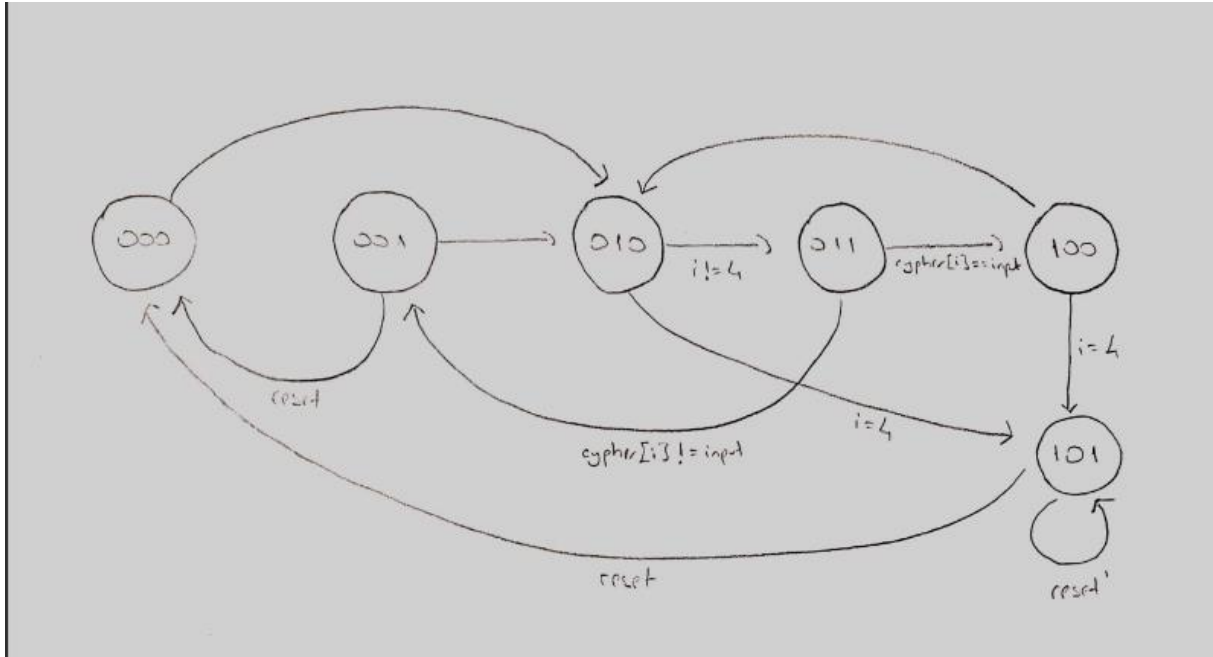# CSE331 – Bonus Assignment Report
