

Obligatory Assignment 1 - A MIPS Assembler

Group members

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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 original 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 0x200cffff          addi $t4, $zero, -4

Symbols
label0  0x00000000  label1  0x00000000
```