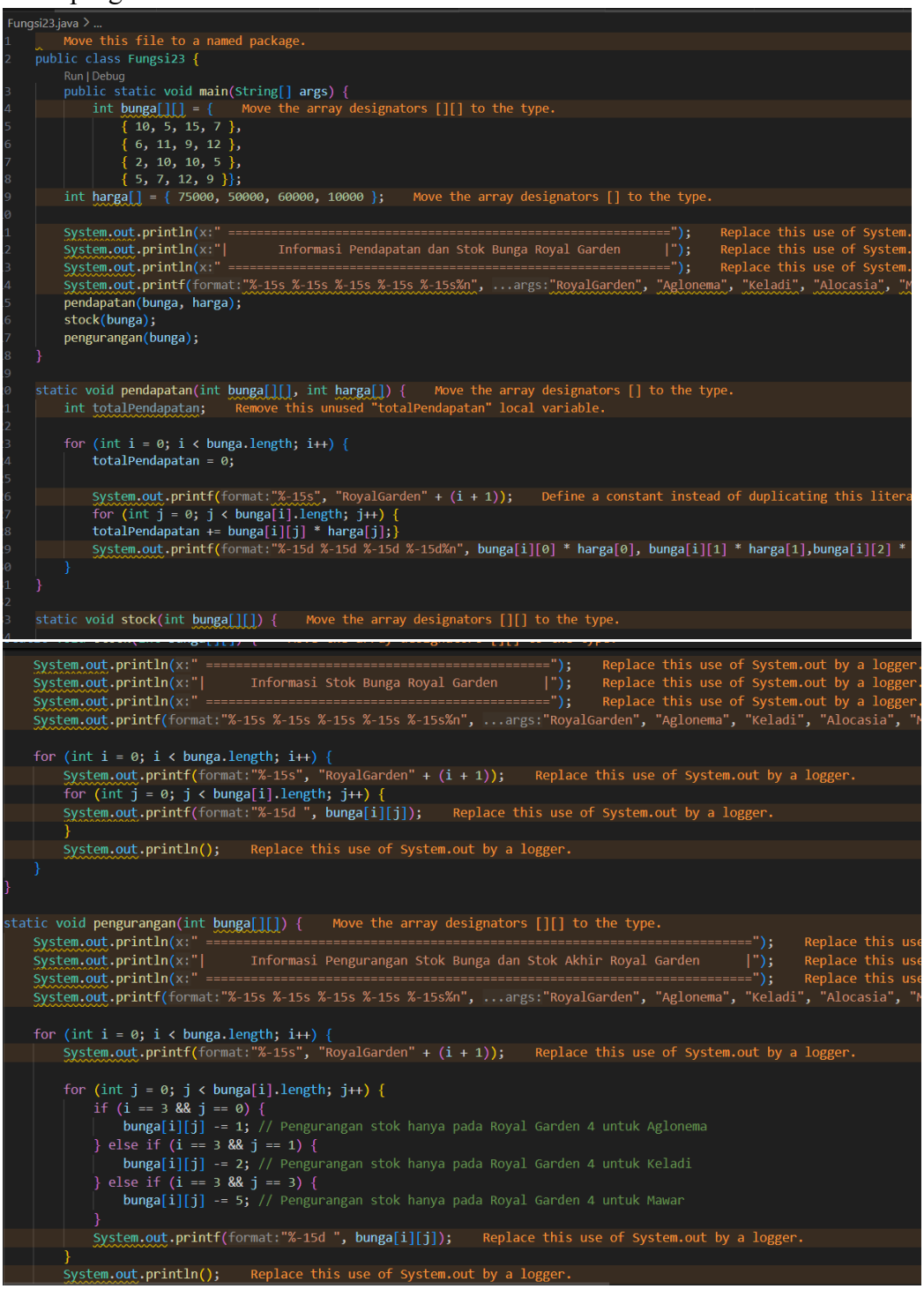
Hasil run kode program :

```
 ====================================
|     Program Menghitung Nilai Akhir    |
 ====================================
Masukkan nilai angka untuk MK Pancasila : 75
Masukkan nilai angka untuk MK KTI : 85
Masukkan nilai angka untuk MK CTPS : 70
Masukkan nilai angka untuk MK Matematika Dasar : 85
Masukkan nilai angka untuk MK Bahasa Inggris : 85
Masukkan nilai angka untuk MK Dasar Pemrograman : 62
Masukkan nilai angka untuk MK Praktikum Dasar Pemrograman : 62
Masukkan nilai angka untuk MK K3 : 85
 ====================================
|           Hasil Konversi           |:
 ====================================
Nama Matkul                   Nilai Angka  Nilai Huruf  Bobot Nilai  Bobot SKS
Pancasila                     3.50         B+           10           3
KTI                           4.00         A            12           3
CTPS                          3.00         B            9            3
Matematika Dasar              4.00         A            12           3
Bahasa Inggris                4.00         A            8            2
Dasar Pemrograman             2.50         C+           7            3
Praktikum Dasar Pemrograman   2.50         C+           5            2
K3                            4.00         A            8            2

IP Semester Anda: 3.4285714285714284
PS D:\kuliah\smt 2\alsd\praktikum-alsd-1>
```