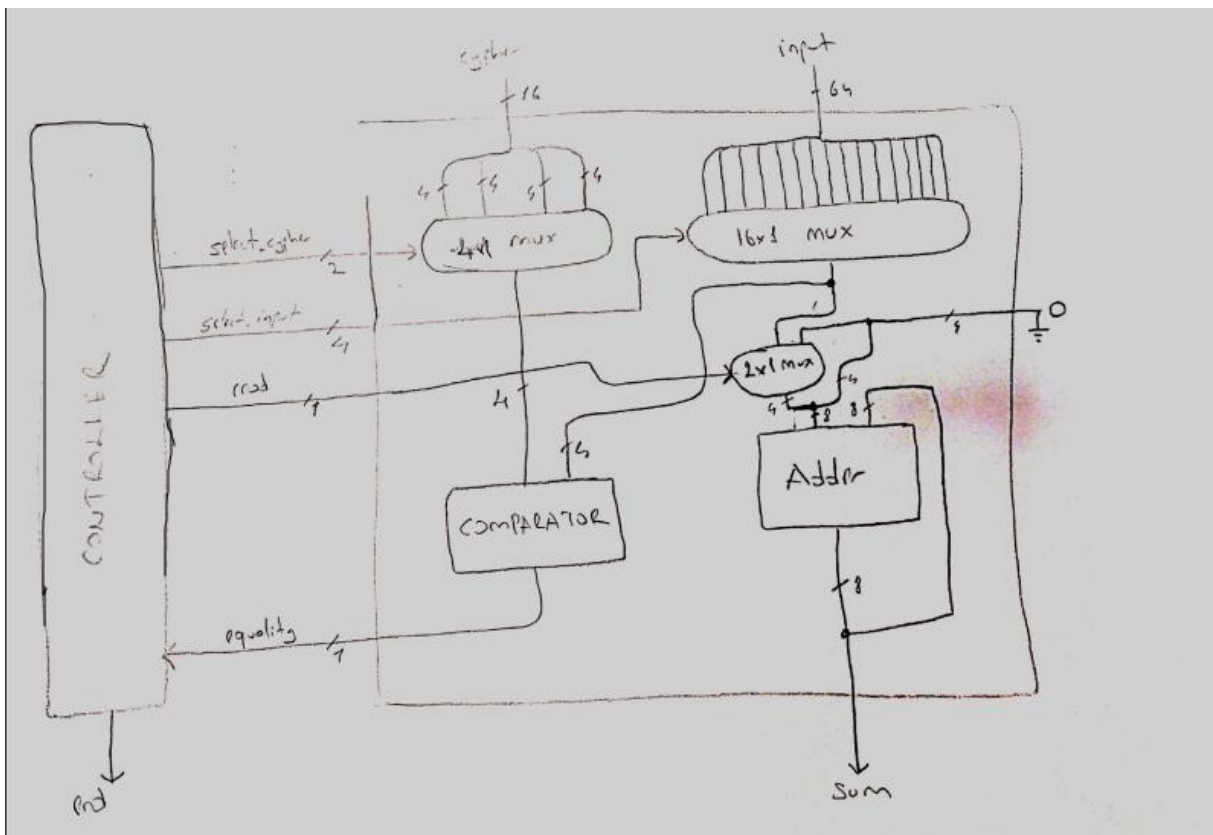
**Süleyman KORAMAZ**

