Assignment 3 (3%)
Greatest Common Divisor

Deadline: Friday 29 October 2021 at 23:59 on Submitty

Working individually, complete the assignment below. Submit your solution to Submitty (`https://submit.scss.tcd.ie`). By submitting your solution, you are confirming that you have familiarised yourself with College's policy on plagiarism (`https://libguides.tcd.ie/plagiarism`).

Your mark will be the auto-graded mark assigned by Submitty (7 marks) plus a manually assigned mark (3 marks) for your pseudo-code (see below).

You are allowed to submit five attempts for the assignment without penalty. Subsequent attempts will attract a 1 mark penalty each, up to a maximum penalty of 5 marks.

Submitty will allow you eight "late days" over the full semester. This means, for example, you can submit one assignment late by eight days or eight assignments late by one day each, without penalty. Once your "late days" are used up, you will receive zero marks for any late submissions.

Instructions

The greatest common divisor of two positive integers a and b is the largest integer that divides both a and b without a remainder. For example, the largest common divisor of 24 and 32 is 8.

Write an ARM Assembly Language program that will compute the greatest common divisor of two positive integers stored in `R2` and `R3`. Store the GCD in `R0`.

Your solution should include pseudo-code comments to explain your approach, using a Java-like syntax (see lecture 4.1, slide 6).

If you use the work of others to inspire your solution, you **must** cite your sources.