# Java Language Fundamentals

## Overview

In this lab, you’ll create a new project and define a class that makes use of fundamental Java language features.

## Source modules

Student module: StudentJavaLang (you will create this module)

Solution module: SolutionJavaLang

## Roadmap

There are 3 exercises in this lab, of which the last exercise is "if time permits". Here is a brief summary of the tasks you will perform in each exercise; more detailed instructions follow later:

1. Creating a module and adding a main class
2. Declaring and using variables
3. Additional suggestions

## Exercise 1: Creating a module and adding a main class

In IntelliJ IDEA, create a new Java module named StudentJavaLang.

In the StudentJavaLang module, create a new package named student.javalang (this is the naming convention we use for packages on this course).

In the student.javalang package, create a new Java class named Main (it doesn’t actually matter what you call the class, but Main is as good as any ☺). In the Main class, write a simple main() method to act as the entry-point for your application.

Run the application as it stands, to make sure everything is OK so far.

## Exercise 2: Declaring and using variables

In the main() method, add code to do the following:

* Ask the user to enter an employee’s name, plus their salary (use the Scanner class to help you get the user’s input).
* Output the details by using System.out.println().

Run the application to verify it all works. Then add more code as follows:

* Ask the user to enter the name and employee for another employee.
* Output these details.
* Also output the average salary.

**Exercise 3 (If time permits): Additional suggestions**

* Use the Math class to determine the minimum and maximum salaries.
* Use the StringBuilder class to accumulate some useful information efficiently, and then display it. You can find information about StringBuilder in the online JavaDoc documentation.