Obligatory Assignment 1 - A MIPS Assembler

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User manual

To run the assembler you need a input file, path name to hex output text file and path name to pretty print text file.

Running assembler To run the assembler one runs the following:

```
foo@bar:~$ java  -jar Darken.jar <Input file> <Pretty print path> <Hex output path>
```

Input file The input file should contain the valid assembly code to be assembled. Example:

```
# Test program for assignment 1 - a MIPS Assembler

    nor $t1, $zero, $zero
    sub $t1, $zero, $t1
    add $t2, $t1, $t1
    sw  $t2, 4($t5)
    lw  $t4, 4($t5)
    nop

label:  nop
    nop
    sub $t4, $t3, $t3
    beq $t4, $zero, label
    nop
```

The commands which the assembler supports is: add, sub, and, or, nor, slt, lw, sw, beq, addi, sll, j, jr and nop.

Hex output text file The assembler will produce a text file containing the input file's commands in assembly hex format. Example:

```
0x00004827
0x00094822
0x01295020
0x01495820
0x014b6024
0x01496025
0x012a682a
```

Pretty print text file The assembler will produce a text file containing the input file's commands both in hex format and it's orignal format. Including labels/commands addresses. Example:

```
                      # This is an example
                      label0:
0x00000000  0x20090001  label1: addi  $t1, $zero, 1   # A comment
0x00000004  0x200a0002          addi  $t2, $zero, 2
0x00000008  0x200b0003          addi  $t3, $zero, 3
0x0000000c  0x200cfffc          addi  $t4, $zero, -4

Symbols
label0   0x00000000    label1   0x00000000
```