4. Fungsi

Kode program :



```
Fungsi23.java > ...
1   Move this file to a named package.
2   public class Fungsi23 {
        Run | Debug
3       public static void main(String[] args) {
4           int bunga[][] = {    Move the array designators [][] to the type.
5               { 10, 5, 15, 7 },
6               { 6, 11, 9, 12 },
7               { 2, 10, 10, 5 },
8               { 5, 7, 12, 9 }};
9       int harga[] = { 75000, 50000, 60000, 10000 };    Move the array designators [] to the type.
0
1       System.out.println(x:" ============================================================");    Replace this use of System.
2       System.out.println(x:"|       Informasi Pendapatan dan Stok Bunga Royal Garden      |");    Replace this use of System.
3       System.out.println(x:" ============================================================");    Replace this use of System.
4       System.out.printf(format:"%-15s %-15s %-15s %-15s %-15s%n", ...args:"RoyalGarden", "Aglonema", "Keladi", "Alocasia", "M
5       pendapatan(bunga, harga);
6       stock(bunga);
7       pengurangan(bunga);
8   }
9
0   static void pendapatan(int bunga[][], int harga[]) {    Move the array designators [] to the type.
1       int totalPendapatan;    Remove this unused "totalPendapatan" local variable.
2
3       for (int i = 0; i < bunga.length; i++) {
4           totalPendapatan = 0;
5
6           System.out.printf(format:"%-15s", "RoyalGarden" + (i + 1));    Define a constant instead of duplicating this litera
7           for (int j = 0; j < bunga[i].length; j++) {
8           totalPendapatan += bunga[i][j] * harga[j];}
9           System.out.printf(format:"%-15d %-15d %-15d %-15d%n", bunga[i][0] * harga[0], bunga[i][1] * harga[1],bunga[i][2] *
0       }
1   }
2
3   static void stock(int bunga[][]) {    Move the array designators [][] to the type.
```

```
    System.out.println(x:" ========================================");    Replace this use of System.out by a logger.
    System.out.println(x:"|      Informasi Stok Bunga Royal Garden      |");    Replace this use of System.out by a logger.
    System.out.println(x:" ========================================");    Replace this use of System.out by a logger.
    System.out.printf(format:"%-15s %-15s %-15s %-15s %-15s%n", ...args:"RoyalGarden", "Aglonema", "Keladi", "Alocasia", "M

    for (int i = 0; i < bunga.length; i++) {
        System.out.printf(format:"%-15s", "RoyalGarden" + (i + 1));    Replace this use of System.out by a logger.
        for (int j = 0; j < bunga[i].length; j++) {
        System.out.printf(format:"%-15d ", bunga[i][j]);    Replace this use of System.out by a logger.
        }
        System.out.println();    Replace this use of System.out by a logger.
    }
}

static void pengurangan(int bunga[][]) {    Move the array designators [][] to the type.
    System.out.println(x:" ========================================================================");    Replace this use
    System.out.println(x:"|      Informasi Pengurangan Stok Bunga dan Stok Akhir Royal Garden      |");    Replace this use
    System.out.println(x:" ========================================================================");    Replace this use
    System.out.printf(format:"%-15s %-15s %-15s %-15s %-15s%n", ...args:"RoyalGarden", "Aglonema", "Keladi", "Alocasia", "M

    for (int i = 0; i < bunga.length; i++) {
        System.out.printf(format:"%-15s", "RoyalGarden" + (i + 1));    Replace this use of System.out by a logger.

        for (int j = 0; j < bunga[i].length; j++) {
            if (i == 3 && j == 0) {
                bunga[i][j] -= 1; // Pengurangan stok hanya pada Royal Garden 4 untuk Aglonema
            } else if (i == 3 && j == 1) {
                bunga[i][j] -= 2; // Pengurangan stok hanya pada Royal Garden 4 untuk Keladi
            } else if (i == 3 && j == 3) {
                bunga[i][j] -= 5; // Pengurangan stok hanya pada Royal Garden 4 untuk Mawar
            }
            System.out.printf(format:"%-15d ", bunga[i][j]);    Replace this use of System.out by a logger.
        }
        System.out.println();    Replace this use of System.out by a logger.
```

