Assignment 2
2D Arrays

Deadline: Friday 25 February 2022 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 (10 marks).

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 (or part thereof) each, without penalty. Once your "late days" are used up, you will receive zero marks for any late submissions.

Instructions

Write an ARM Assembly Language program that will determine whether a square 2D array, B, is contained within another, larger square 2D array, A, as illustrated below.

48	37	15	44	3	17	26
2	9	12	18	14	33	16
13	20	1	22	7	48	21
27	19	44	49	44	18	10
29	17	22	4	46	43	41
37	35	38	34	16	25	0
17	0	48	15	27	35	11

A

49	44	18
4	46	43
34	16	25

B

The start address of A will be in R0 and the size of A (number of rows and columns) will be in R1. The start address of B will be in R2 and the size of B (number of rows and columns) will be in R3. Your program should store 1 in R0 if B is contained in A and 0 otherwise.