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LAPORAN JOBSHEET 1

1. Pemilihan

➤ Kode program

```
package Jobsheet1;
```

```
import java.util.Scanner;
```

```
public class Pemilihan {
```

```
    public static void main(String[] args) {
```

```
        Scanner sc = new Scanner(System.in);
```

```
        System.out.println("Program Menghitung Nilai Akhir");
```

```
        System.out.println("=====");
```

```
        int tugas, kuis, uts, uas;
```

```
        System.out.print("Masukkan Nilai Tugas\t: ");
```

```
        tugas = sc.nextInt();
```

```
        System.out.print("Masukkan Nilai Kuis\t: ");
```

```
        kuis = sc.nextInt();
```

```
        System.out.print("Masukkan Nilai UTS\t: ");
```

```
        uts = sc.nextInt();
```

```
        System.out.print("Masukkan Nilai UAS\t: ");
```

```
        uas = sc.nextInt();
```

```
        System.out.println("=====");
```

```
        System.out.println("=====");
```

```
        if (tugas < 0 || tugas > 100 || kuis < 0 || kuis > 100 || uts < 0 || uts > 100 || uas < 0 ||  
        uas > 100) {
```

```
            System.out.println("NILAI TIDAK VALID");
```

```
            System.out.println("=====");
```

```
            System.out.println("=====");
```

```
            return;
```

```
        }
```

```

double nilaiAkhir;
String huruf = "";
String status;

nilaiAkhir = (tugas * 0.2) + (kuis * 0.2) + (uts * 0.3) + (uas * 0.3);

if (nilaiAkhir > 80 && nilaiAkhir <= 100) {
    huruf = "A";
} else if (nilaiAkhir > 73 && nilaiAkhir <= 80) {
    huruf = "B+";
} else if (nilaiAkhir > 65 && nilaiAkhir <= 73) {
    huruf = "B";
} else if (nilaiAkhir > 60 && nilaiAkhir <= 65) {
    huruf = "C+";
} else if (nilaiAkhir > 50 && nilaiAkhir <= 60) {
    huruf = "C";
} else if (nilaiAkhir > 39 && nilaiAkhir <= 50) {
    huruf = "D";
} else if (nilaiAkhir >= 0 && nilaiAkhir <= 39) {
    huruf = "E";
}

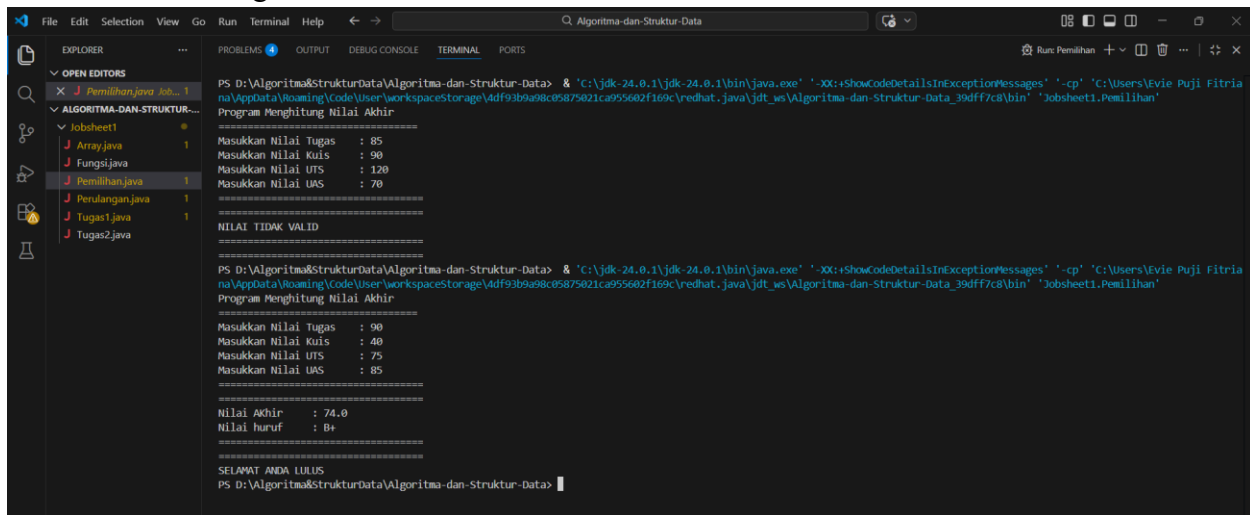
System.out.println("Nilai AKhir\t: " + nilaiAkhir);
System.out.println("Nilai huruf\t: " + huruf);

if (nilaiAkhir >= 51) {
    status = "SELAMAT ANDA LULUS";
} else {
    status = "SEMANGAT, ANDA TIDAK LULUS";
}

System.out.println("=====");
System.out.println("=====");
System.out.println(status);
}
}

