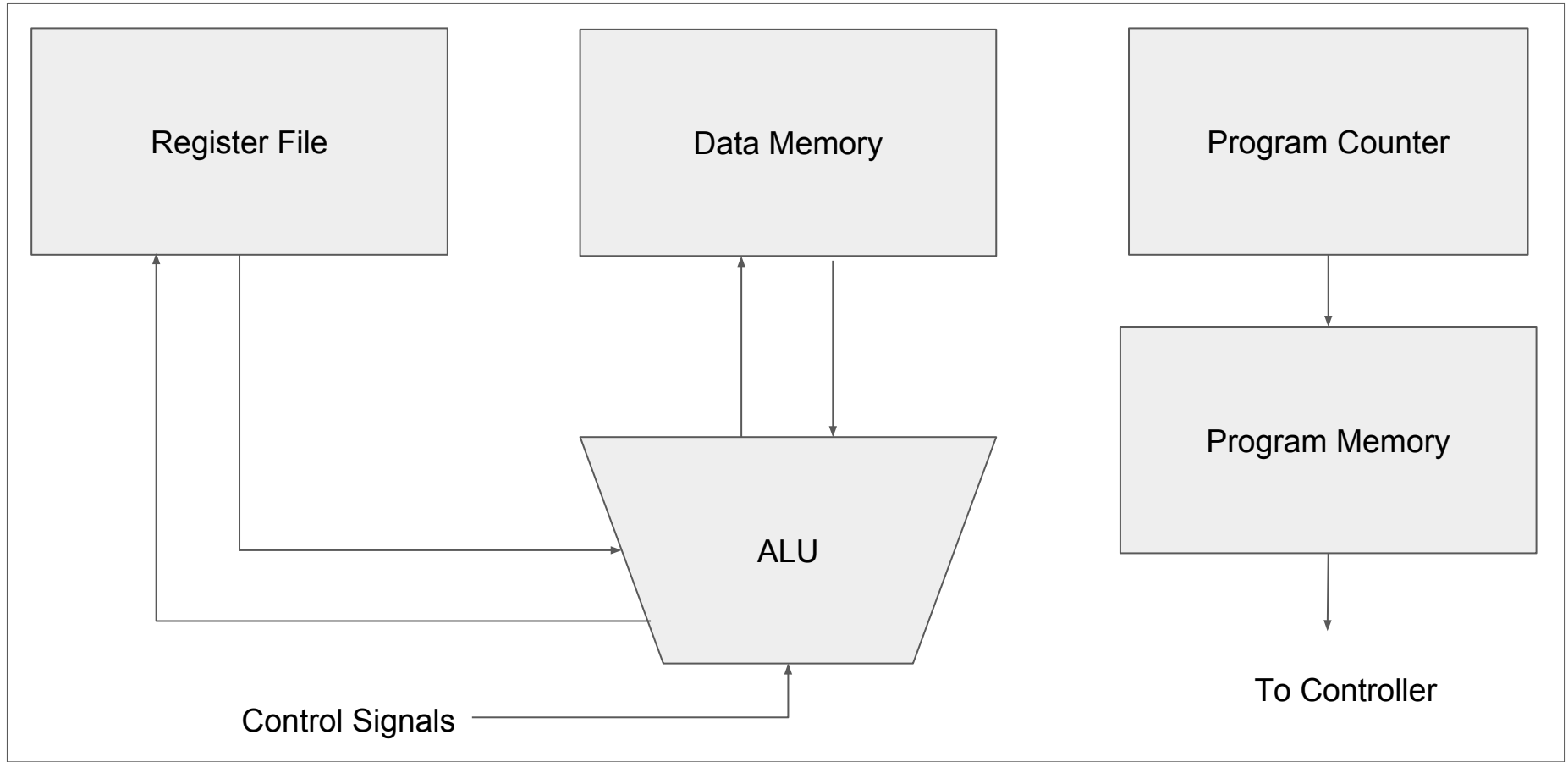


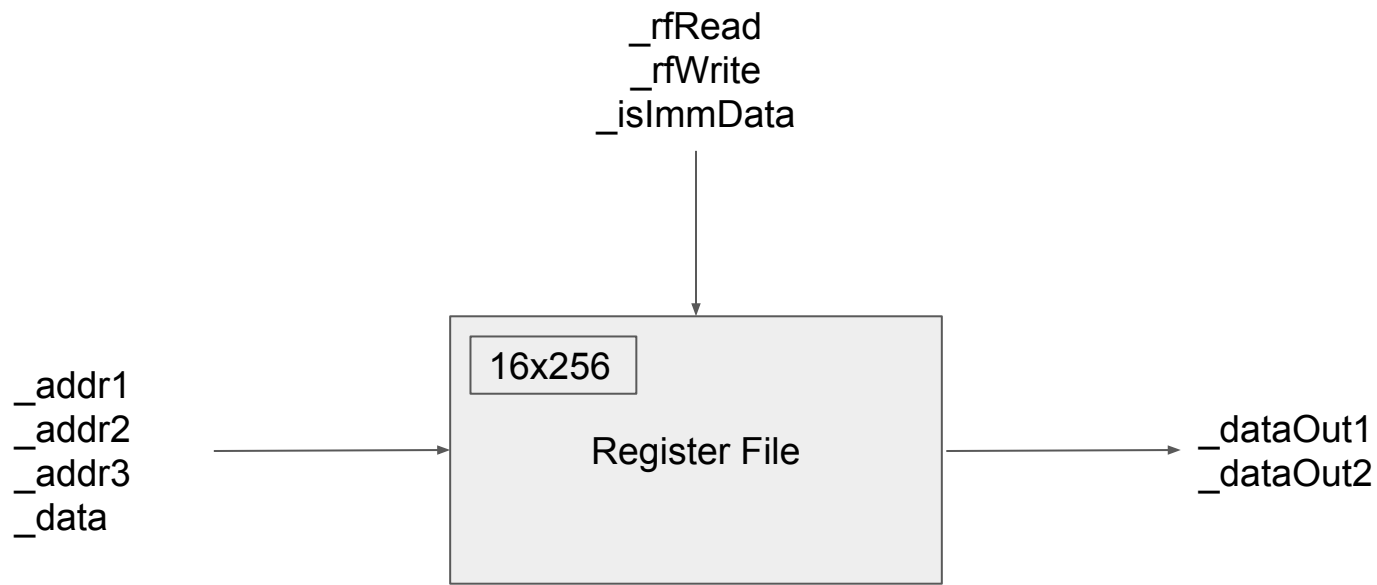
ESE501 Project 1

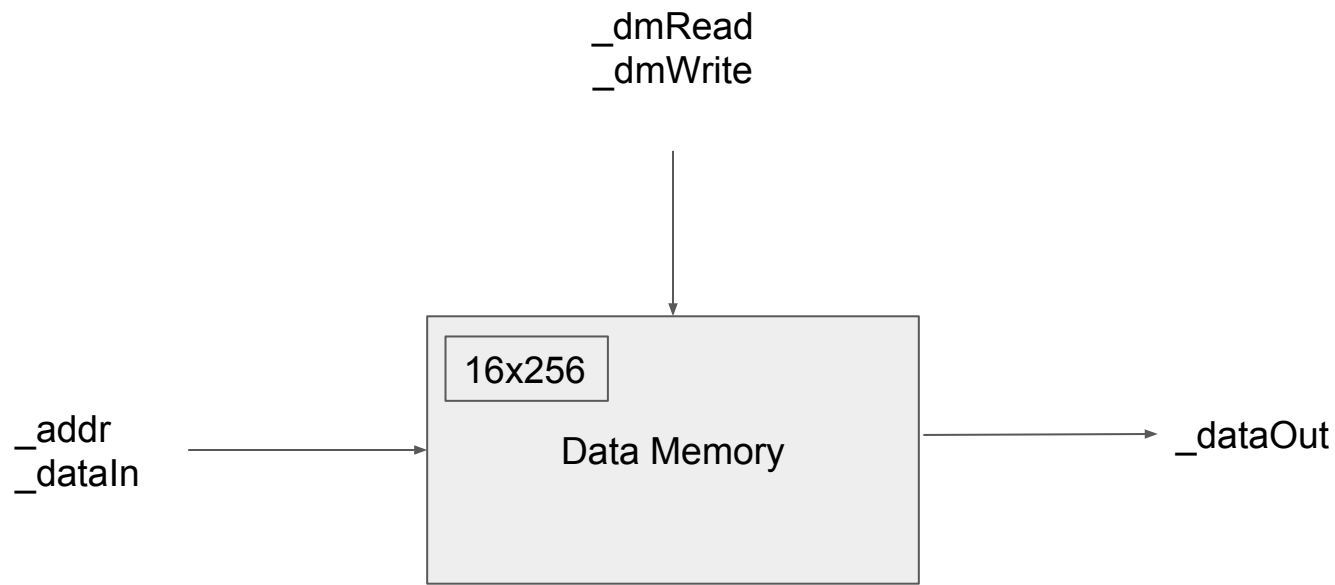
By: Anubhav Tomar (ID: *112268905*)

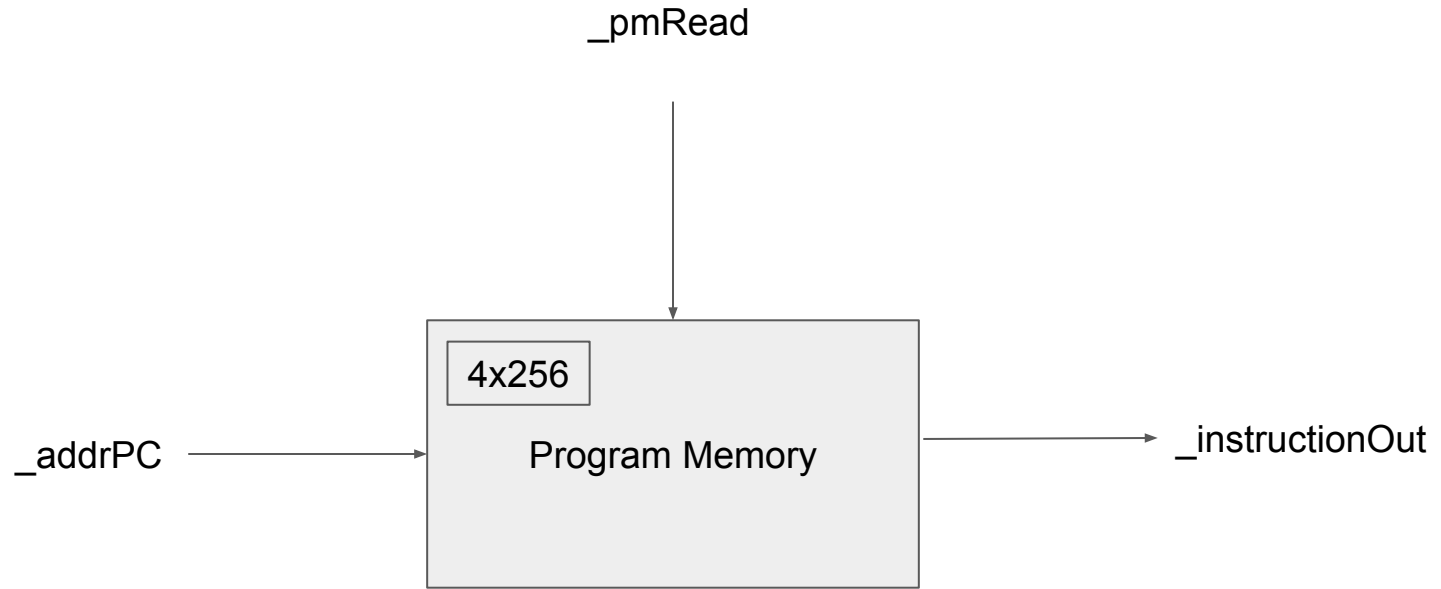
