Assignment 7

PDS1:

We would be using the same protocol as MIPS ie.

$0 Always zero

$1 Reserved for assembler

$2,$3 First and second return values

$4, ..., $7 First and second return values, respectively

$8, ..., $15 Temporary registers

$16, ..., $23 Saved registers

$24, $25 More temporary registers

PSD2:

We have used 32 word memory for data and 32 word for instruction memory.

PSD3:

For storing R type:

[31:26]: storing the op code

[25:21]: storing first source register

[20:16]: storing second source register

[15:11]: storing destination register

[10:6]: storing shift amount

[5:0]: storing function

For storing I type:

[31:26]: storing the op code

[25:21]: storing source register

[20:16]: storing destination register

[15:0]: storing immediate data

For storing J type:

[31:26]: storing the op code

[25:0]: storing the address

PSD9 and PSD10:

We have submitted a bubble.asm file also. In the veda memory we have stored the machine code for of bubble sort as written in this bubble.asm file. We have also written in the comment the line number in the veda memory file which corresponds to the line number of bubble sort.asm file. We have kept max size of array as 11, but it can be changed as per our wish. We are reading instruction from veda memory file, interpreting it in the decide file, storing it in the 32 registers in the decide file and lading and storing words from veda file.

Finally we are displaying the output on the console using $display().

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