Practical 02

Assembly Language

THIS IS A PROCTORED PRACTICAL

YOU MUST SHARE YOUR SCREEN SO YOUR PARTICIPATION IN THIS PRACTICAL CAN FULLY INVIGILATED

1. Create a Github repository "Assembly_and_C"
2. Create a sub directory PRACTICAL_##
3. Add Github link to CA Spreadsheet
   e.g https://STUDENTID.github.com/Assembly_and_c/PRACTICAL_##
4. Invite Lab Supervisors including **MuddyGames** as a collaborators
5. Go to designated group to complete practical
6. Upload completed Practical files to Github repository

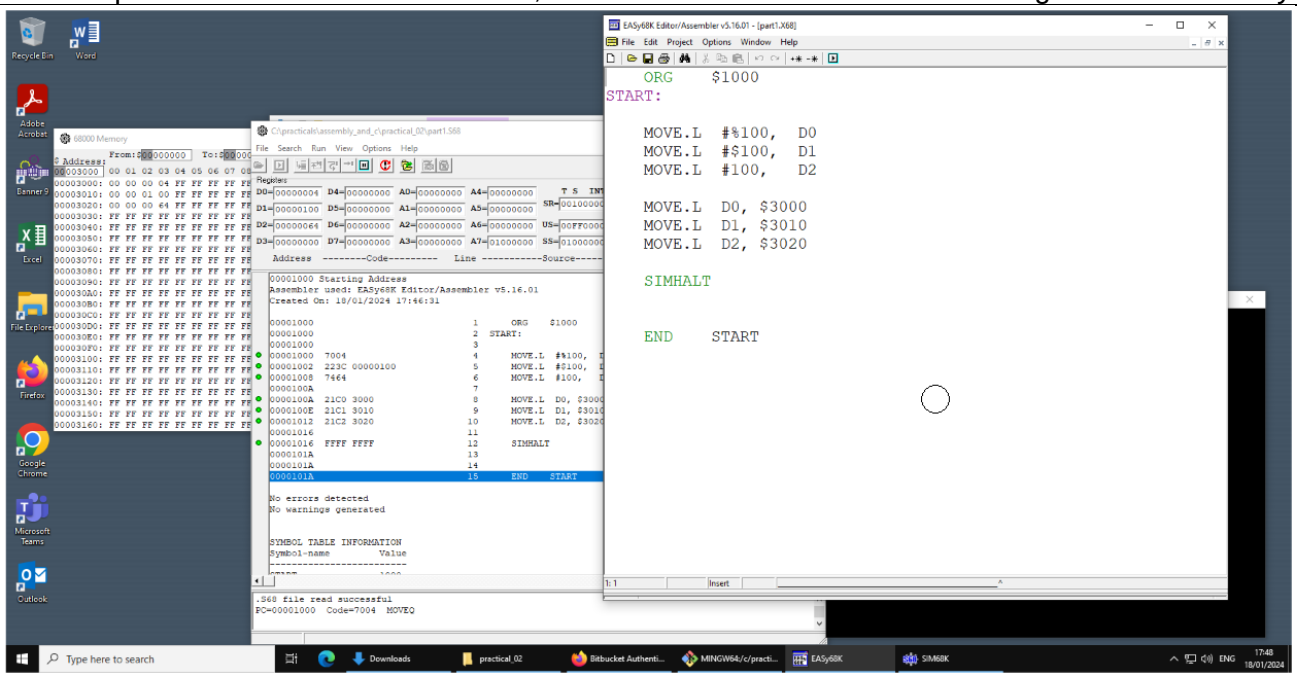
NOTE: Use of EASy68K editor and emulator allowed, use of internet allowed, use of slide deck(s) allowed. Installer located here http://www.easy68k.com/

Create a unique file ***e.g. practical_##_part#.X68*** for each practical section below.

Objective Understand and utilise Basic Memory concepts, BINARY, HEX and Literals**:**

1 Create a new 68K project and name the file ***practical_02_part1.X68***

Edit compile and execute the code below, examine and note contents of data registers and memory.



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Practical 02

Assembly Language

	Create a new 68K project and name the file ***practical_02_part2.X68***
	
	Edit compile and execute the code across and observe contents of memory while debugging.
	
	Review questions, what do the numbers stored in memory mean and why?
		`MOVE.L #%100, D0`
		`MOVE.L #$100, D1`
		`MOVE.L #100, D2`
		
		`MOVE.L D0, $3000`
		`MOVE.L D1, $3010`
		`MOVE.L D2, $3020`
		
		`MOVE.W #100, $3020`
		`MOVE.W #$100, $3010`
		`MOVE.W #%100, $3000`

3	Create a new 68K project and name the file ***practical_02_part3.X68***
	
	Edit compile and execute the code across and observe contents of memory while debugging.
	
	Review questions, what do the numbers stored in memory mean and why?
		`MOVE.L #%100, D0`
		`MOVE.L #$100, D1`
		`MOVE.L #100, D2`
		
		`MOVE.L D0, $3000`
		`MOVE.L D1, $3010`
		`MOVE.L D2, $3020`
		
		`MOVE.W #100, $3020`
		`MOVE.W #$100, $3010`
		`MOVE.W #%100, $3000`
		
		`MOVE.B #100, $3020`
		`MOVE.B #$64, $3010`
		`MOVE.B #%10001111, $3000`

4	Create a new 68K project and name the file ***practical_02_part4.X68*** Edit compile and execute the code across and observe contents of memory while debugging (based on the **Specification**) Review questions, what do the numbers stored in memory mean and why? Examine what are the values	**4 Specification**: Complete the following operations MOVE.L MOVE.B MOVE.W Moving data to memory Use your own examples For Literals, Hex and Binary Move to **Data** to **Data Registers**

	that can be stored for each bit width of data?	and to **Memory**. Move data from **Memory** to **Data Registers**. Your solution should include at least **18 examples** for the above.
5	Complete Practical Quiz which will be provided by Lab Supervisor	

Demonstrate completed assembly files at the end of the LAB and ensure it has been checked

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Date	**20/1/2025**	**Checked**	