Project Report CS220

-Apoorva Gupta 210179

-Geetika 210392

PSD1

- The following Registers are 32 bit long
1) $zero : Encoded as 0 to store the value of zero permanently.
2) $s0 - $s7: Encoded as 1 to 8 to store the values of variables.
3) $t0 - $t7 : Encoded as 9 to 16 to store the values temporarily.
4) $a0 - $a3: Encoded as 17 to 20 to store the parameter values
5) $v0 and $v1: Encoded as 21 and 22 to store the return values.
6) $sp : Encoded as 23 to store a pointer to the stack.
7) $ra: Encoded as 24 to store the return address.

PSD2

1) The veda memory is 256 is size i.e 2^8 and each instruction is 32 bit long
2) For data memory we use another data memory of size $2^8 = 256$
3) The stack pointer ($sp) will point to the topmost row of the data memory

PSD3

1) The layout for R-type instruction is :

6 bits	5 bits	5 bits	5 bits	5 bits	6 bits
opcode	rs	rt	rd	shamt	funct

2) The layout for I-type instruction is:

6 bits	5 bits	5 bits	16 bits
opcode	rs	rt	immediate

3) The layout for J-type instruction is:

6 bits	26 bits
Opcode	address