Algorithms & Data Structures: Lab 01

week of 1st October 2018

1 Setup

1.1 Installing and configuring software

In this series of labs, you will be asked to write programmes with specified behaviours. You will be provided with test cases which probe whether you have correctly implemented your programmes.

1.1.1 Programming language

In order to compile your programmes, you will need to install a compiler and runtime. Which compiler will depend on your choice of programming language for Principles and Applications of Programming: for Games Programming students, this will be C++; for most Computer Science students, this will be Java. You must tell me about your choice by visiting the learn.gold page for this module and selecting your programming language.

1.1.2 Development environment

You will need to install a development environment. How you do this depends on your operating system and programming language. Follow instructions on learn.gold to identify what you need to do, and the respective installation procedures for the software you need to get started.

1.2 Getting the lab distribution

You will also need to get the lab code, which is distributed from a git repository hosted on the Department's gitlab instance. You should be able to issue the following command from a terminal:

```
git clone http://gitlab.doc.gold.ac.uk/crhodes/is52038b-labs.git
```

and the lab bundle code will be downloaded to the `is52038b-labs` directory relative to your current directory.

1.3 Testing your installation

Once you have performed all the previous steps, you should have a directory containing the lab bundle. This directory will be under version control – more on that in a couple of weeks – and you should try to keep track of your changes to it.

For now, what you should do is test whether your installation and configuration of software has worked. To do that, run the two commands

```
cd is52038b-labs/01/java
make test
```

if you are learning Java, and

```
cd is52038b-labs/01/cpp
make test
```

if you are learning C++.

If your installation is working, you should get a reassuring message. If it isn't, you are likely to get a hard-to-understand error message; if you don't know how to go about fixing the problem, please ask on the discussion forum.