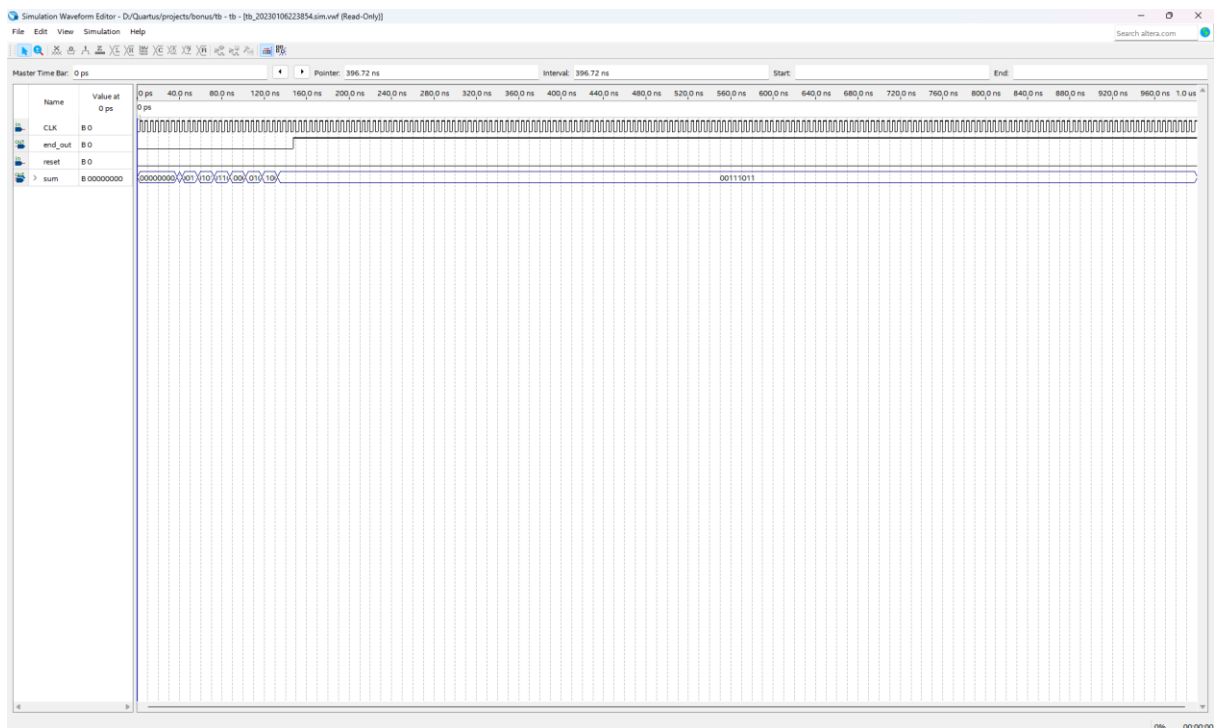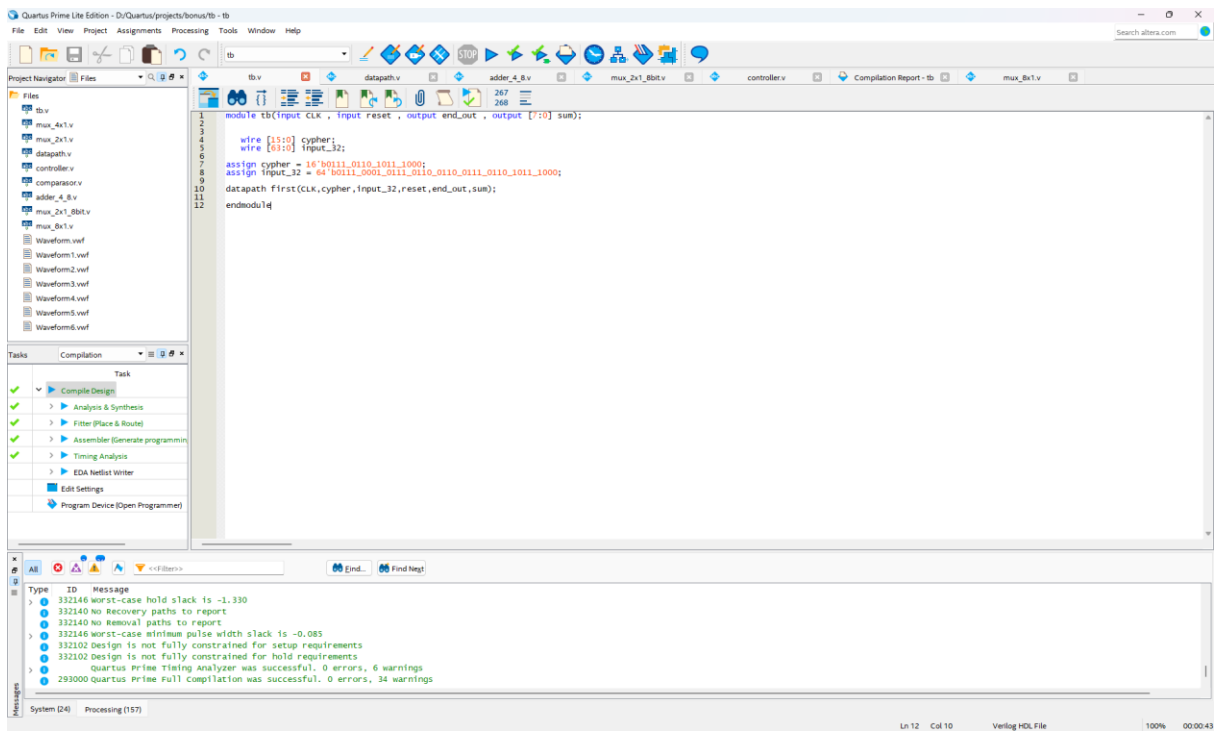**1901042615**