Data Path

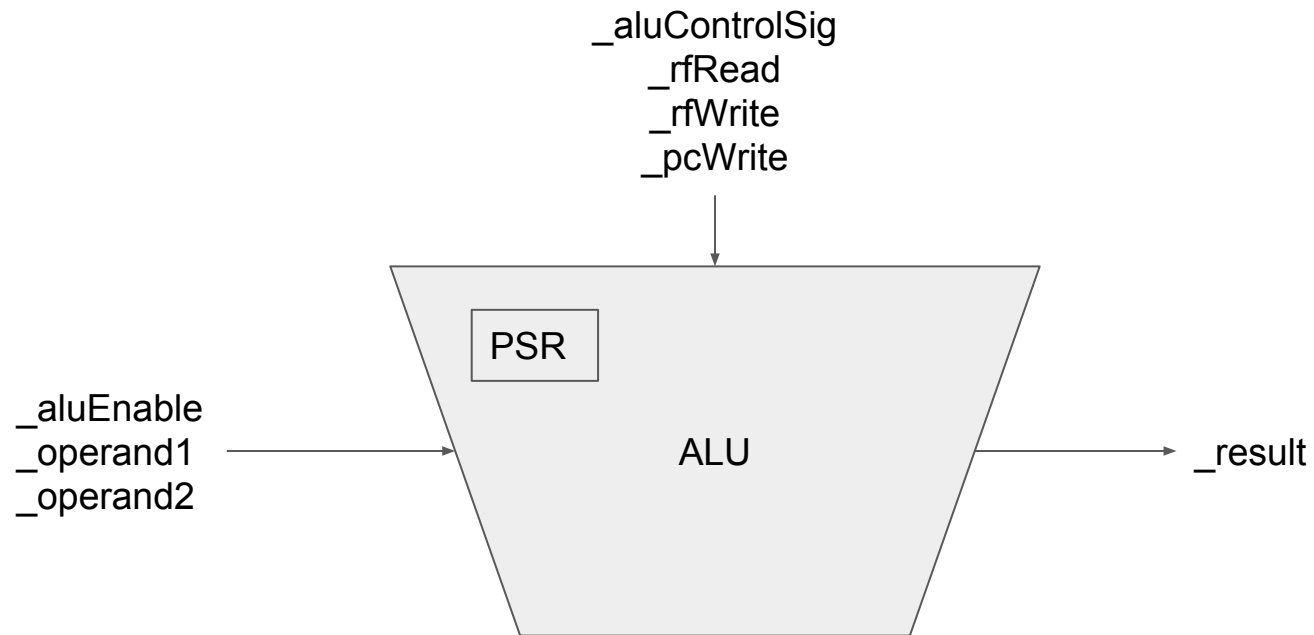
_modulesTop











Control Signals

Instruction	ALU	Immediate (_isImmData)	Memory Read (_rfRead)	Memory Write (_rfWrite)	PC Write (_pcWrite)
ADD	0000	0	1	1	0
ADDI	0000	1	1	1	0
SUB	0001	0	1	1	0
SUBI	0001	1	1	1	0
CMP	0010	0	1	1	0
CMPI	0010	1	1	1	0
AND	0011	0	1	1	0
ANDI	0011	1	1	1	0
OR	0100	0	1	1	0
ORI	0100	1	1	1	0
XOR	0101	0	1	1	0
XORI	0101	1	1	1	0
MOV	0110	0	1	1	0
MOVI	0110	1	1	1	0
LSH	0111	0	1	1	0
LSHI	0111	1	1	1	0
ASH	1000	0	1	1	0
ASHI	1000	1	1	1	0
LUI	1001	0	1	1	0
LOAD	1001	1	1	1	0
STOR	1010	0	1	1	0
Bcond	1011	1	0	0	1
Jcond	1100	0	1	0	1
JAL	1101	1	1	0	1