

**Lab 6 · Conditionals and Loops***Lecturer: Philippos Mordohai, Shudong Hao**Date: October 5*

## 1 Objectives

- Simple conditionals
- Loops

## 2 Conditionals

For the two questions below, you can declare the variables in **data** segment and initialize them with any value you like.

- (1) Convert the following C code to ARM assembly and print out the value of **f**.

```
1  if (i == 4)
2      f = g + 1;
3  else
4      f = g - 2;
```

- (2) Convert the following C code to ARM assembly and print out the value of **c**.

```
1  if (a + b == 14)
2      c = 3;
3  else
4      c = -2;
```

## 3 Loops

- (1) Write a program that adds all integers from 1 to 10 and prints the result.
- (2) Write a program that adds the digits of your CWID number and prints the result.

## 4 What to Submit

A zip file containing:

- Four assembly source code files;
- A pdf with screenshots showing the outputs of the four programs and your source pasted in the file.