For our register block, i used readmemb module to read binary file. Checked if the write signal is 1 and if so write the data to register. And then read the memories from registers. For writing data back to binary file i've tried using writememb but i got an error which says "ignoring unsupported system task" and couldn't find a solution so even though it changes the register block it doesn't change the file therefore in my testbench a register that was changed cannot be used in the next instruction since we call mips_register again and it re-reads data from the block which means for every instruction it uses the registers from the registers.mem file.

The mips_alu module gets funct code and shamt and datas as inputs, used case statement to select which output do i want and had an issue with default case i had some errors "Inferred latch" and "Laps has unsafe behavior" so i assigned outp to 32'b11111111111111111111111111111111. As a temporary solution. But couldn't find a better option.

As for mips_core module, parsed instruction, read the data from the register block, did the execution in ALU and used mips_registers module again to write the result of ALU to register. I've had couple of errors here one of them being "cannot be assigned to more than one value verilog" I tried to use read_data_1 in both mips_registers module calls but i get that error and after some research, i figured that the reason was i was trying to do parallel assignment or both of the assignments could've been done at the same time depending on the clock even if i was the one in control of it, it says that mips doesn't allow it so i sent 2 temporary buffer registers as a workaround. The other error was "Can't resolve multiple constant drivers for net" when i wanted to assign clocks twice before read call and after read call i still don't fully understand the reason of this but as a workaround i used 1'b1 for the write call.

PS. I might've changed the registers.mem so please be aware of possible different results.

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