```

➤ Hasil Running



```
PS D:\Algoritma&StrukturData\Algoritma-dan-Struktur-Data> & 'c:\jdk-24.0.1\jdk-24.0.1\bin\java.exe' '-XX:+ShowCodeDetailsInExceptionMessages' '-cp' 'c:\Users\Evie Puji Fitria\na\AppData\Roaming\Code\User\workspaceStorage\4df93b9a98c05875021ca955602f169c\redhat.java\jdt_ws\Algoritma-dan-Struktur-Data_39dff7c8\bin' 'Jobsheet1.Pemilihan'
Program Menghitung Nilai Akhir
=====
Masukkan Nilai Tugas      : 85
Masukkan Nilai Kuis        : 90
Masukkan Nilai UTS         : 120
Masukkan Nilai UAS         : 70
=====
NILAI TIDAK VALID
=====

PS D:\Algoritma&StrukturData\Algoritma-dan-Struktur-Data> & 'c:\jdk-24.0.1\jdk-24.0.1\bin\java.exe' '-XX:+ShowCodeDetailsInExceptionMessages' '-cp' 'c:\Users\Evie Puji Fitria\na\AppData\Roaming\Code\User\workspaceStorage\4df93b9a98c05875021ca955602f169c\redhat.java\jdt_ws\Algoritma-dan-Struktur-Data_39dff7c8\bin' 'Jobsheet1.Pemilihan'
Program Menghitung Nilai Akhir
=====
Masukkan Nilai Tugas      : 90
Masukkan Nilai Kuis        : 40
Masukkan Nilai UTS         : 75
Masukkan Nilai UAS         : 85
=====
Nilai Akhir      : 74.0
Nilai huruf      : B+
=====
SELAMAT ANDA LULUS
PS D:\Algoritma&StrukturData\Algoritma-dan-Struktur-Data>
```

2. Perulangan

➤ Kode Program

package Jobsheet1;

import java.util.Scanner;

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

```
        String nim;
        int n;
```

```
        System.out.print("Masukkan NIM: ");
        nim = sc.nextLine();
```

```
        // ambil 2 digit terakhir nim
        n = Integer.parseInt(nim.substring(nim.length() - 2));
```

```
        if (n < 10) {
            n += 10;
        }
```

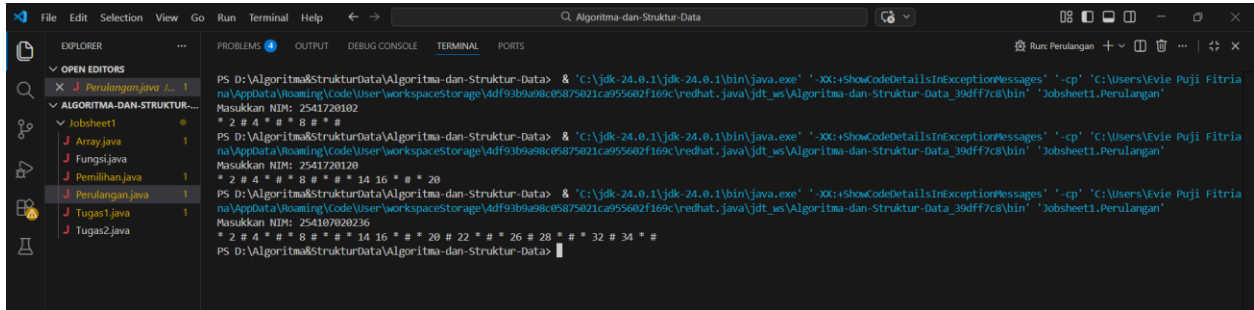
```
        for (int i = 1; i <= n; i++) {
            if (i == 10 || i == 15) {
                continue;
```

```

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

