ADNAN MENDERES UNIVERSITY
CSE 203 Object-Oriented Programming

Lab 01

- Download / Install Eclipse.
- You should submit **ONLY solutions of homework**. Submit one project file in zipped format and named project file as ***studentNo_NameSurname_AssignmentX***. X is the number of Lab, for this lab: Assignment1.
- Late submissions are not allowed.
- You should do homework **YOURSELF**. Group working is not allowed.
- Copy homework will be evaluated as 0.
- **DO NOT upload a screenshot or something else.**
- Use Google Classroom for your questions. Do not send private messages.

LAB EXAMPLES:

1- Let's begin with a simple Java program that displays the message Welcome to Java! on the console.

```
1  public class Welcome {
2    public static void main(String[] args) {
3      // Display message Welcome to Java! on the console
4      System.out.println("Welcome to Java!");
5    }
6  }
```

2- Write a java program that takes a digit (between 0 and 9) (*n*) from the user and then prints the following shape by using nested for loops.

Sample Output:

Input: n=6

Output:

```
111
 222
  333
   444
    555
     666
```

Input: n=4

Output:

```
  111
   222
    333
     444
```

3- Write a java program to play a ***game***. The program should generate a random number between 1 and 99. The player inputs his/her guess and the program should give a response as:

- "please enter a higher number",

- "please enter a lower number" or

- "you guessed the number after *n* attempts".

Note: Use "*while loop"*

Example:

```
Inputs      Outputs
50
            Please enter a higher number
70
            Please enter a higher number
92
            Please enter a lower number
85
            You guessed the number after 4 attempts.
```

HOMEWORK

1- Write a java program that takes *the age of the employee* and *the amount of salary* from the user and then calculates the ***tax***.

There are four age categories, and each category has different tax cases:

Category	**Tax**
For people aged 18 to 35	16% of first $17,000 plus 25% of excess
For people aged 36 to 50	16% of first $23,000 plus 25% of excess
For people aged 51 to 74	16% of first $29,000 plus 25% of excess
For people aged 75 to 95	16% of first $14,000 plus 25% of excess

For example, a person aged 26 with an income of $28,000 dollars owes 0.16 x $17,000 + 0.25 x ($28,000–$17,000).

Sample Output:

```
Enter age of employee
26
Enter salary of employee
28000
Tax is: 5470.0
```