Nama : Rayhan Giri Putra
No : 14
Kelas : SIB - 1E

Percobaan 1

Source code:

```java
PemilihanBilangan14.java > PemilihanBilangan14 > main(String[])
You, 32 seconds ago | 1 author (You)
import java.util.Scanner;
You, 32 seconds ago | 1 author (You)
public class PemilihanBilangan14 {
    Tabnine: Edit | Test | Explain | Document | Ask | Run | Debug
    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);      You, 16 minutes ago • test

        System.out.print(s:"Masukkan sebuah angka: ");
        int angka = sc.nextInt();

        if (angka % 2 == 0)
        {
            System.out.println("angka " + angka + " termasuk bilangan genap");
        }
        else
        {
            System.out.println("angka " + angka + " termasuk bilangan ganjil");
        }
        sc.close();
    }
}
```

Result:

```
Masukkan sebuah angka: 8
angka 8 termasuk bilangan genap
```

Soal:

1. ubahlah menjadi ternary operator

```java
PemilihanBilangan14.java > PemilihanBilangan14 > main(String[])
You, 12 minutes ago | 1 author (You)
import java.util.Scanner;
You, 12 minutes ago | 1 author (You)
public class PemilihanBilangan14 {
    Tabnine: Edit | Test | Explain | Document | Ask | Run | Debug
    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);

        System.out.print(s:"Masukkan sebuah angka: ");
        int number = sc.nextInt();

        String hasil = (number % 2 == 0) ? " angka adalah genap" : " angka adalah ganjil";
        System.out.println("angka " + number + hasil);
        sc.close();       You, 28 minutes ago • test
    }
}
```

2. https://github.com/Rayhannn18/jobsheet-2.0.git

Percobaan kedua:

Source code

PemilihanSwitch14.java > PemilihanSwitch14 > main(String[])

```java
import java.util.Scanner;
public class PemilihanSwitch14 {
    Run | Debug | Tabnine: Edit | Test | Explain | Document | Ask
    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);

        double angka1, angka2, hasil = 0;
        char operator;

        System.out.println(x:"Masukkan angka 1: ");
        angka1 = sc.nextDouble();
        System.out.println(x:"Masukkan angka 2: ");
        angka2 = sc.nextDouble();
        System.out.println(x:"Masukkan operator (+ - * :)");
        operator = sc.next().charAt(index:0);

        switch (operator) {
            case '+':
                hasil = angka1 + angka2;
                break;

            case '-':
                hasil = angka1 - angka2;
                break;

            case '*':
                hasil = angka1 * angka2;
                break;

            case '/':
                hasil = angka1 / angka2;
                break;
        }

        System.out.println(angka1 + " " + operator + " " + angka2 + " = " + hasil);
        sc.close();
    }
```

Result:

```
Masukkan angka 1:
45
Masukkan angka 2:
80
Masukkan operator (+ - * :)
+
45.0 + 80.0 = 125.0
```

Soal

1. .mana yang benar diantara link 37 dan 34 ? yang benar adalah 34 karena pada java + int juga akan menambah value dan menjumlahkan semua

2. Jadi, keseluruhan perintah ini mengambil input kata dari pengguna, kemudian menyimpan karakter pertamanya ke dalam variabel operator
3. Tetap bisa berjalan karena default like as else in if

4.

```java
public class PemilihanSwitch14 {
    public static void main(String[] args) {

        System.out.println(x:"Masukkan angka 1: ");
        angka1 = sc.nextDouble();
        System.out.println(x:"Masukkan angka 2: ");
        angka2 = sc.nextDouble();
        System.out.println(x:"Masukkan operator (+ - * :)");
        operator = sc.next().charAt(index:0);

        switch (operator) {
            case '+':
                hasil = angka1 + angka2;
                break;

            case '-':
                hasil = angka1 - angka2;
                break;

            case '*':
                hasil = angka1 * angka2;
                break;

            case '/':
                hasil = angka1 / angka2;
                break;

            default:
                System.out.println(x:"Masukkan Operator yang benar !");

        }
        if (operator == '+' || operator == '-' || operator == '*' || operator == '/');
            System.out.println(angka1 + operator + angka2 + " = " + hasil);
            System.out.println(angka1 + " " + operator + " " + angka2 + " " + hasil);      You, 1 second ago • Uncommitted


    }
```

```java
    }
    if (operator == '+' || operator == '-' || operator == '*' || operator == '/');
        System.out.println(angka1 + operator + angka2 + " = " + hasil);
        System.out.println(angka1 + " " + operator + " " + angka2 + " " + hasil);      You, 5 minutes ago • Uncommitted
```