Hasil run kode program :

```
 ============================================================
|       Informasi Pendapatan dan Stok Bunga Royal Garden     |
 ============================================================
RoyalGarden     Aglonema        Keladi          Alocasia        Mawar
RoyalGarden1    750000          250000          900000          70000
RoyalGarden2    450000          550000          540000          120000
RoyalGarden3    150000          500000          600000          50000
RoyalGarden4    375000          350000          720000          90000
 ==========================================
|      Informasi Stok Bunga Royal Garden     |
 ==========================================
RoyalGarden     Aglonema        Keladi          Alocasia        Mawar
RoyalGarden1    10              5               15              7
RoyalGarden2    6               11              9               12
RoyalGarden3    2               10              10              5
RoyalGarden4    5               7               12              9
 ====================================================================
|      Informasi Pengurangan Stok Bunga dan Stok Akhir Royal Garden      |
 ====================================================================
RoyalGarden     Aglonema        Keladi          Alocasia        Mawar
RoyalGarden1    10              5               15              7
RoyalGarden2    6               11              9               12
RoyalGarden3    2               10              10              5
RoyalGarden4    4               5               12              4
PS D:\kuliah\smt 2\alsd\praktikum-alsd-1>
```

5. TUGAS 1

Kode program :

```java
import java.util.Scanner;    Move this file to a named package.

public class Tugas123 {
    Run | Debug
    public static void main(String[] args) {
        Scanner sc23 = new Scanner(System.in);    Resource leak: 'sc23' is never closed
        char kode[] = {'A','B','D','E','F','G','H','L','N','T'};    Move the array designators [] to the type.
        char kota[][] = {    Move the array designators [][] to the type.
            {'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'}
        };
        System.out.println(x:" ============================================");    Replace this use of System.out by a logger.
        System.out.println(x:"|      Program Mencari Plat Nomor Kendaraan   |");    Replace this use of System.out by a logger.
        System.out.println(x:" ============================================");    Replace this use of System.out by a logger.
        System.out.print(s:"Masukkan Kode Plat Nomor: ");    Replace this use of System.out by a logger.
        char cari = sc23.next().charAt(index:0);
        boolean found = false;

        for(int i = 0; i < kode.length; i++) {
            if (kode[i] == cari) {
                System.out.println("Kota dari kode plat nomor " + cari + " adalah: ");    Replace this use of System.out by a logger.
                for (int j = 0; j < kota[i].length; j++) {
                    System.out.print(kota[i][j]);    Replace this use of System.out by a logger.
                }
                found = true;
                break;
            }
        }
```

```
        if (!found) {
            System.out.println(x:"Kode plat nomor tidak ditemukan.");    Re
        }
    }
}
```

Hasil run kode program :

```
688239c9a123e563de53f8bf6\redhat.java\jdt_ws\praktikum
 ============================================
|      Program Mencari Plat Nomor Kendaraan  |
 ============================================
Masukkan Kode Plat Nomor: L
Kota dari kode plat nomor L adalah:
SURABAYA
PS D:\kuliah\smt 2\alsd\praktikum-alsd-1>
```

```
 ============================================
|      Program Mencari Plat Nomor Kendaraan  |
 ============================================
Masukkan Kode Plat Nomor: S
Kode plat nomor tidak ditemukan.
PS D:\kuliah\smt 2\alsd\praktikum-alsd-1>
```