```

➤ Hasil Running



3. Array

➤ Kode Program

```
package Jobsheet1;
```

```
import java.util.Scanner;
```

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

```
System.out.println("=====");
System.out.println("Program Menghitung IP Semester");
System.out.println("=====");
```

```
System.out.print("Masukkan jumlah mata kuliah: ");
int jumlahMK = sc.nextInt();
sc.nextLine();
```

```
String[] mk = new String[jumlahMK];
```

```

int[] sks = new int[jumlahMK];
double[] nilaiAngka = new double[jumlahMK];
String[] nilaiHuruf = new String[jumlahMK];
double[] nilaiSetara = new double[jumlahMK];

double totalBobotSKS = 0;
double totalSKS = 0;

for (int i = 0; i < jumlahMK; i++) {
    System.out.println("\nMata Kuliah ke-" + (i + 1));
    System.out.print("Nama MK\t\t: ");
    mk[i] = sc.nextLine();

    System.out.print("SKS\t\t: ");
    sks[i] = sc.nextInt();

    System.out.print("Nilai Angka\t: ");
    nilaiAngka[i] = sc.nextDouble();
    sc.nextLine();

    if (nilaiAngka[i] > 80 && nilaiAngka[i] <= 100) {
        nilaiHuruf[i] = "A";
        nilaiSetara[i] = 4.0;
    } else if (nilaiAngka[i] > 73 && nilaiAngka[i] <= 80) {
        nilaiHuruf[i] = "B+";
        nilaiSetara[i] = 3.5;
    } else if (nilaiAngka[i] > 65 && nilaiAngka[i] <= 73) {
        nilaiHuruf[i] = "B";
        nilaiSetara[i] = 3.0;
    } else if (nilaiAngka[i] > 60 && nilaiAngka[i] <= 65) {
        nilaiHuruf[i] = "C+";
        nilaiSetara[i] = 2.5;
    } else if (nilaiAngka[i] > 50 && nilaiAngka[i] <= 60) {
        nilaiHuruf[i] = "C";
        nilaiSetara[i] = 2.0;
    } else if (nilaiAngka[i] > 39 && nilaiAngka[i] <= 50) {
        nilaiHuruf[i] = "D";
        nilaiSetara[i] = 1.0;
    } else if (nilaiAngka[i] >= 0 && nilaiAngka[i] <= 39) {
        nilaiHuruf[i] = "E";
    }
}

```

```

        nilaiSetara[i] = 0.0;
    }

    totalBobotSKS += nilaiSetara[i] * sks[i];
    totalSKS += sks[i];
}

System.out.println("=====");
System.out.println("Hasil Konversi Nilai");
System.out.println("=====");
System.out.printf("%-40s %-12s %-12s %-12s\n", "MK", "Nilai Angka", "Nilai Huruf", "Bobot Nilai");

for (int i = 0; i < mk.length; i++) {
    System.out.printf("%-40s %-12.2f %-12s %-12.2f\n", mk[i], nilaiAngka[i], nilaiHuruf[i], nilaiSetara[i]);
}

double ip = totalBobotSKS / totalSKS;
System.out.println("=====");
System.out.printf("IP Semester : %.2f\n", ip);
}
}

