

## In Lab Exercise- Java Programming (3<sup>rd</sup> Semester)

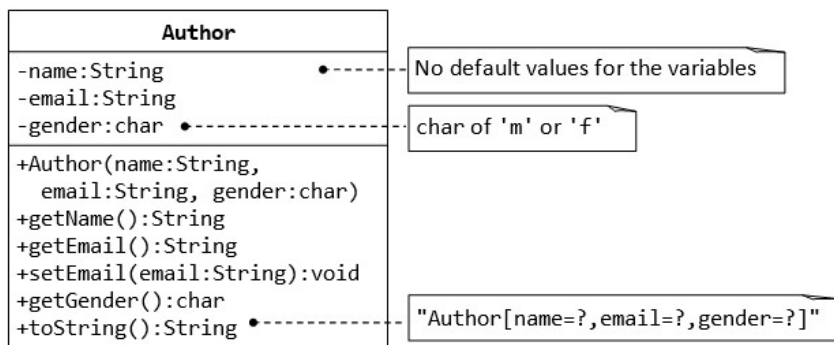
### Exercise-1 (4-point)

Time: 45 minute

Implement a Java-main-method that prints out the multiplication table for all numbers from **1 to 10**. Use the tabulator character '\t' to align the values. The output of your method should be as follows:

1	2	3	4	5	6	7	8	9	10
2	4	6	8	10	12	14	16	18	20
3	6	9	12	15	18	21	24	27	30
4	8	12	16	20	24	28	32	36	40
5	10	15	20	25	30	35	40	45	50
6	12	18	24	30	36	42	48	54	60
7	14	21	28	35	42	49	56	63	70
8	16	24	32	40	48	56	64	72	80
9	18	27	36	45	54	63	72	81	90
10	20	30	40	50	60	70	80	90	100

### Exercise-2 (4-point)



A class called **Author** (as shown in the class diagram) is designed to model a book's author. It contains:

- Three private instance variables: name (String), email (String), and gender (char of either 'm' or 'f');
- One constructor to initialize the name, email and gender with the given values;  
(There is no default constructor for Author, as there are no defaults for name, email and gender.)
- public getters/setters: `getName()`, `getEmail()`, `setEmail()`, and `getGender()`;  
(There are no setters for name and gender, as these attributes cannot be changed.)
- A `toString()` method that returns `"Author[name=?,email=?,gender=?]"`, e.g., `"Author[name=Tan Ah Teck,email=ahTeck@somewhere.com,gender=m]"`.

### Exercise-3 (2-point)

A number of bytes given as a int value should be printed out with at most three digits before the decimal comma. The output for four different values:

123 Byte are 123.0 Byte  
15323 Byte are 15.323 KByte  
15323000 Byte are 15.323 MByte  
1532300001 Byte are 1.532300001 GByte

Do not use iterations (only if-else).

```
class Converter{
    public static void main(String[] args) {
        // call method and print value here
    }
    public static String getSize(long size) {
        String s = "";
        double kb = size / 1024;
        double mb = kb / 1024;
        double gb = kb / 1024;
        double tb = kb / 1024;
        // implement if-else to return proper value
        return s; }}

```