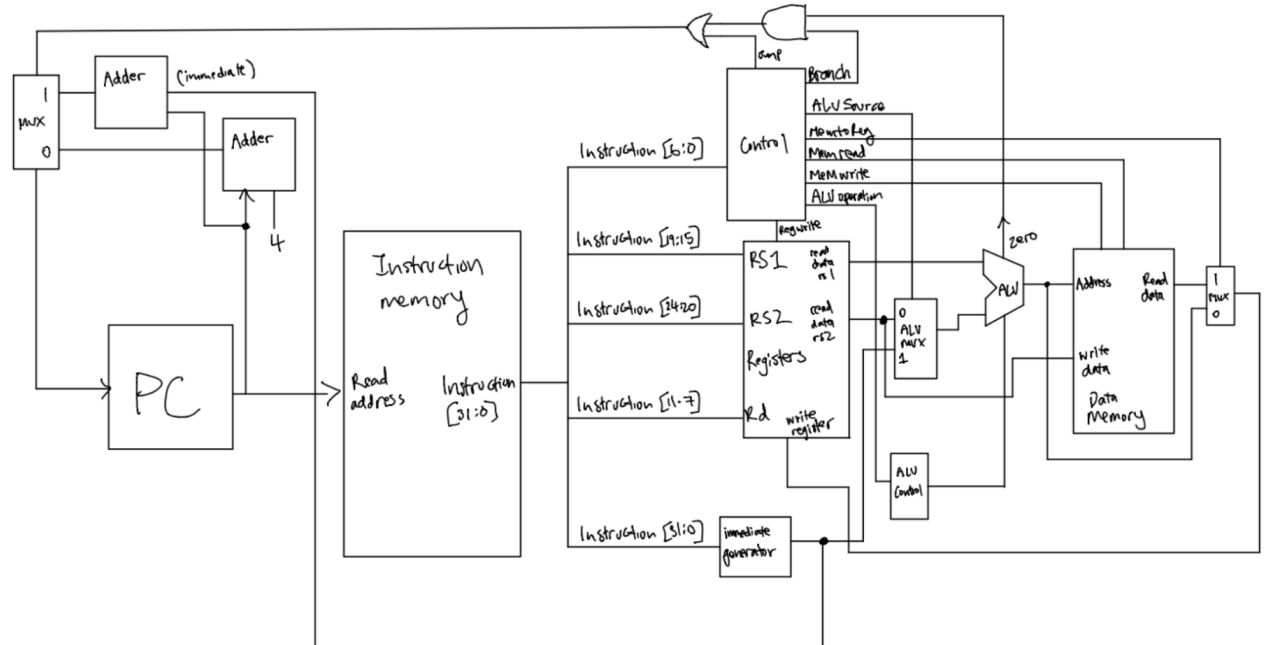


Name: Ivan Tran
 UID: 505989877
 CA1

Datapath/Controller drawing for 10 instructions



FALSE = 0

TRUE = 1

Control Signals are booleans:

Control Signal Table

instruction	ALUSRC	MEMTOREG	MEMREAD	MEMWRITE	ALUOP	REGWRITE	BRANCH	JUMP
ADD	FALSE	FALSE	FALSE	FALSE	N/A	TRUE	FALSE	FALSE
LUI	TRUE	FALSE	FALSE	FALSE	N/A	TRUE	FALSE	FALSE
ORI	TRUE	FALSE	FALSE	FALSE	N/A	TRUE	FALSE	FALSE
XOR	FALSE	FALSE	FALSE	FALSE	N/A	TRUE	FALSE	FALSE
SRAI	TRUE	FALSE	FALSE	FALSE	N/A	TRUE	FALSE	FALSE
LB	TRUE	TRUE	TRUE	FALSE	N/A	TRUE	FALSE	FALSE
LW	TRUE	TRUE	TRUE	FALSE	N/A	TRUE	FALSE	FALSE
SB	TRUE	FALSE	FALSE	TRUE	N/A	FALSE	FALSE	FALSE
SW	TRUE	FALSE	FALSE	TRUE	N/A	FALSE	FALSE	FALSE

BEQ	FALSE	FALSE	FALSE	FALSE	N/A	FALSE	TRUE	TRUE
JAL	FALSE	FALSE	FALSE	FALSE	N/A	TRUE	FALSE	TRUE

ALUOP: it depends on the instruction; instructions get defined as a type, and depending on the type that gets sent to the ALUCONTROL, it will do a different arithmetic operation.