5. default berfungsi untuk menghandle jika tidak ada case yang sesuai
6. https://github.com/Rayhannn18/jobsheet-2.0/tree/14
7.

```java
PemilihanSwitch00.java > PemilihanSwitch14 > main(String[])
import java.util.Scanner;

public class PemilihanSwitch14 {
    Run | Debug | Tabnine: Edit | Test | Explain | Document | Ask
    public static void main(String[] args) {
        Scanner input = new Scanner(System.in);
        double number1, number2, result = 0;
        char operator;

        System.out.print(s:"Masukkan angka 1 : ");
        number1 = input.nextDouble();
        System.out.print(s:"Masukkan angka 2 : ");
        number2 = input.nextDouble();
        System.out.print(s:"Masukkan operator (+ - * :) : ");
        operator = input.next().charAt(index:0);

        if (operator == '+') {
            result = number1 + number2;
        } else if (operator == '-') {
            result = number1 - number2;
        } else if (operator == '*') {
            result = number1 * number2;
        } else if (operator == '/') {
            result = number1 / number2;
        } else {
            System.out.println(x:"Operator yang anda masukan salah");
        }
        input.close();

        if (operator == '-' || operator == '*' || operator == '/' || operator == '+') {
            System.out.println(number1 + operator + number2 + " = " + result);
            System.out.println(number1 + " " + operator + " " + number2 + " = " + result);
        }

    }
}
```

8. https://github.com/Rayhannn18/jobsheet-2.0.git

Percobaan ketiga

PemilihanHari14.java > PemilihanHari14 > main(String[])

```java
import java.util.Scanner;
public class PemilihanHari14 {
    Run | Debug | Tabnine: Edit | Test | Explain | Document | Ask
    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);

        String DayName, DayType;
        System.out.print(s:"Input day name: ");
        DayName = sc.nextLine();

        switch (DayName.toLowerCase()) {
            case "monday":
            case "tuesday":
            case "wednesday":
            case "thursday":
            case "friday":
                DayType = "weekday";
                break;
            case "saturday":
            case "sunday":
                DayType = "weekend";
                break;
            default:
                DayType = "Invalid day name";

        }
        System.out.println(DayName + "\tis a\t" + DayType);
    }
}
```

Soal:

1. Perintah break digunakan untuk keluar dari statement switch jika bertemu dengan kondisi case yang sesuai. Statement break bisa juga digunakan untuk keluar dari perulangan.
2. Percobaan 2 → `case '+':`

   Percobaan 3 → `case "monday":`

   pada percobaan 2 case digunakan untuk char atau karakter
   pada percobaan 3 case digunakan untuk menyaman String
3. pada case ini fungsi tersebut berguna untuk mengubah string menjadi bentuk lowercase, ketika tidak ada hal itu mungkin akan mempengaruhi jika salah input besar kecil suatu tulisan.

4.

```java
PemilihanHariDenganIf14.java > PemilihanHariDenganIf14
You, 1 minute ago | 1 author (You)
import java.util.Scanner;

You, 1 minute ago | 1 author (You)
public class PemilihanHariDenganIf14 {

    Run | Debug
    public static void main (String[] args) {
        Scanner input = new Scanner(System.in);
        String DayType;
        byte DayNumber;
        System.out.println(x:"Masukkan angka 1 hingga 7");
        System.out.println(x:"Masukkan : ");
        DayNumber = input.nextByte();
        input.close();
        DayType = "";
        if (DayNumber >= 1 && DayNumber <= 5) {
            DayType = "Hari produktif";
        } else if (DayNumber == 6 || DayNumber ==7) {
            DayType = "Hari libur";
        } else {
            DayType = "Angka yang salah";
        }
        System.out.println(DayNumber + " adalah " + DayType);
    }
}       You, 2 seconds ago • ini
```

