

Practical 01

Assembly Language

THIS IS A PROCTORED PRACTICAL

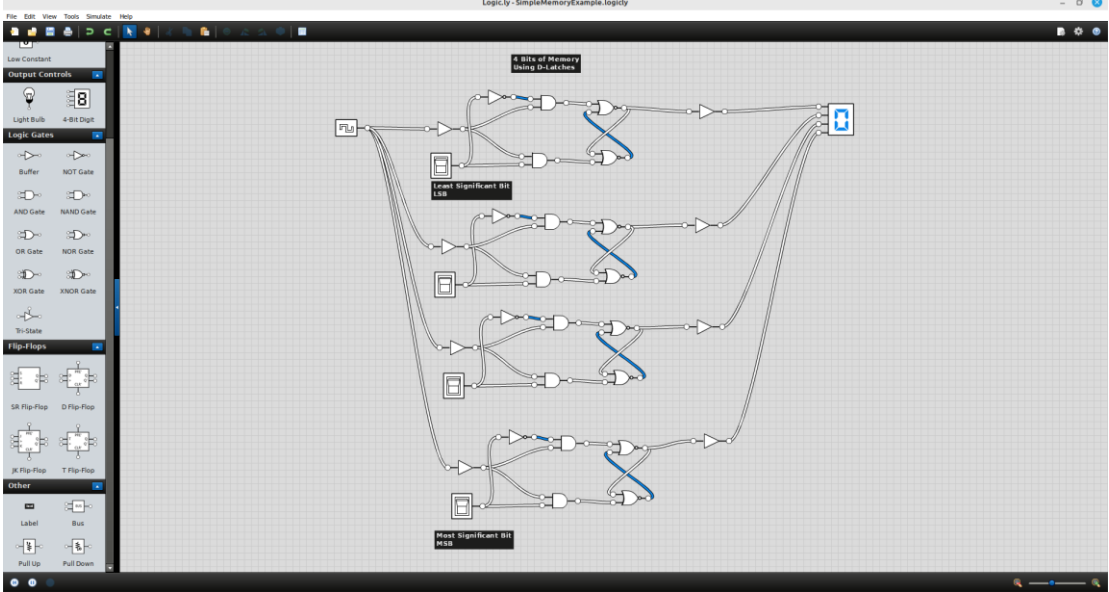
YOU MUST SHARE YOUR SCREEN SO YOUR PARTICIPATION IN THIS PRACTICAL CAN FULLY INVIGILATED

1. Create a Github repository "Assembly_and_C"
2. Create a sub directory PRACTICAL_01
3. Add Github link to CA Spreadsheet
e.g https://STUDENTID.github.com/Assembly_and_c/PRACTICAL_01
4. Invite Lab Supervisors including MakeMuddyGames 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. part1.X68** for each practical section below.

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

1	<p>Create a new 68K project and name the file part1.logicly</p> <p>Create the following circuit using logic.ly</p>	<p>Store the following Decimal Values as Binary (Bits LSB to MSB)</p> <p>0 to 15</p>
		
2	<p>Create a new 68K project and name the file part2.X68</p> <p>Edit compile and execute the code across, examine and note contents of data registers and memory. Identify the memory location of \$3000 and its contents.</p>	<pre>MOVE.L #00001111,D1 MOVE.B D1,D2 MOVE.B D1,\$2000 MOVE.B \$2000,D2 MOVE.B \$2000,\$3000</pre>
3	<p>Create a new 68K project and name the file part3.X68</p>	<pre>ORG \$1000 START: MOVE.B #\$64,D1 LEA text, A1</pre>

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	Edit compile and execute the code across and observe the output.	<pre> MOVE #14,D0 TRAP #15 MOVE #3,D0 TRAP #15 SIMHALT text dc.b 'Data Register: ',0 END START </pre>
4	Create a new 68K project and name the file part4.X68 Edit compile and execute the code across and observe the input and output.	<pre> ORG \$1000 START: LEA text, A1 MOVE #4,D0 TRAP #15 MOVE #14,D0 TRAP #15 MOVE #3,D0 TRAP #15 SIMHALT text dc.b 'Data Register: ',0 END START </pre>

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

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Date	15/01/2025	Checked	yes