

## Practice Exercise #08: Vaccination

[http://www.comp.nus.edu.sg/~cs1020/4\\_misc/practice.html](http://www.comp.nus.edu.sg/~cs1020/4_misc/practice.html)

Reference: Week 2 OOP Part 1

### Objectives:

1. Using **Scanner** class: **nextLine()**, **nextInt()**, **nextBoolean()**
2. Knowing the difference between **next()** and **nextLine()**
3. Using escape sequences in **println()** statement
4. Handling the newline character

### Task statement:

In this exercise, you are to write a Java program **Vaccination.java** to do the following:

- Read the number of children, a positive integer.
- For each child, read the child's name, age, and whether the child is vaccinated for chickenpox.
- All input data read are to be echoed (see sample run below).
- Report the average age of the children to 2 decimal places.
- Report the percentage of children who are vaccinated for chickenpox, in 2 decimal places.

### Exploration:

- What happens if you use **next()** instead of **nextLine()** for the children's names?
- After you enter the number of children or the truth value of the child's vaccination status, you would need to press the Enter key to end your input. This adds the newline character ('\n') into the input buffer, which will be picked up by the next **nextLine()** call, and hence your program will not be able to read the child's name. To find out how to solve this issue, read the following website:

<http://stackoverflow.com/questions/7056749/scanner-issue-when-using-nextline-after-nextxxx>

**Sample run:**

```
Number of children: 3
Number of children is 3
Name: Peter Wong
Name is "Peter Wong"
Age: 6
Age is 6
Vaccinated for chickenpox? True
Vaccinated for chickenpox
Name: Ali Ahmad
Name is "Ali Ahmad"
Age: 3
Age is 3
Vaccinated for chickenpox? faLSe
Not vaccinated for chickenpox
Name: Soh Yue Ling
Name is "Soh Yue Ling"
Age: 7
Age is 7
Vaccinated for chickenpox? TRUE
Vaccinated for chickenpox
Average age is 5.33
Percentage of children vaccinated is 66.67%
```