```

➤ Hasil Running

```

PS D:\AlgoritmaStrukturData\Algoritma-dan-Struktur-Data> & 'C:\jdk-24.0.1\jdk-24.0.1\bin\java.exe' '-XX:ShowCodeDetailsInExceptionMessages' '-cp' 'C:\Users\Evie Puji Fitria\AppData\Local\Code\User\workspacestorage\ddf93b9a98c05875021ca959602f169c\redhat_java\jdt_ws\Algoritma-dan-Struktur-Data_39dff7c8\bin' 'Jobsheet1.Array'

=====
Program Menghitung IP Semester
Masukkan jumlah mata kuliah: 3

Mata Kuliah ke-1
Nama MK      : Matematika
SKS          : 2
Nilai Angka  : 90

Mata Kuliah ke-2
Nama MK      : Fisika
SKS          : 2
Nilai Angka  : 85

Mata Kuliah ke-3
Nama MK      : Dasar Pemrograman
SKS          : 3
Nilai Angka  : 60

=====
Hasil Konversi Nilai
=====
MK                               Nilai Angka  Nilai Huruf  Bobot Nilai
Matematika                       90,00        A             4,00
Fisika                           85,00        A             4,00
Dasar Pemrograman                60,00        C             2,00
=====
IP Semester : 3,14
PS D:\AlgoritmaStrukturData\Algoritma-dan-Struktur-Data>

```

4. Fungsi

➤ Kode Program

```
package Jobsheet1;
```

```
public class Fungsi {
```

```
    static int hitungPendapatan(int aglonema, int keladi, int alocasia, int mawar) {
```

```
        int hargaAglonema = 75000;
```

```
        int hargaKeladi = 50000;
```

```
        int hargaAlocasia = 60000;
```

```
        int hargaMawar = 10000;
```

```
        return (aglonema * hargaAglonema) +
```

```
            (keladi * hargaKeladi) +
```

```
            (alocasia * hargaAlocasia) +
```

```
            (mawar * hargaMawar);
```

```
    }
```

```
// Fungsi menentukan status cabang
```

```
static String statusCabang(int pendapatan) {
```

```
    if (pendapatan > 1500000) {
```

```
        return "Sangat Baik";
```

```
    } else {
```

```
        return "Perlu Evaluasi";
```

```
    }
```

```
}
```

```
public static void main(String[] args) {
```

```
    int[][] stok = {
```

```
        { 10, 5, 15, 7 },
```

```
        { 6, 11, 9, 12 },
```

```
        { 2, 10, 10, 5 },
```

```
        { 5, 7, 12, 9 }  
    };
```

```
    for (int i = 0; i < stok.length; i++) {
```

```
        int pendapatan = hitungPendapatan(  
            stok[i][0],  
            stok[i][1],  
            stok[i][2],
```

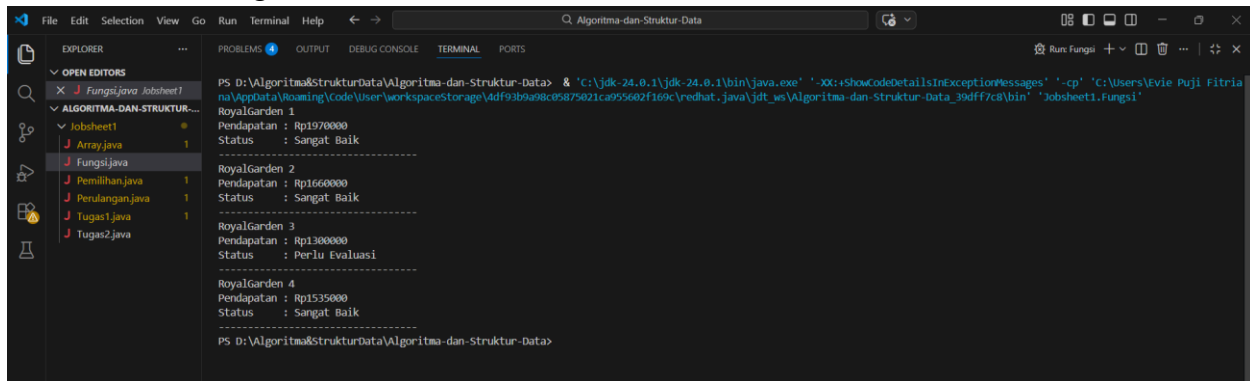
```

        stok[i][3]);

        System.out.println("RoyalGarden " + (i + 1));
        System.out.println("Pendapatan : Rp" + pendapatan);
        System.out.println("Status    : " + statusCabang(pendapatan));
        System.out.println("-----");
    }
}
}
}

