

**Objectives:**

- Write and compile simple Java programs that uses calculations, input data from the keyboard. The softcopy of the lab sheet has clickable hyperlinks.

**Exercise 1 (Time: 10 minutes)**

- a) Declare two integer variables, `miles` and `yards`, and one double variable for `kilometers`
- b) Initialize the variables to hold the number of `miles` and `yards` in a marathon respectively (`miles` to 26 and `yards` to 385).
- c) Write an expression to calculate `kilometers` from `miles` and `yards`.
- d) Save the result of the expression in the variable `kilometers`.

Note: *One mile is 1.609 kilometers. There are 1760.0 yards in a mile*

**Exercise 2 (Time: 5 minutes)**

Write a Java program that take Student's First Name, Student ID and District he/she comes from as command line arguments and display the user inputs.

e.g.

```
z:\>java Exercise2 Anoja IT14129011 Kalutara
```

**Output :**

```
DitNo : IT14129011
```

```
Name : Anoja
```

```
District : Kalutara
```

Note : *The variable array (`args`) in the main function captures the command line arguments given in the program. i.e. `args` in `public static void main(String args[])`*

**Exercise 3 (Time: 5 minutes)**

Write a program to calculate the volume of a cube when `length`, `width` and `height` are given as keyboard inputs.

Note: You can use ***Scanner*** class in the ***java.util*** package.

**Exercise 4 (Time: 10 minutes)**

There are two other ways you can input data in Java. Retry Exercise 3 using another technique to input data from the Keyboard.

Note: You can use *System.in*, *InputStreamReader* class and *BufferedReader* class. *InputStreamReader* and *BufferedReader* classes are in *java.io* package. (Note Existing Java Classes are in Capitals). Please have a look at <https://goo.gl/93wQmg>

**Exercise 5 (Time: 15 minutes)**

- Create a class called `EvenOddNumber`.
- It has a method called `findEvenOrOdd(int i)` to find whether a number is even or odd.
- This method takes an integer argument and returns a [boolean \(hyperlink\)](#) value. (Note : There is a data type called ***boolean*** in java which can store *true/false* values)
- Then create another class `Demo` with the main method and create an object from `EvenOddNumber` class.
- Through the object creates call the `findEvenOrOdd()` method and display outputs indicating whether those are even numbers or odd numbers.

Note: Use ***Scanner*** class in the ***java.util*** package and [ternary operator](#) (hyperlink) for checking. Also have a look at how you can create two classes in one program and create objects using this sample <https://goo.gl/MjBSV7>

**Exercise 6** – Have a look at the Assignment and start working on it individually