ECED3403 – Assignment 3

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# Testing

### LD and ST can successfully load and store data into memory

**Purpose:** Checks for successful implementation of LD and ST instructions.

**Configuration:** The data string “Grace Yu” is stored into data memory beginning at 0x0100. Using LD and ST, this is copied into data memory beginning at 0x0110. Both increment and decrement are used in these instructions, as well as word and byte manipulation.

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| **Expected Results:** | **Actual Results:** |
| “Grace Yu” should appear beginning in the original 0x0100 location, as well as beginning in the new 0x0110 location. |  |

**Pass/Fail:** PASS

### LDR and STR can successfully load and store data into memory

**Purpose:** Checks for successful implementation of LDR and STR instructions.

**Configuration:** The following .xme file is loaded into the emulator. It uses both LDR and STR commands, with negative and positive offsets, as well as word and byte manipulation.

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| **Expected Results:** | **Actual Results:** |
| * Data 0x1111   + Loaded relative from address 0x0100 by 0   + Increased by 2 to 0x1113   + Stored relative from address 0108 by 0 * Data 0x0041   + Loaded relative from address 0x0100 by 2   + Increased by 1 to 0x0042   + Stored relative from address 0x0108 by 2 * Data 0x00FF   + Loaded relative from address 0x0100 by 4   + Decreased by 2 to 0x00FD   + Stored relative from address 0x010D by -1 |  |

**Pass/Fail:** PASS