```

➤ Hasil Running



5. Tugas 1

➤ Kode Program

```

package Jobsheet1;

import java.util.Scanner;

public class Tugas1 {
    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);

        char[] kode = { 'A', 'B', 'D', 'E', 'F', 'G', 'H', 'L', 'N', 'T' };

        char[][] kota = {
            { '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.print("Masukkan kode plat nomor: ");
    char input = sc.next().toUpperCase().charAt(0);

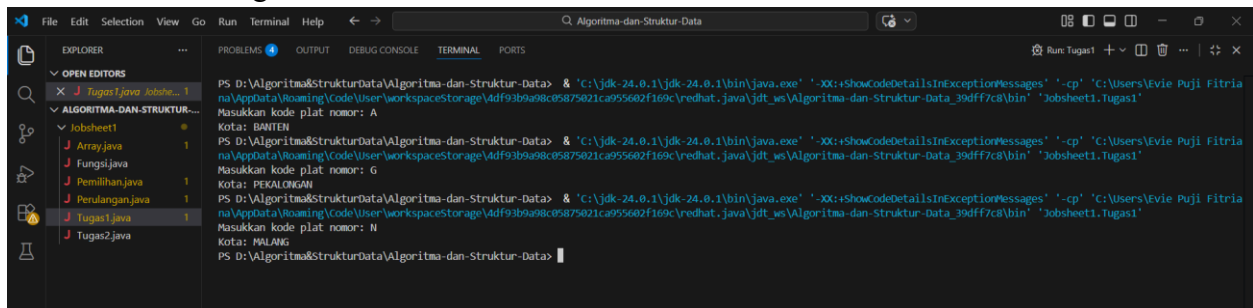
    boolean ditemukan = false;

    for (int i = 0; i < kode.length; i++) {
        if (input == kode[i]) {
            System.out.print("Kota: ");
            for (int j = 0; j < kota[i].length; j++) {
                System.out.print(kota[i][j]);
            }
            System.out.println();
            ditemukan = true;
            break;
        }
    }

    if (!ditemukan) {
        System.out.println("Kode plat tidak ditemukan");
    }
}

```

➤ Hasil Running



```

PS D:\Algoritma&StrukturData\Algoritma-dan-Struktur-Data> & 'C:\jdk-24.0.1\jdk-24.0.1\bin\java.exe' '-XX:+ShowCodeDetailsInExceptionMessages' '-cp' 'C:\Users\Evie Puji Fitria\na\AppData\Roaming\Code\User\workspaceStorage\4df93b9a98c05875021ca955602f169c\redhat.java\jdt_ws\Algoritma-dan-Struktur-Data_39dff7c8\bin' 'Jobsheet1.Tugas1'
Masukkan kode plat nomor: A
Kota: BANTEN
PS D:\Algoritma&StrukturData\Algoritma-dan-Struktur-Data> & 'C:\jdk-24.0.1\jdk-24.0.1\bin\java.exe' '-XX:+ShowCodeDetailsInExceptionMessages' '-cp' 'C:\Users\Evie Puji Fitria\na\AppData\Roaming\Code\User\workspaceStorage\4df93b9a98c05875021ca955602f169c\redhat.java\jdt_ws\Algoritma-dan-Struktur-Data_39dff7c8\bin' 'Jobsheet1.Tugas1'
Masukkan kode plat nomor: G
Kota: PEKALONGAN
PS D:\Algoritma&StrukturData\Algoritma-dan-Struktur-Data> & 'C:\jdk-24.0.1\jdk-24.0.1\bin\java.exe' '-XX:+ShowCodeDetailsInExceptionMessages' '-cp' 'C:\Users\Evie Puji Fitria\na\AppData\Roaming\Code\User\workspaceStorage\4df93b9a98c05875021ca955602f169c\redhat.java\jdt_ws\Algoritma-dan-Struktur-Data_39dff7c8\bin' 'Jobsheet1.Tugas1'
Masukkan kode plat nomor: N
Kota: MALANG
PS D:\Algoritma&StrukturData\Algoritma-dan-Struktur-Data>