6. TUGAS 2

Kode program :

```java
import java.util.Scanner;    Move this file to a named package.
public class Tugas223 {

    Run | Debug
    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);    Resource leak: 'sc' is never closed

        while (true) {
            System.out.println(x:"Pilih perhitungan yang ingin dilakukan:");    Replace this use of System.out by a l
            System.out.println(x:"1. Volume Kubus");    Replace this use of System.out by a logger.
            System.out.println(x:"2. Luas Permukaan Kubus");    Replace this use of System.out by a logger.
            System.out.println(x:"3. Keliling Kubus");    Replace this use of System.out by a logger.
            System.out.println(x:"4. Keluar");    Replace this use of System.out by a logger.

            System.out.print(s:"Masukkan pilihan : ");    Replace this use of System.out by a logger.
            int pilihan = sc.nextInt();

            if (pilihan == 4) {
                System.out.println(x:"Program selesai.");    Replace this use of System.out by a logger.
                break;
            }

            System.out.print(s:"Masukkan panjang rusuk kubus: ");    Replace this use of System.out by a logger.
            double rusuk = sc.nextDouble();



            switch (pilihan) {
                case 1:
                    System.out.println("Volume Kubus: " + hitungVolume(rusuk));    Replace this use of System.out by
                    break;
                case 2:
                    System.out.println("Luas Permukaan Kubus: " + hitungLuasPermukaan(rusuk));    Replace this use of
                    break;
                    case 3:
                        System.out.println("Keliling Kubus: " + hitungKeliling(rusuk));    Replace this use of
                        break;
                    default:
                        System.out.println(x:"Pilihan tidak valid");    Replace this use of System.out by a lo
                }
                System.out.println();    Replace this use of System.out by a logger.
            }
    }

    public static double hitungVolume(double rusuk) {
        return rusuk * rusuk * rusuk;
    }

    public static double hitungLuasPermukaan(double rusuk) {
        return 6 * rusuk * rusuk;
    }

    public static double hitungKeliling(double rusuk) {
        return 12 * rusuk;
    }
}
```

Hasil run kode program :

```
deDetailsInExceptionMessages' '-cp' 'C:\Users\USER\AppData\Roaming\Code\User\workspaceStorage\5d6
688239c9a123e563de53f8bf6\redhat.java\jdt_ws\praktikum-alsd-1_fa7eb693\bin' 'Tugas223'
Pilih perhitungan yang ingin dilakukan:
1. Volume Kubus
2. Luas Permukaan Kubus
3. Keliling Kubus
4. Keluar
Masukkan pilihan : 1
Masukkan panjang rusuk kubus: 6
Volume Kubus: 216.0

Pilih perhitungan yang ingin dilakukan:
1. Volume Kubus
2. Luas Permukaan Kubus
3. Keliling Kubus
4. Keluar
Masukkan pilihan : 2
Masukkan panjang rusuk kubus: 6
Luas Permukaan Kubus: 216.0

Pilih perhitungan yang ingin dilakukan:
1. Volume Kubus
2. Luas Permukaan Kubus
3. Keliling Kubus
4. Keluar
Masukkan pilihan : 3
Masukkan panjang rusuk kubus: 6
Keliling Kubus: 72.0

Pilih perhitungan yang ingin dilakukan:
1. Volume Kubus
2. Luas Permukaan Kubus
3. Keliling Kubus
4. Keluar
Masukkan pilihan : 4
Program selesai.
PS D:\kuliah\smt 2\alsd\praktikum-alsd-1>
```

