Université d'Ottawa
Faculté de génie

École de science informatique
et de génie électrique

uOttawa

L'Université canadienne
Canada's university

University of Ottawa
Faculty of Engineering

School of Electrical Engineering
and Computer Science

Course: CEG3185
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Professor: Melike Erol-Kantarci
Room: STE 5029
Phone: (613)562-5800 × 6693
Email: melike.erolkantarci@uottawa.ca

Lab 3

Week of May 29, 2017
(Posted: May 29, 2017)

(This lab assignment was originally created by Kazi of University of Ottawa, Canada)

This lab is a short introduction to JAVA. There are students from different disciplines and many of them are not familiar with JAVA programming language which will be mostly used for the upcoming labs. Hence this short lab has been introduced.

The tasks are following.

Sample Tasks:

1) Create the following pattern and display on the screen.

```
1
22
333
4444
55555
666666
7777777
88888888
999999999
```

Sample Code:

```
for (int i = 1; i <= j; i++) {
      for (int k = 1; k <= i; k++) {
```

```
                System.out.print(i);
            }
            System.out.println();
        }
```

2) Create the following pattern and display on the screen.

```
1111111111111111111
2222222222222222222
3333333333333333333
4444444444444444444
5555555555555555555
6666666666666666666
7777777777777777777
8888888888888888888
9999999999999999999
```

Sample Code:

```
        for (int i = 1; i <= j; i++) {
            for (int k = 1; k <= (j * 2 + 1); k++) {
                System.out.print(i);
            }
            System.out.println();
        }
```

Lab Tasks:

- Create a file in “c:\\lab3.txt”
- Create the following patterns one by one.
- Append each pattern to the file “c:\\lab3.txt”
- Read the file “c:\\lab3.txt” and print it to the screen.

1) Create the following pattern.

```
1111111111111111111
2........2........2
3........3........3
4........4........4
5........5........5
6........6........6
7........7........7
8........8........8
9999999999999999999
```

2) Create the following pattern.

```
1111111111111111111
2........2........2
3........3........3
4........4........4
5555555555555555555
6........6........6
7........7........7
8........8........8
9999999999999999999
```

3) Create the following pattern.

```
1111111111111111111
1..x..x..1..x..x..1
1..x..x..1..x..x..1
1..x..x..1..x..x..1
1111111111111111111
1..x..x..1..x..x..1
1..x..x..1..x..x..1
1..x..x..1..x..x..1
1111111111111111111
```

4) Create the following pattern.

```
.........1.........
........222........
.......33333.......
......4444444......
.....555555555.....
....66666666666....
...7777777777777...
..888888888888888..
.99999999999999999.
```

Code Template is Given: **Template.java**