```

6. Tugas 2

➤ Kode Program

```
package Jobsheet1;

import java.util.Scanner;

public class Tugas2 {
    static void inputJadwal(String[][] jadwal, int n, Scanner sc) {
        for (int i = 0; i < n; i++) {
            System.out.println("\nJadwal ke-" + (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 tampilSemuaJadwal(String[][] jadwal) {
        System.out.println("\n=====
        =");
        System.out.println("DAFTAR JADWAL KULIAH");
        System.out.println("=====");
        System.out.printf("%-25s %-10s %-10s %-10s\n",
            "Mata Kuliah", "Ruang", "Hari", "Jam");

        for (int i = 0; i < jadwal.length; i++) {
            System.out.printf("%-25s %-10s %-10s %-10s\n",
                jadwal[i][0], jadwal[i][1], jadwal[i][2], jadwal[i][3]);
        }
    }

    static void tampilByHari(String[][] jadwal, String hari) {
```

```

boolean ditemukan = false;
System.out.println("\nJadwal Hari " + hari);

for (int i = 0; i < jadwal.length; i++) {
    if (jadwal[i][2].equalsIgnoreCase(hari)) {
        System.out.println(jadwal[i][0] + " | " +
            jadwal[i][1] + " | " +
            jadwal[i][3]);
        ditemukan = true;
    }
}

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

static void tampilByMK(String[][] jadwal, String mk) {
    boolean ditemukan = false;

    for (int i = 0; i < jadwal.length; i++) {
        if (jadwal[i][0].equalsIgnoreCase(mk)) {
            System.out.println("\nDetail Jadwal:");
            System.out.println("Mata Kuliah : " + jadwal[i][0]);
            System.out.println("Ruang      : " + jadwal[i][1]);
            System.out.println("Hari      : " + jadwal[i][2]);
            System.out.println("Jam      : " + jadwal[i][3]);
            ditemukan = true;
        }
    }

    if (!ditemukan) {
        System.out.println("Mata kuliah tidak ditemukan");
    }
}

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();

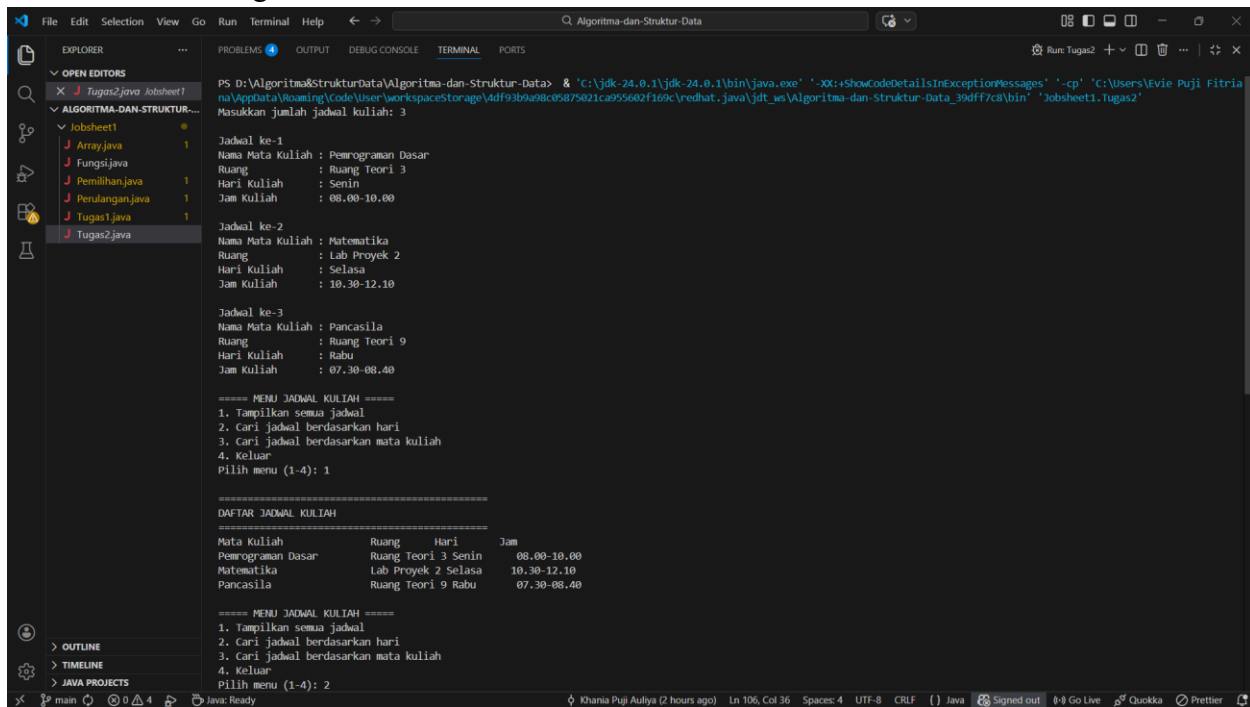
String[][] jadwal = new String[n][4];
inputJadwal(jadwal, n, sc);

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

    switch (pilihan) {
        case 1:
            tampilSemuaJadwal(jadwal);
            break;
        case 2:
            System.out.print("\nMasukkan hari: ");
            String hari = sc.nextLine();
            tampilByHari(jadwal, hari);
            break;
        case 3:
            System.out.print("\nMasukkan nama mata kuliah: ");
            String mk = sc.nextLine();
            tampilByMK(jadwal, mk);
            break;
        case 4:
            System.out.println("\nTerima kasih, program selesai.");
            break;
        default:
            System.out.println("\nPilihan tidak valid!");
    }
} while (pilihan != 4);
}
}

