Basic Processor Structural Code Implementation

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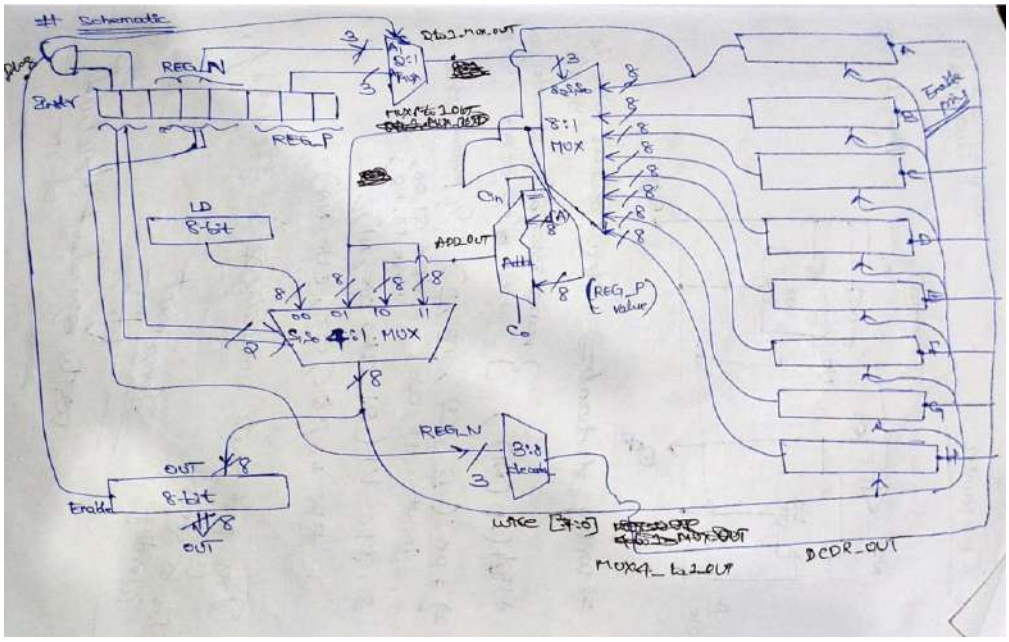
This is an **open-end assignment** in VLSI Laboratory Course (EC39004) which I have enrolled myself in Spring Semester 2021-22.

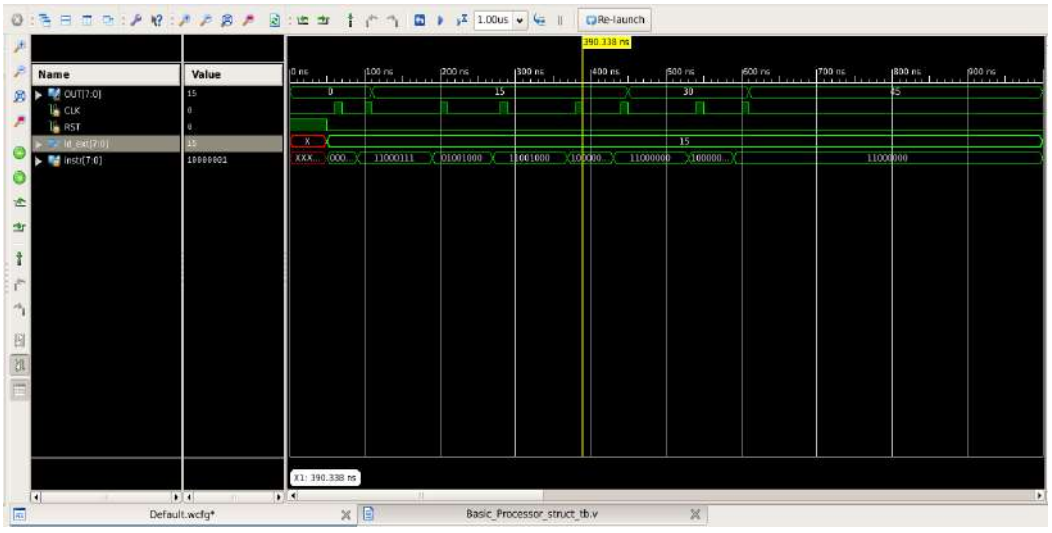
Objective:

- Write a Structural Verilog code to synthesize the given Basic Micro-Processor which takes an 8-bit instruction and can perform these 4 operations:
  - IN A
  - MOV A B
  - ADD A B
  - OUT A
- In the context of these operations, test the design giving instructions with any task that can be done using these 4 types of operations (eg., compute tripling a value).

CIRCUIT DIAGRAM



Simulation



Reference:

Structural File link is *here* (this file consists of only the Verilog code)

Corresponding Testbench is *here* (this file consists of only the testbench code)

GitHub link to all the files is *here*