Basic Programming Practicum
Jobsheet 5 Selection 2

Name
Dicha Zelianivan Arkana

NIM
2241720002

Class
1i

Department
Information Technology

Study Program
D4 Informatics Engineering

Contents

1 Laboratory

1.1 Experiment 1

1. Open a text editor. Create a new file, name it **Nested1.java**
2. Write the basic structure of the Java programming language which contains the `main()` function
3. Add the `Scanner` library.
4. Make a `Scanner` declaration with the name sc
5. Create an `int` variable with the name `value`
6. Write down the syntax for entering the value from keyboard

```
System.out.print("Enter a value (0 - 100): ");
value = sc.nextInt();
```

7. Create a nested selection structure. The first check is used to ensure that the value entered is in the range 0 - 100. If the value is in the range 0 - 100, then a student graduation status will be checked, i.e. if the value is between 90 - 100 then the value is A, if the value is between 80 - 89 then the value is B, if the value is between 60 - 79 then the value is C, if the value is between 50 - 59 then the value is D, and if the value is between 0 - 49 then the value is E. Whereas if the value is outside the range 0 - 100 , then displayed information stating that the value entered is invalid.

```
if (value >= 0 && value <= 100) {
    if (value >= 90 && value <= 100) {
        System.out.println("Grade A, EXCELLENT!");
    } else if (value >= 80 && value <= 89) {
        System.out.println("Grade B, keep up your achievements!");
    } else if (value >= 60 && value <= 79) {
        System.out.println("Grade C, increase your achievements!");
    } else if (value >= 50 && value <= 59) {
        System.out.println("Grade D, improve your study!");
    } else {
        System.out.println("Grade E, you don't pass!");
    }
} else {
    System.out.println("The value you entered is invalid");
}
```

8. Compile and run the program. Observe the results!