

CSCI-2467 Lab 4 – Loops

Assignment

Write a program to print a multiplication table. First ask the user for the size of the table. Then print a multiplication table (with a range of 1 to the specified size). For instance, if the user specified a size of 4, the program would print:

```
1 * 1 = 1  1 * 2 = 2  1 * 3 = 3  1 * 4 = 4
2 * 1 = 2  2 * 2 = 4  2 * 3 = 6  2 * 4 = 8
3 * 1 = 3  3 * 2 = 6  3 * 3 = 9  3 * 4 = 12
4 * 1 = 4  4 * 2 = 8  4 * 3 = 12  4 * 4 = 16
```

Each arithmetic equation should be followed by *two* spaces. To implement the program, you will need to use a loop within a loop (nested loops). You may use either two *for* or two *while* loops.

Use the following code as a starting point for your assignment:

```
import java.util.Scanner;

// TODO Add student name, date, purpose of program
public class Main {
    public static void main(String[] args) {
        Scanner input = new Scanner(System.in);
        // TODO add your code here
    }
}
```

As always include a comment with your name, the date, and the purpose of the program.

Example Output

Enter size of multiplication table: 3

```
1 * 1 = 1  1 * 2 = 2  1 * 3 = 3
2 * 1 = 2  2 * 2 = 4  2 * 3 = 6
3 * 1 = 3  3 * 2 = 6  3 * 3 = 9
```

Process finished with exit code 0

More Example Output

Enter size of multiplication table: 6

```
1 * 1 = 1  1 * 2 = 2  1 * 3 = 3  1 * 4 = 4  1 * 5 = 5  1 * 6 = 6
2 * 1 = 2  2 * 2 = 4  2 * 3 = 6  2 * 4 = 8  2 * 5 = 10  2 * 6 = 12
3 * 1 = 3  3 * 2 = 6  3 * 3 = 9  3 * 4 = 12  3 * 5 = 15  3 * 6 = 18
4 * 1 = 4  4 * 2 = 8  4 * 3 = 12  4 * 4 = 16  4 * 5 = 20  4 * 6 = 24
5 * 1 = 5  5 * 2 = 10  5 * 3 = 15  5 * 4 = 20  5 * 5 = 25  5 * 6 = 30
6 * 1 = 6  6 * 2 = 12  6 * 3 = 18  6 * 4 = 24  6 * 5 = 30  6 * 6 = 36
```

Process finished with exit code 0