```

➤ Hasil Running



```
PS D:\Algoritma&StrukturData\Algoritma-dan-Struktur-Data> & 'C:\jdk-24.0.1\jdk-24.0.1\bin\java.exe' '-XX:+ShowCodeDetailsInExceptionMessages' '-cp' 'C:\Users\Evie Puji Fitria\na\AppData\Local\Temp\Code\User\workspaceStorage\4df93b9a28c05875021ca955602f169c\redhat.java\jdt_ws\Algoritma-dan-Struktur-Data_39dff7c8\bin' 'Jobsheet1.Tugas2'
Masukkan jumlah jadwal kuliah: 3

Jadwal ke-1
Nama Mata Kuliah : Pemrograman Dasar
Ruamg          : Ruang Teori 3
Hari Kuliah    : Senin
Jam Kuliah     : 08.00-10.00

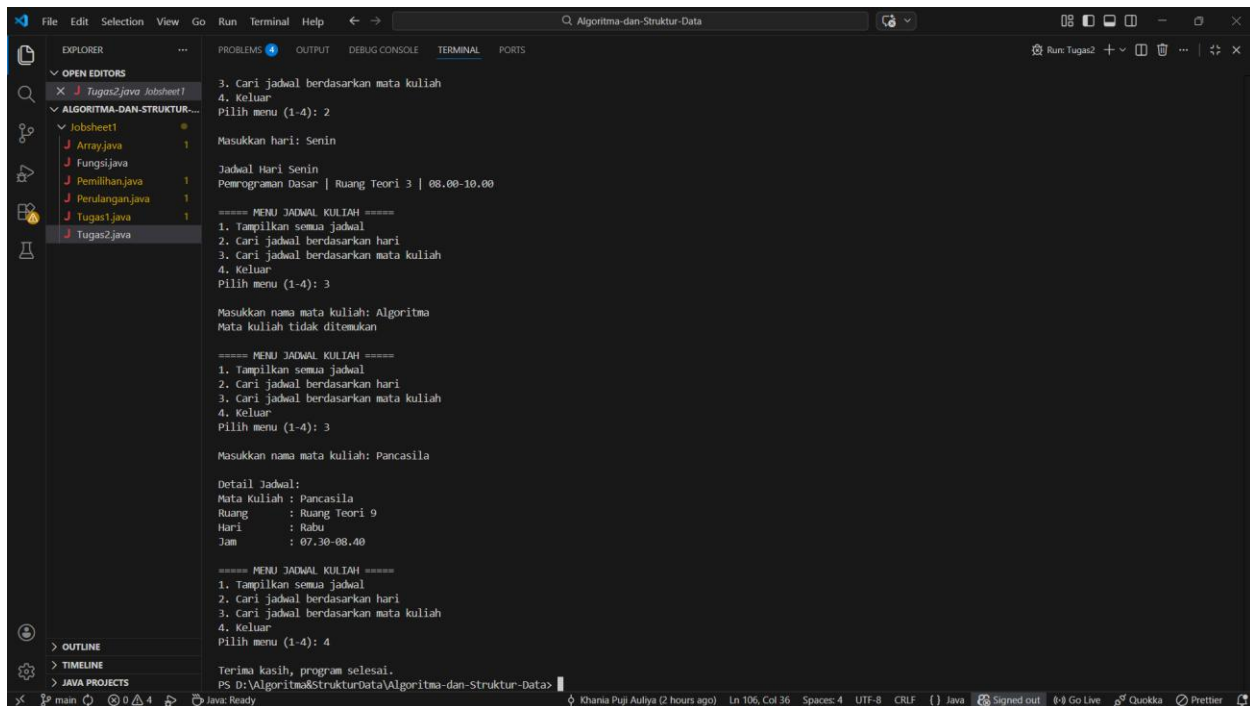
Jadwal ke-2
Nama Mata Kuliah : Matematika
Ruamg          : Lab Proyek 2
Hari Kuliah    : Selasa
Jam Kuliah     : 10.30-12.10

Jadwal ke-3
Nama Mata Kuliah : Pancasila
Ruamg          : Ruang Teori 9
Hari Kuliah    : Rabu
Jam Kuliah     : 07.30-08.40

===== MENU JADWAL KULIAH =====
1. Tampilkan semua jadwal
2. Cari jadwal berdasarkan hari
3. Cari jadwal berdasarkan mata kuliah
4. Keluar
Pilih menu (1-4): 1

=====
DAFTAR JADWAL KULIAH
=====
Mata Kuliah      Ruang      Hari      Jam
Pemrograman Dasar Ruang Teori 3 Senin    08.00-10.00
Matematika       Lab Proyek 2 Selasa   10.30-12.10
