**BEHAVIOURAL LEVEL MODELING**

# LAB # 05



# Spring 2021

[**CSE-308L Digital System Design Lab**](https://classroom.google.com/u/0/c/MzA5OTAyNzE2MzM2)

Submitted by: **Hurair Mohammad**

Registration No.: **18PWCSE1657**

Class Section: **B**

“On my honor, as student of University of Engineering and Technology, I have neither given nor received unauthorized assistance on this academic work.”

Student Signature: \_\_\_\_\_\_\_\_\_\_\_\_\_\_

Submitted to:

# Engr. Madiha Sher

Department of Computer Systems Engineering

University of Engineering and Technology, Peshawar

**OBJECTIVES:**

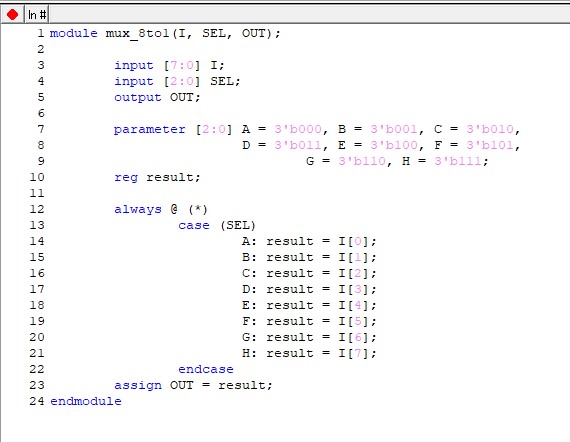
This lab will enable students to:

* Code using Behavioral level modeling
* Implement multiplexer and demultiplexer and decoder

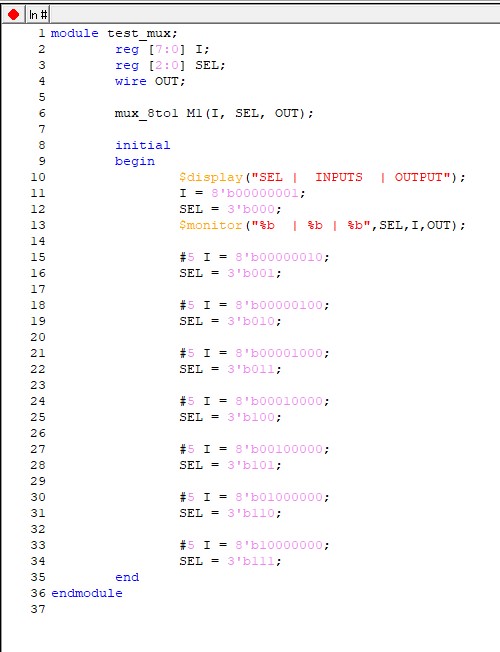
**TASK01:**

Implementation of 8x1 multiplexer (using case)