5. https://github.com/Rayhannn18/jobsheet-2.0.git

TUGAS

A. Source Code A

SiakadRayhan14.java > SiakadRayhan14

```java
import java.util.Scanner;

public class SiakadRayhan14 {
    Run | Debug
    public static void main(String[] args) {
        Scanner input = new Scanner(System.in);


        String name, nim;
        char classes;
        byte absentNumber;
        double QuizGrade, TaskGrade, ExampGrade, LastGrade;


        System.out.println(x:"======== INPUT BIODATA MAHASISWA SIB-1E ======== \n");
        System.out.print(s:"Masukkan Nama anda \t\t: ");
        name = input.nextLine();
        System.out.print(s:"Masukkan NIM anda \t\t: ");
        nim = input.nextLine();
        System.out.print(s:"Masukkan Kelas anda \t\t: ");
        classes = input.nextLine().charAt(index:0);
        System.out.print(s:"Masukkan Nomor Absen anda \t: ");
        absentNumber = input.nextByte();


        System.out.println(x:"========== INPUT NILAI MAHASISWA SIB-1E ======== \n");
        System.out.print(s:"Masukkan Nilai Kuis \t: ");
        QuizGrade = input.nextDouble();
        System.out.print(s:"Masukkan Nilai Tugas \t: ");
        TaskGrade = input.nextDouble();
        System.out.print(s:"Masukkan Nilai Ujian \t: ");
        ExampGrade = input.nextDouble();
        input.close();


        System.out.println(x:"========== HASIL ========== \n");

        LastGrade = (QuizGrade + TaskGrade + ExampGrade) / 3;
        char Grade;
        String Kualification;


        if (LastGrade > 80 && LastGrade <= 100) {
            Grade = 'A';
            Kualification = "Sangat Baik";
        } else if (LastGrade > 73 && LastGrade <= 80) {
            Grade = 'B';
            Kualification = "Lebih Dari Baik";
        } else if (LastGrade > 65 && LastGrade <= 73) {
            Grade = 'B';
            Kualification = "Baik";
        } else if (LastGrade > 60 && LastGrade <= 65) {
            Grade = 'C';
            Kualification = "Lebih Dari Cukup";
        } else if (LastGrade > 50 && LastGrade <= 60) {
            Grade = 'C';
            Kualification = "Cukup";
        } else if (LastGrade > 39 && LastGrade <= 50) {
            Grade = 'D';
            Kualification = "Kurang";
        } else {
            Grade = 'E';
            Kualification = "Gagal";
        }


        System.out.print("Mahasiswa dengan nama \t : " + name + " NIM : " + nim);
        System.out.println(" Kelas : " + "1" + classes + " Absen : " + absentNumber);
        System.out.println("Nilai Akhir \t\t : " + LastGrade);
        System.out.println("Nilai Akhir Huruf \t : " + Grade);
        System.out.println("Kualifikasi Akhir \t : " + Kualification);
    }
```

Result

```
========== INPUT NILAI MAHASISWA SIB-1E ========

Masukkan Nilai Kuis     : 98
Masukkan Nilai Tugas    : 99
Masukkan Nilai Ujian    : 95
========== HASIL ==========

Mahasiswa dengan nama    : RAYHAN NIM : 244107060122 Kelas : 11 Absen : 14
Nilai Akhir              : 97.33333333333333
Nilai Akhir Huruf        : A
Kualifikasi Akhir        : Sangat Baik
PS D:\jobsheet 2.0>
```