Pancasila        Ruang Teori 9 Rabu     07.30-08.40

===== MENU JADWAL KULIAH =====
1. Tampilkan semua jadwal
2. Cari jadwal berdasarkan hari
3. Cari jadwal berdasarkan mata kuliah
4. Keluar
Pilih menu (1-4): 2
```



```
3. Cari jadwal berdasarkan mata kuliah
4. Keluar
Pilih menu (1-4): 2

Masukkan hari: Senin

Jadwal Hari Senin
Pemrograman Dasar | Ruang Teori 3 | 08.00-10.00

===== MENU JADWAL KULIAH =====
1. Tampilkan semua jadwal
2. Cari jadwal berdasarkan hari
3. Cari jadwal berdasarkan mata kuliah
4. Keluar
Pilih menu (1-4): 3

Masukkan nama mata kuliah: Algoritma
Mata kuliah tidak ditemukan

===== MENU JADWAL KULIAH =====
1. Tampilkan semua jadwal
2. Cari jadwal berdasarkan hari
3. Cari jadwal berdasarkan mata kuliah
4. Keluar
Pilih menu (1-4): 3

Masukkan nama mata kuliah: Pancasila

Detail Jadwal:
Mata Kuliah : Pancasila
Ruamg       : Ruang Teori 9
Hari        : Rabu
Jam         : 07.30-08.40

===== MENU JADWAL KULIAH =====
1. Tampilkan semua jadwal
2. Cari jadwal berdasarkan hari
3. Cari jadwal berdasarkan mata kuliah
4. Keluar
Pilih menu (1-4): 4

Terima kasih, program selesai.
PS D:\Algoritma&StrukturData\Algoritma-dan-Struktur-Data>
```