**Practical 7**

**Assembly Language**

NOTE: Use of EASy68K editor and emulator allowed, use of internet allowed, use of slide deck(s) allowed. Installer located here [**http://tinyurl.com/Easy68K**](http://tinyurl.com/Easy68K)  Create a unique file ***e.g. part1.X68*** for each practical section below.

**Objective** Understand and utilise Assembly **Addressing Modes:**

(1) Direct (2) Immediate (3) Indirect

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| --- | --- | --- | --- | --- |
| 1. Create a new 68K project and name the file ***part1.X68***    Edit compile and execute the code across, examine and note contents of data registers and memory. Identify the memory location of 100 and its contents. | | MOVE.B  MOVE.B  MOVE.B  MOVE.B  MOVE.B | #9,D1  D1,D2  D1,1100  1100,D2  1100,100 | |
| 2. Create a new 68K project and name the file ***part2.X68***    Edit compile and execute the code across and observe the output. | | ORG $1000  START:  MOVE.B #9,D1  LEA text, A1  MOVE #14,D0  TRAP #15    MOVE #3,D0  TRAP #15    SIMHALT    text dc.b 'Data Register: ',0    END START | | |
| 3. Create a new 68K project and name the file ***part3.X68***    Edit compile and execute the code across and observe the input and output. | 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

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

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| **Student Name** | **Yvonne Ryan** | **Student Number** | **C00263872** |
| **Date** | **12/01/2022** | **Checked** |  |

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