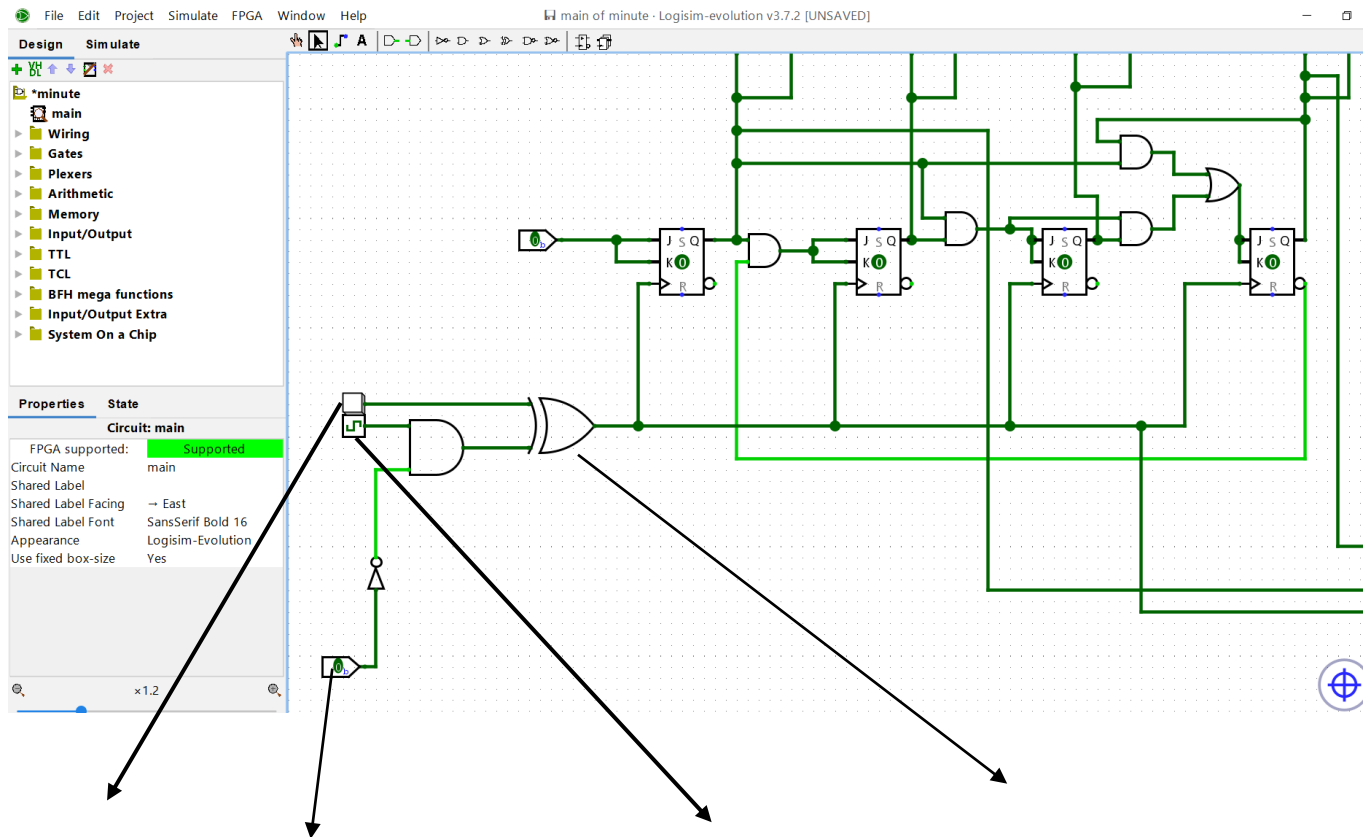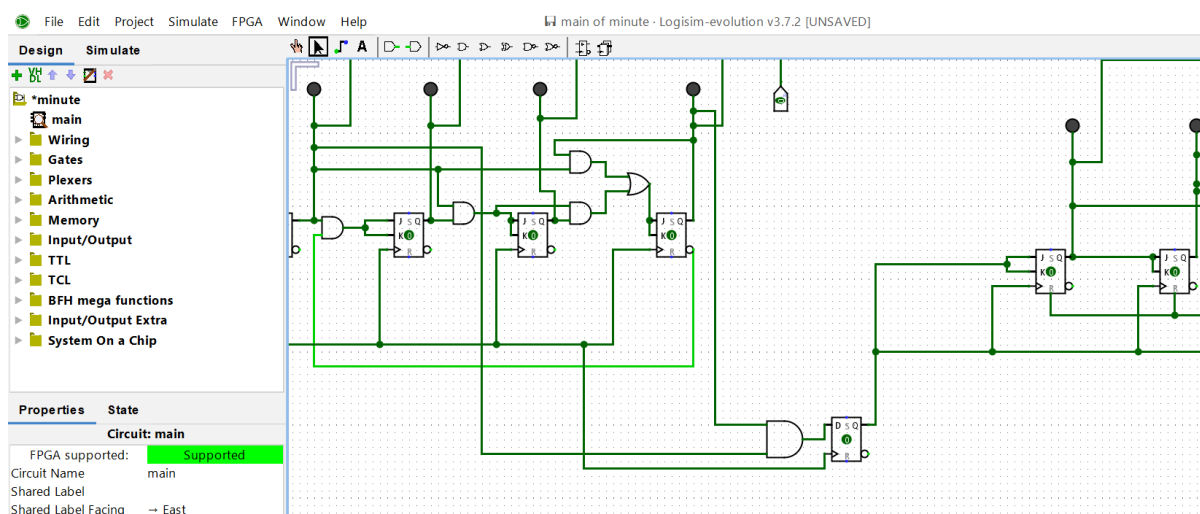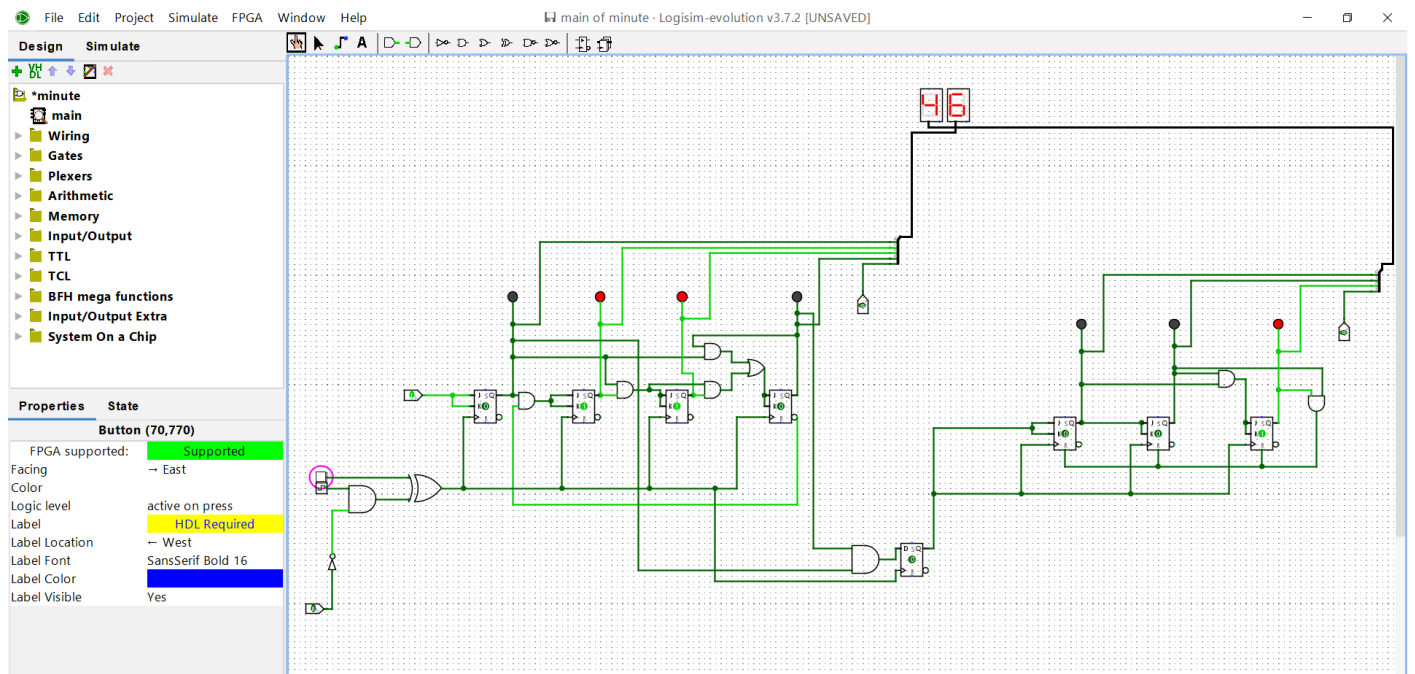Lab 6 is about the preparation of assignment 1.

After the minutes counter has been constructed, it is time to add Set Time mode and other Required and specified Functionalities as stated in assignment 1. To do so, gates logic and the truth table were required to be played with to create the desired buttons.

A button has been used to increment the minutes as the Set time mode is turned on. Furthermore, the logic gates will do the necessary tasks to help pass on bits when required. The clock pulse too can be halted to pause the time display.

The interconnection of the 0-5 and 0-9 counters to make a fully functional minute counter.

The whole minute counter looks like this and to avoid illegal values, a D Flip Flop has been used.

Hour Counter