

# Expeditors Backend Academy Labs

## Introduction

This document contains the labs for the Expeditors Backend Academy.

The instructions are split up into **Classwork** and **Homework**. The Classwork we will do in class together. You should do the Homework in the **Homework** module. Create a new package for each week's homework if it makes sense. I will go through an example before we start.

## Week 1

### Classwork

1. Introductions.
2. Import the github workspace into your IDE. We will do this together in class.
3. Write a simple "Hello World" program to make sure that everything works.
4. Become familiar with basic Java.
5. Intro to JUnit.

### Homework

#### Objectives

1. Become familiar with basic Java things like variable types, loops etc.
2. Start using JUnit

#### Tasks

1. Write a program to create and print out the values of variables to hold the following data. The point here is to think about the **types** of variables needed to hold particular types of data.
  - a. A vehicle identification number in the range 0 to 1000000
  - b. A vehicle make /model (i.e. Ford Explorer)
  - c. a vehicle color
  - d. whether the vehicle has a towing package
  - e. an odometer reading
  - f. a price
  - g. a quality rating (A, B, or C)

2. Write a program that goes in a loop from -500 to +500 and prints out all numbers that are divisible by either 3 or 7. Do this with a for loop and a while loop.
3. Change your program to print out a **count** of the numbers between -500 to +500 that are divisible by either 3 or 7.
4. Once you have the count, rewrite your program as a JUnit test and assert that it returns the correct count.