7. TUGAS 3

Kode program :

```java
import java.util.Scanner;    Move this file to a named package.
public class Tugas323 {
    Run | Debug
    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);    Resource leak: 'sc' is never closed

        System.out.println(x:"================================");    Define a constant instead of duplicating this literal "=====
        System.out.print(s:"Masukkan jumlah mata kuliah: ");    Replace this use of System.out by a logger.
        int n = sc.nextInt();
        System.out.println(x:"--------------------------------");    Replace this use of System.out by a logger.

        String[] namaMk = new String[n];
        int[] sks = new int[n];
        int[] semester = new int[n];
        String[] hari = new String[n];

        for (int i = 0; i < n; i++) {
            System.out.print(s:"Masukkan nama mata kuliah: ");    Replace this use of System.out by a logger.
            namaMk[i] = sc.next();
            System.out.print(s:"Masukkan SKS: ");    Replace this use of System.out by a logger.
            sks[i] = sc.nextInt();
            System.out.print(s:"Masukkan semester: ");    Replace this use of System.out by a logger.
            semester[i] = sc.nextInt();
            System.out.print(s:"Masukkan hari kuliah: ");    Replace this use of System.out by a logger.
            hari[i] = sc.next();
            System.out.println(x:"--------------------------------");    Replace this use of System.out by a logger.
        }

        while (true) {
            System.out.println(x:"Jadwal kuliah: ");    Replace this use of System.out by a logger.
            System.out.println(x:"1. Menampilkan seluruh jadwal kuliah");    Replace this use of System.out by a logger.
            System.out.println(x:"2. Menampilkan jadwal kuliah berdasarkan hari");    Replace this use of System.out by a logger.
            System.out.println(x:"3. Menampilkan jadwal kuliah berdasarkan semester");    Replace this use of System.out by a log
            System.out.println(x:"4. Mencari mata kuliah");    Replace this use of System.out by a logger.
            System.out.println(x:"5. Keluar");    Replace this use of System.out by a logger.
            System.out.print(s:"Pilih: ");    Replace this use of System.out by a logger.
```

```
            System.out.print(s:"Pilih: ");    Replace this use of System.out by a logger.
            int pilihan = sc.nextInt();

            switch (pilihan) {    Add a default case to this switch.
                case 1:
                    tampilkanJadwal(namaMk, sks, semester, hari);
                    break;
                case 2:
                    System.out.print(s:"Masukkan hari: ");    Replace this use of System.out by a logger.
                    String hariCari = sc.next();
                    tampilkanJadwalHari(namaMk, sks, semester, hari, hariCari);
                    break;
                case 3:
                    System.out.print(s:"Masukkan semester: ");    Replace this use of System.out by a logger.
                    int semesterCari = sc.nextInt();
                    tampilkanJadwalSemester(namaMk, sks, semester, hari, semesterCari);
                    break;
                case 4:
                    System.out.print(s:"Masukkan nama mata kuliah: ");    Replace this use of System.out by a logger.
                    String namaCari = sc.next();
                    cariMataKuliah(namaMk, sks, semester, hari, namaCari);
                    break;
                case 5:
                    System.out.println(x:"Program selesai.");    Replace this use of System.out by a logger.
                    return;
            }
        }
    }

    public static void tampilkanJadwal(String[] namaMk, int[] sks, int[] semester, String[] hari) {
        System.out.println(x:"==============================");    Replace this use of System.out by a logger.
        for (int i = 0; i < namaMk.length; i++) {
            System.out.println("Mata kuliah: " + namaMk[i] + ", SKS: " + sks[i] + ", Semester: " + semester[i] + ", Hari: " + hari[i]);
        }
```

```
    public static void tampilkanJadwal(String[] namaMk, int[] sks, int[] semester, String[] hari) {
        System.out.println(x:"==============================");    Replace this use of System.out by a logger.
        for (int i = 0; i < namaMk.length; i++) {
            System.out.println("Mata kuliah: " + namaMk[i] + ", SKS: " + sks[i] + ", Semester: " + semester[i] + ", Hari: " + hari[i]);    Def
        }
        System.out.println(x:"==============================");    Replace this use of System.out by a logger.
    }

    public static void tampilkanJadwalHari(String[] namaMk, int[] sks, int[] semester, String[] hari, String hariCari) {
        System.out.println(x:"==============================");    Replace this use of System.out by a logger.
        boolean ditemukan = false;
        for (int i = 0; i < namaMk.length; i++) {
            if (hari[i].equals(hariCari)) {
                System.out.println("Mata kuliah: " + namaMk[i] + ", SKS: " + sks[i] + ", Semester: " + semester[i] + ", Hari: " + hari[i]);
                ditemukan = true;
            }
        }
        if (!ditemukan) {
            System.out.println(x:"Mata kuliah tidak ditemukan");    Define a constant instead of duplicating this literal "Mata kuliah tidak d
        }
        System.out.println(x:"==============================");    Replace this use of System.out by a logger.
    }

    public static void tampilkanJadwalSemester(String[] namaMk, int[] sks, int[] semester, String[] hari, int semesterCari) {
        System.out.println(x:"==============================");    Replace this use of System.out by a logger.
        boolean ditemukan = false;
        for (int i = 0; i < namaMk.length; i++) {
            if (semester[i] == semesterCari) {
                System.out.println("Mata kuliah: " + namaMk[i] + ", SKS: " + sks[i] + ", Semester: " + semester[i] + ", Hari: " + hari[i]);
                ditemukan = true;
            }
        }
        if (!ditemukan) {
            System.out.println(x:"Mata kuliah tidak ditemukan");    Replace this use of System.out by a logger.
        }
```

```
        if (!ditemukan) {
            System.out.println(x:"Mata kuliah tidak ditemukan");    Replace this use of System.out by a logger.
        }
        System.out.println(x:"==============================");    Replace this use of System.out by a logger.
    }

    public static void cariMataKuliah(String[] namaMk, int[] sks, int[] semester, String[] hari, String namaCari) {
        System.out.println(x:"==============================");    Replace this use of System.out by a logger.
        boolean ditemukan = false;
        for (int i = 0; i < namaMk.length; i++) {
            if (namaMk[i].equals(namaCari)) {
                System.out.println("Mata kuliah: " + namaMk[i] + ", SKS: " + sks[i] + ", Semester: " + semester[i] + ", Hari: " + hari[i]);
                ditemukan = true;
            }
        }
        if (!ditemukan) {
            System.out.println(x:"Mata kuliah tidak ditemukan");    Replace this use of System.out by a logger.
        }
        System.out.println(x:"==============================");    Replace this use of System.out by a logger.
    }
}
```