Source Code B

KafeRayhan14.java > KafeRayhan14

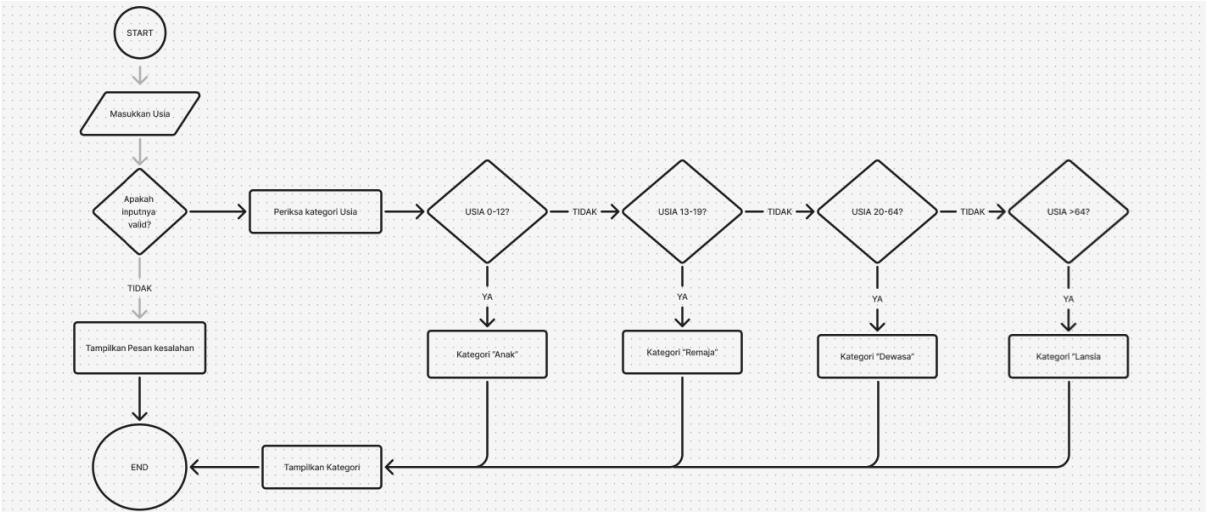
```java
import java.util.Scanner;

public class KafeRayhan14 {
    Run | Debug
    public static void main(String[] args) {
        Scanner input = new Scanner(System.in);
        char membership;
        int CoffeQuantity, TeaQuantitiy, BreadQuantity;
        double CoffePrice = 12000.0, TeaPrice = 7000.0, BreadPrice = 20000.0;
        double discount = 0.1;
        double count, TotalPayment;


        System.out.print(s:" Status Membership (Y/N) : ");
        membership = input.next().charAt(index:0);


        System.out.print(s:"masukkan jumlah pembelian kopi : ");
        CoffeQuantity = input.nextInt();


        System.out.print(s:"masukkan jumlah pembelian teh : ");
        TeaQuantitiy = input.nextInt();


        System.out.print(s:"masukkan jumlah pembelian roti : ");
        BreadQuantity = input.nextInt();


        count = (CoffeQuantity * CoffePrice) + (TeaQuantitiy * TeaPrice) + (BreadQuantity * BreadPrice);
        TotalPayment = 0;
        if (membership == 'Y' || membership == 'y') {
            TotalPayment = count - (discount * count);
        } else {
            TotalPayment = count;
        }

        input.close();


        int nominalInt = (int) TotalPayment;
        double discountPrice = count - (count - (count * discount));


        System.out.println(x:"\n======== STRUK PEMBELIAN ======== \n");


        System.out.println("keanggotaan pelanggan     : " + membership);
        System.out.println(
                String.format(format:"Item Pembelian %s Kopi %s Teh %s Roti", CoffeQuantity, TeaQuantitiy, BreadQuantity));
        System.out.println("nominal bayar Rp  : " + nominalInt);
        if (membership == 'Y' || membership == 'y') {
            System.out.println("Anda mendapatkan Potongan Harga  Rp : " + (int) discountPrice);
        }
    }
}
```

Result tugas B

```
 Status Membership (Y/N) : y
masukkan jumlah pembelian kopi : 13
masukkan jumlah pembelian teh : 8
masukkan jumlah pembelian roti : 13

======== STRUK PEMBELIAN ========

keanggotaan pelanggan     : y
Item Pembelian 13 Kopi 8 Teh 13 Roti
nominal bayar Rp  : 424800
Anda mendapatkan Potongan Harga  Rp : 47200
```

```
 Status Membership (Y/N) : n
masukkan jumlah pembelian kopi : 10
masukkan jumlah pembelian teh : 6
masukkan jumlah pembelian roti : 11

======== STRUK PEMBELIAN ========

keanggotaan pelanggan     : n
Item Pembelian 10 Kopi 6 Teh 11 Roti
nominal bayar Rp  : 382000
```

C.



D.https://github.com/Rayhannn18/jobsheet-2.0/blob/5dc7b1d7f35051ba42b1d018f87cef3a9de842ce/Diagram%20Tanpa%20Judul.drawio