**CODE:**

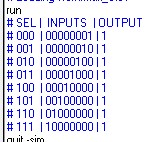


**TestBench:**

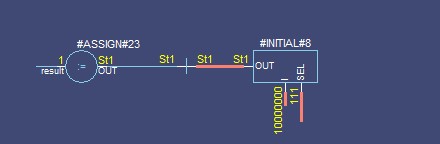


# OUTPUTS

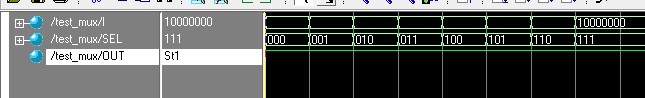
**Truth Table:**



**Data Flow:**



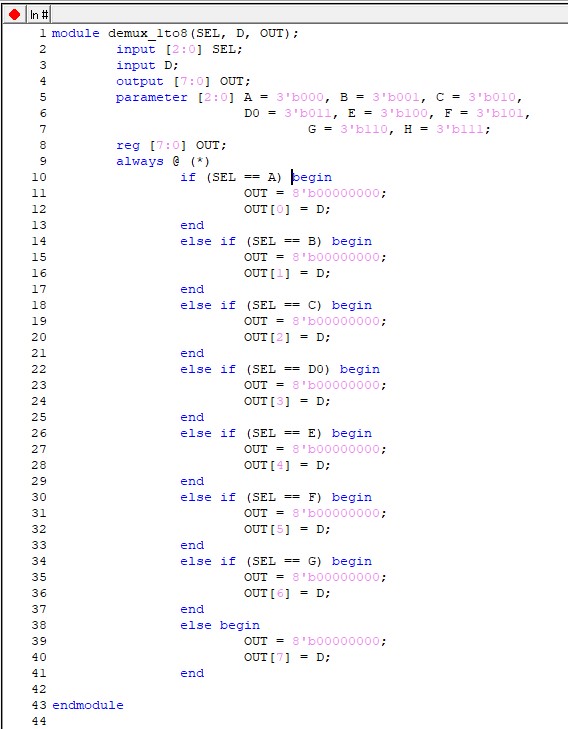
**Wave Form:**



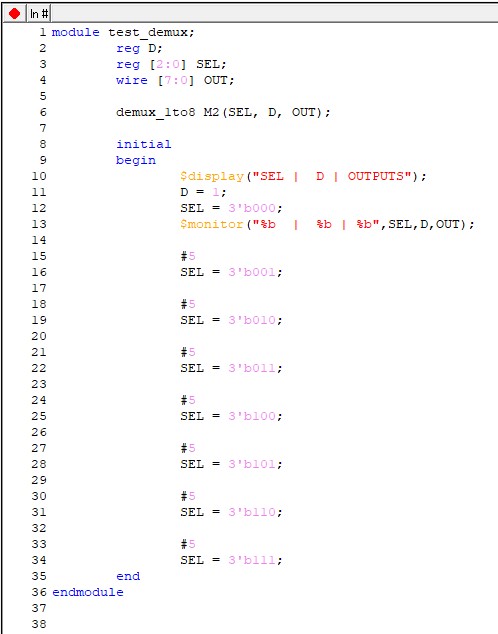
**TASK02:**

Implementation of 1x8 demultiplexer (using if/else)

**CODE:**

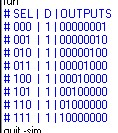


**TestBench:**

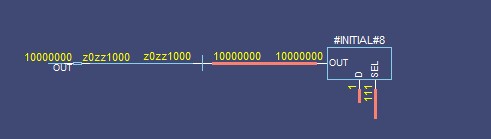


# OUTPUTS

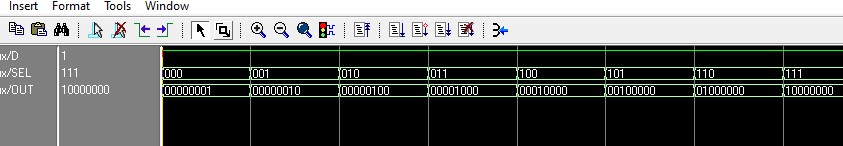
**Truth Table:**



**Data Flow:**

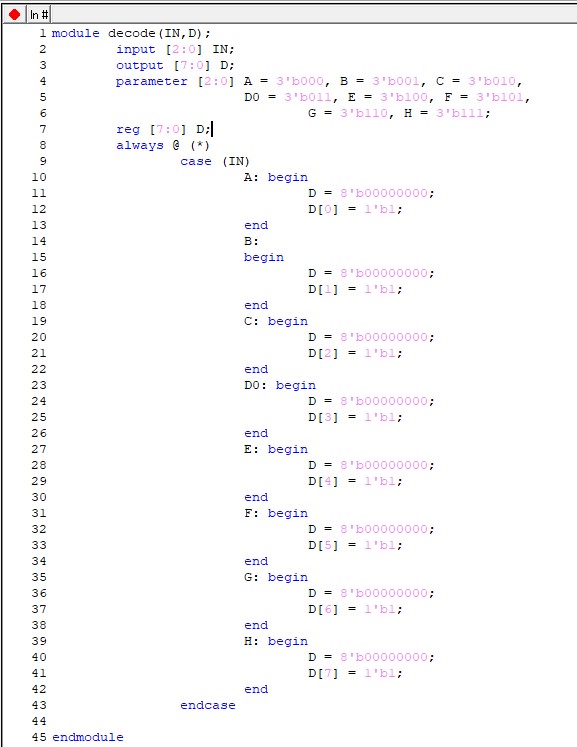


**Wave Form:**

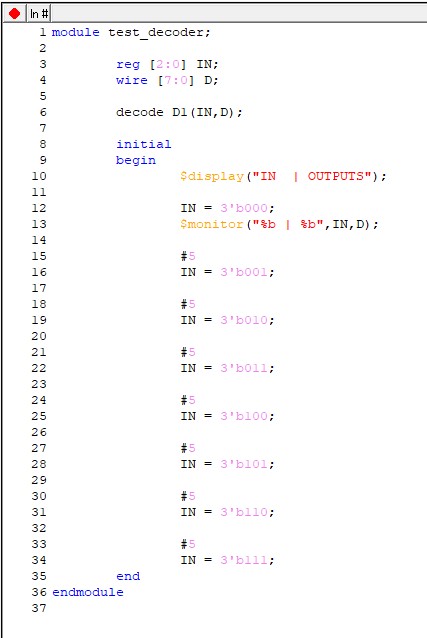


**TASK03:**

Implementation of 3x8 decoder **CODE:**

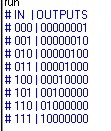


**TestBench:**

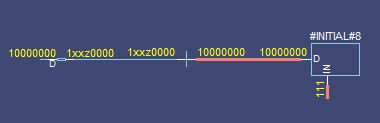


# OUTPUTS

**Truth Table:**



**Data Flow:**



**Wave Form:**