Hasil run kode program :

```
PS D:\kuliah\smt 2\alsd\praktikum-alsd-1>  & 'C:\Program Files\Java\jdk-22\bin\java.exe' '-XX:+
deDetailsInExceptionMessages' '-cp' 'C:\Users\USER\AppData\Roaming\Code\User\workspaceStorage\5
688239c9a123e563de53f8bf6\redhat.java\jdt_ws\praktikum-alsd-1_fa7eb693\bin' 'Tugas323'
================================
Masukkan jumlah mata kuliah: 5
--------------------------------
Masukkan nama mata kuliah: daspro
Masukkan SKS: 2
Masukkan semester: 1
Masukkan hari kuliah: senin
--------------------------------
Masukkan nama mata kuliah: kti
Masukkan SKS: 2
Masukkan semester: 1
Masukkan hari kuliah: selasa
--------------------------------
Masukkan nama mata kuliah: matdas
Masukkan SKS: 2
Masukkan semester: 1
Masukkan hari kuliah: rabu
--------------------------------
Masukkan nama mata kuliah: k3
Masukkan SKS: 2
Masukkan semester: 1
Masukkan hari kuliah: kamis
--------------------------------
Masukkan nama mata kuliah: rpl
Masukkan SKS: 2
Masukkan semester: 1
Masukkan hari kuliah: jumat
--------------------------------
Jadwal kuliah:
1. Menampilkan seluruh jadwal kuliah
2. Menampilkan jadwal kuliah berdasarkan hari
3. Menampilkan jadwal kuliah berdasarkan semester
4. Mencari mata kuliah
5. Keluar
```

```
Pilih: 1
==============================
Mata kuliah: daspro, SKS: 2, Semester: 1, Hari: senin
Mata kuliah: kti, SKS: 2, Semester: 1, Hari: selasa
Mata kuliah: matdas, SKS: 2, Semester: 1, Hari: rabu
Mata kuliah: k3, SKS: 2, Semester: 1, Hari: kamis
Mata kuliah: rpl, SKS: 2, Semester: 1, Hari: jumat
==============================
Jadwal kuliah:
1. Menampilkan seluruh jadwal kuliah
2. Menampilkan jadwal kuliah berdasarkan hari
3. Menampilkan jadwal kuliah berdasarkan semester
4. Mencari mata kuliah
5. Keluar
Pilih: 2
Masukkan hari: kamis
==============================
Mata kuliah: k3, SKS: 2, Semester: 1, Hari: kamis
==============================
Jadwal kuliah:
1. Menampilkan seluruh jadwal kuliah
2. Menampilkan jadwal kuliah berdasarkan hari
3. Menampilkan jadwal kuliah berdasarkan semester
4. Mencari mata kuliah
5. Keluar
Pilih: 3
Masukkan semester: 1
==============================
Mata kuliah: daspro, SKS: 2, Semester: 1, Hari: senin
Mata kuliah: kti, SKS: 2, Semester: 1, Hari: selasa
Mata kuliah: matdas, SKS: 2, Semester: 1, Hari: rabu
Mata kuliah: k3, SKS: 2, Semester: 1, Hari: kamis
Mata kuliah: rpl, SKS: 2, Semester: 1, Hari: jumat
==============================
Jadwal kuliah:
1. Menampilkan seluruh jadwal kuliah
2. Menampilkan jadwal kuliah berdasarkan hari
3. Menampilkan jadwal kuliah berdasarkan semester
4. Mencari mata kuliah
5. Keluar
Pilih: 5
==============================
Jadwal kuliah:
1. Menampilkan seluruh jadwal kuliah
2. Menampilkan jadwal kuliah berdasarkan hari
3. Menampilkan jadwal kuliah berdasarkan semester
4. Mencari mata kuliah
5. Keluar
Pilih: 5
Program selesai.
PS D:\kuliah\smt 2\alsd\praktikum-alsd-1>
```