Computer Systems

Assignment-01(Alarm Clock)

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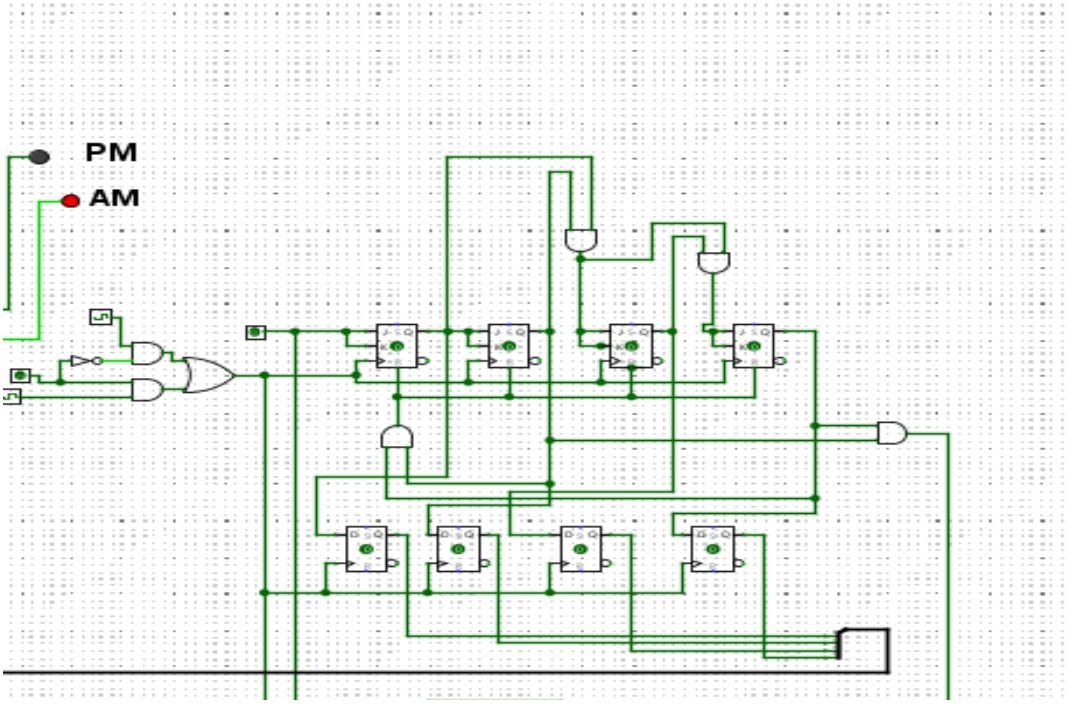
Introduction:

We were required to use Logisim to create an alarm clock for this assignment. My computer is equipped with the Logisim program, so I started creating an alarm clock with it.

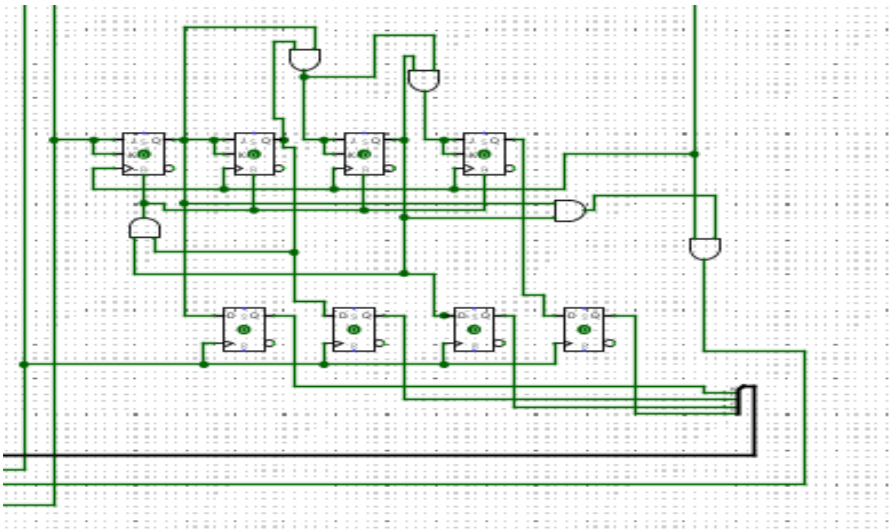
Step-1: Making Counters for Minutes:

Four j-k flip flops were used to create a ripple counter, and its output was then routed to four D-flip flops so that the outputs could be recorded. Next, I created a splitter with the configuration Bit width in 4 and fan out 4. In the splitter, I serially connected the outputs to the inputs. After that, I attached a hexadecimal display to the splitter. Here, the reset output is 10.