**1: FSM**



**2: DATAPATH**

## Simulation 01: (64-bit input)





**Cypher: 0111_0110_1011_1000**

**Input:**
**0111_0001_0111_0110_0110_**<span style="color:red">**0111_0110_1011_1000**</span>**_0001_1101_0001_0111_0001_0111**
**_0110**

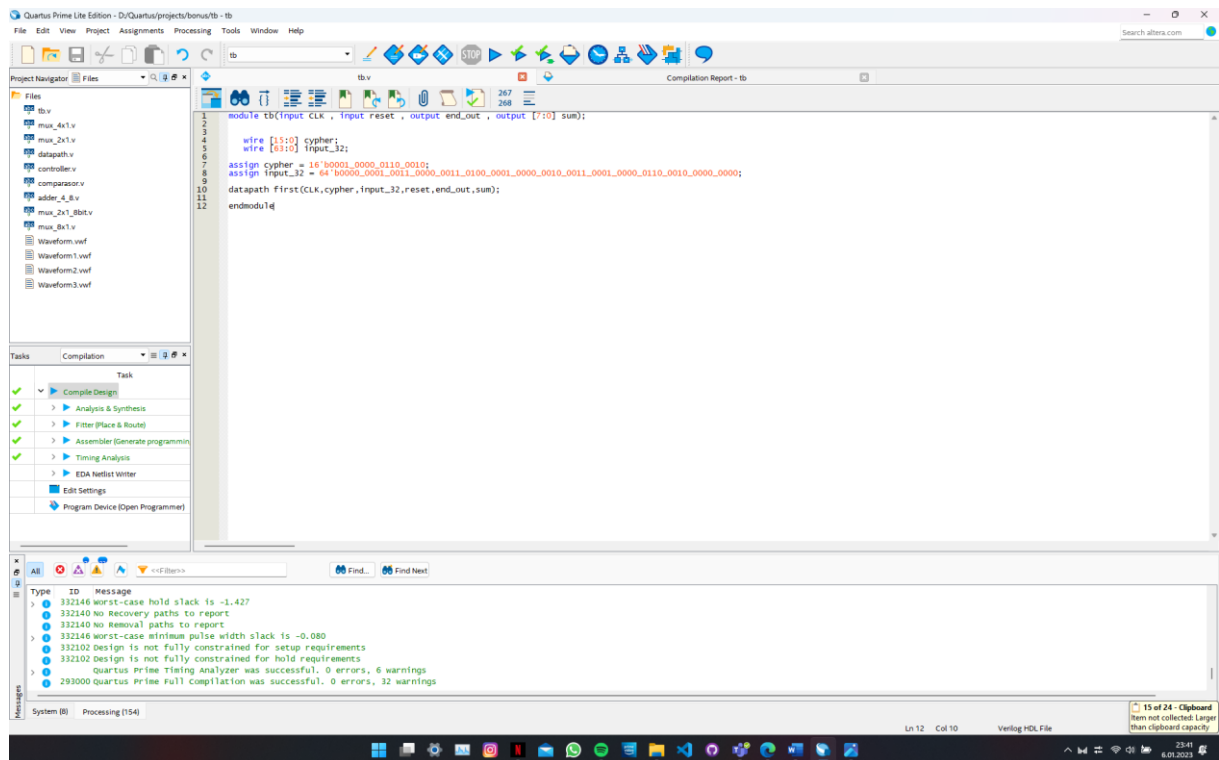**Sum: 59**

## Simulation 02: (36-bit input)
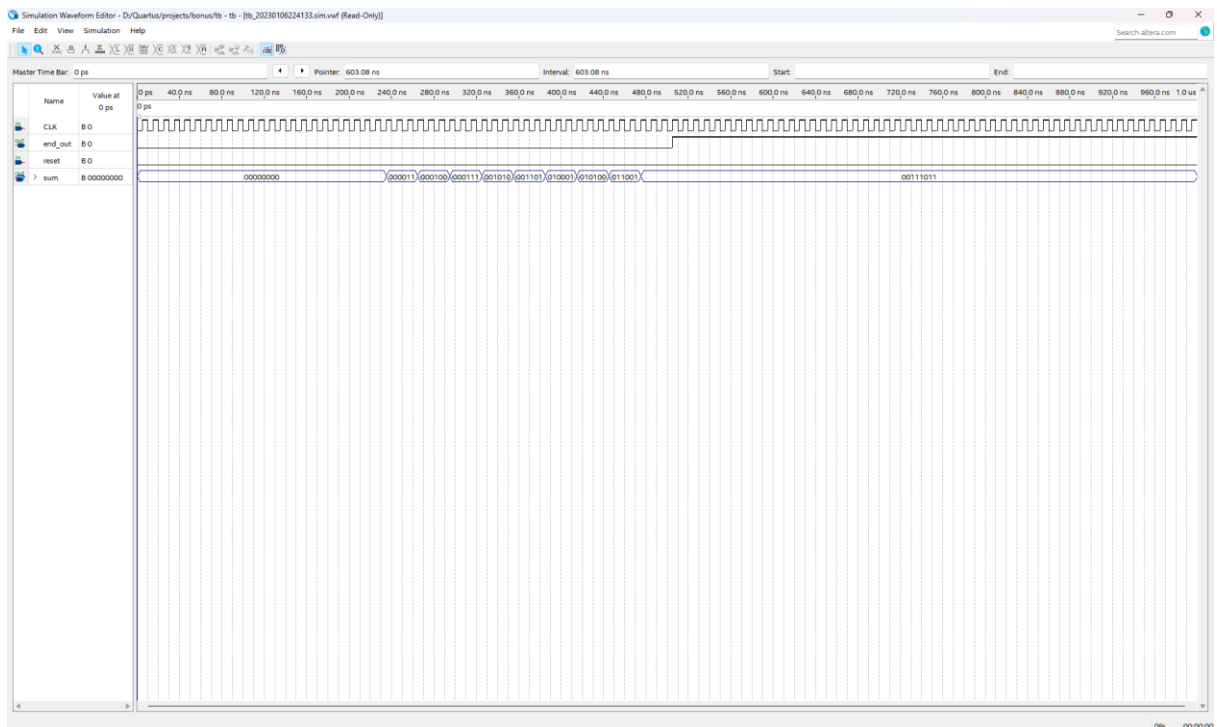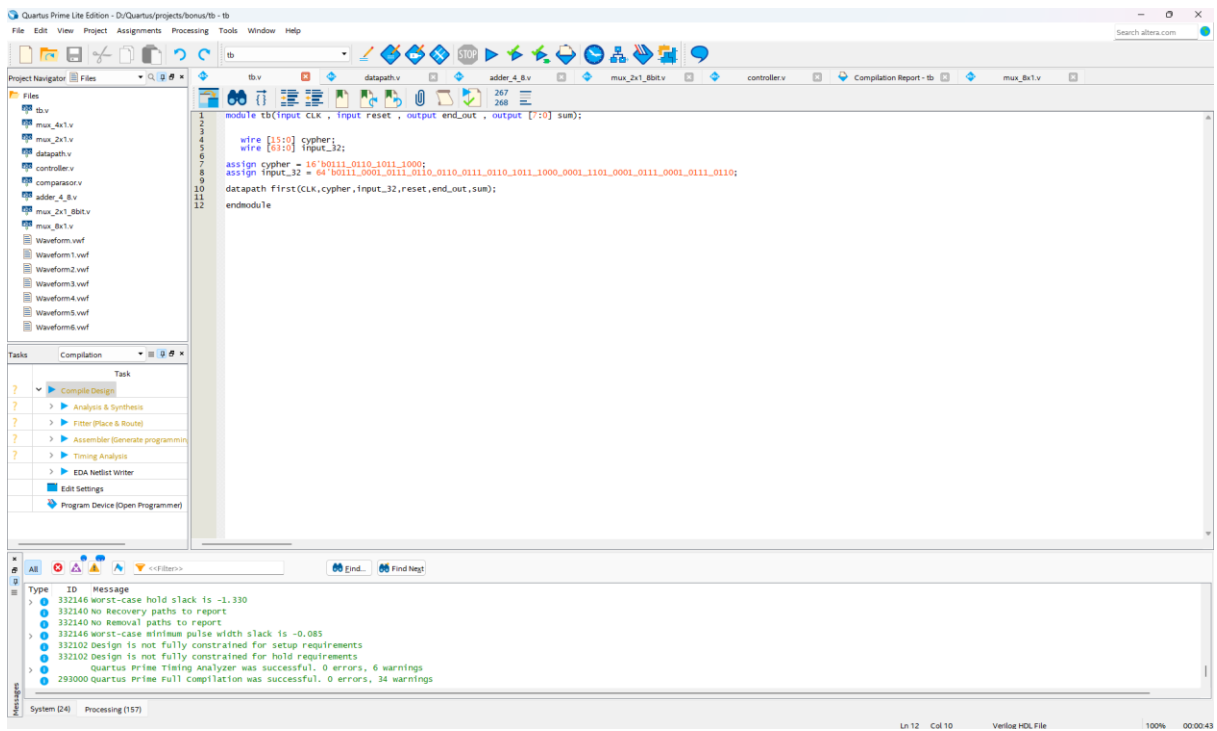




**Cypher: 0111_0110_1011_1000**

**Input: 0111_0001_0111_0110_0110_0111_0110_1011_1000**

**Sum: 59**

## Simulation03: (input 64-bit)





**Cypher: 0001_0000_0110_0010**

**Input:**
**0000_0001_0011_0000_0011_0100_0001_0000_0010_0011_0001_0000_0110_0010_0000_0000**

**Sum: 26**

NOTE: If the first 4-bit of the cypher is written 2 times in a row in input, the program may be corrupted. I couldn't find and figure out why.

I hope you will excuse me, thank you in advance.

With all respect…