Step-2: Making Counters for Minutes:

I created the identical ripple counter in the subsequent phase, but this time the reset output was Only after the first counter refreshes would this counter start to increase.

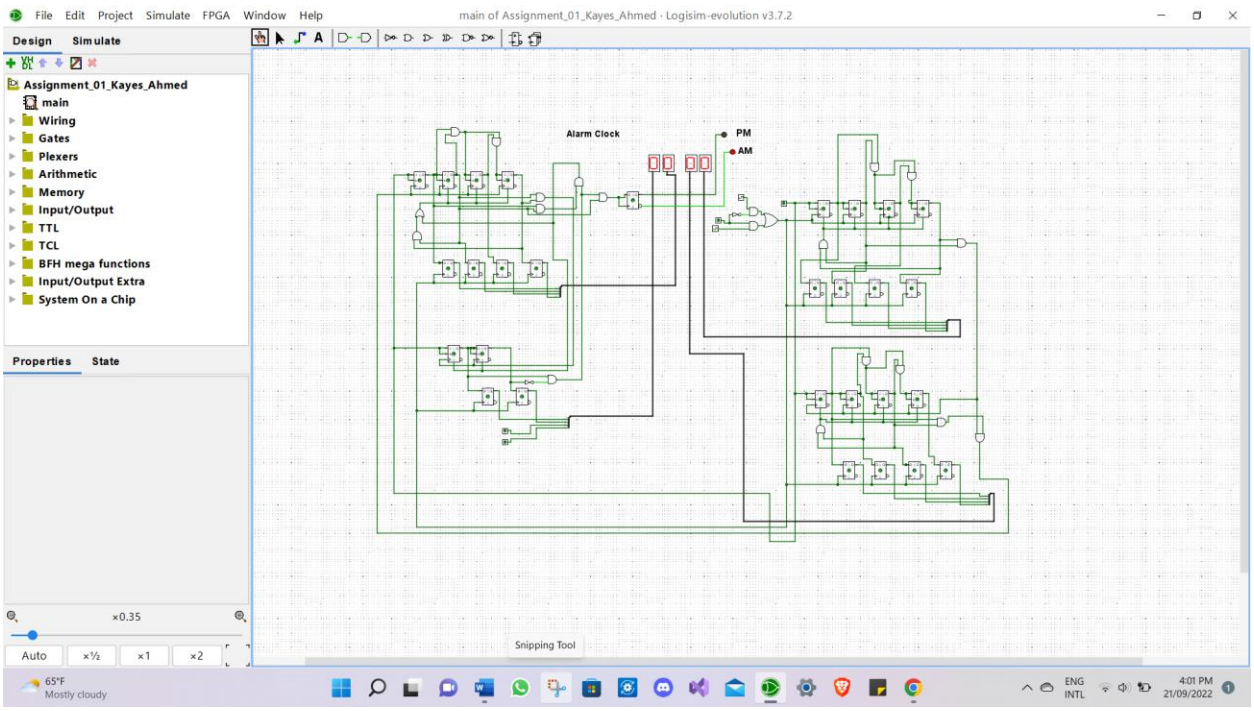


Description of the circuit:

The logic circuit is generally a digital alarm clock with numerous features, including the ability for the user to set an alarm and change the time.

Conclusion:

So far, I have done the clock only which is running perfectly and the rest of the part, Set Alarm I couldn't figure out. And that's why I have t done only this Clock part.


File Edit Project Simulate FPGA Window Help
main of Assignment_01_Kayes_Ahmed - Logisim-evolution v3.7.2
Design Simulate
Assignment_01_Kayes_Ahmed
main
Wiring
Gates
Plexers
Arithmetic
Memory
Input/Output
TTL
TCL
BFH mega functions
Input/Output Extra
System On a Chip
Properties State
Alarm Clock
PM
AM
×0.35
Auto ×½ ×1 ×2
Snipping Tool
65°F
Mostly cloudy
ENG
INTL
4:01 PM
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