Lab 4 Report

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CSE 369: Intro to Digital Design

October 30 2024

${\bf Task}~{\bf 2}-{\bf Item}~{\bf Table}$

Question:

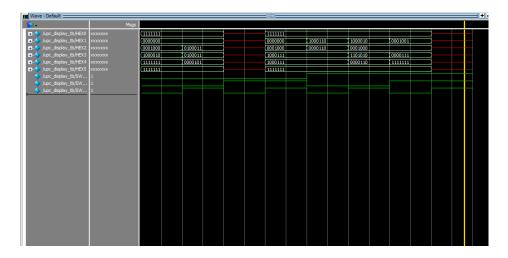
Your completed item table, showing your new items, their UPC codes, and classifications

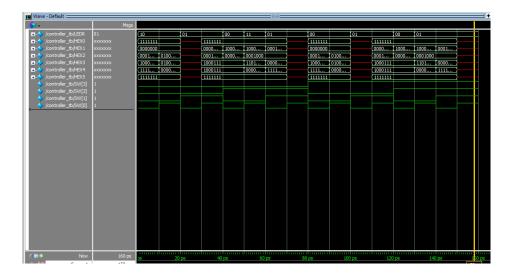
Item Name	UPC	Discounted?	Expensive?	
Bag	$0\ 0\ 0$	No	Yes	
Book	$0\ 0\ 1$	No	No	
Ball	0 1 1	Yes	No	
Cell	$1 \ 0 \ 0$	No	Yes	
Game	101	Yes	Yes	
Hat	$1 \ 1 \ 0$	Yes	No	

Task 2 - ModelSim

Question:

A screenshot of the ModelSim simulations you will demonstrate during the demo.



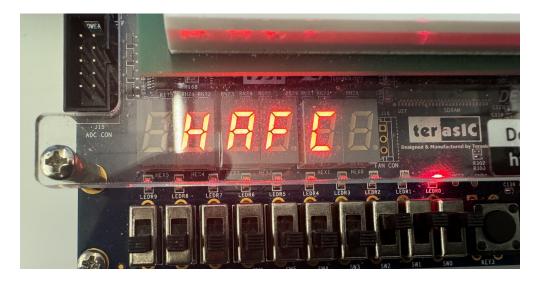


The top simulation represents the modelsim for the upc display. For each of the 6 valid upc's there is a set of values for each 7-segment display to describe the item. For the two don't care values, the value is undefined. Switch 0, 1, and 2, correspond to the values U, P, and C respectively. The bottom simulation represents the voerall controller, with a switch added to represent the marked field as used by lab3. This simulation simply combines the results of the upc display, and lab3.

Task 3 – Don't Cares

Question:

Drawings of the 7-seg display output for each of the unused UPC codes.





The top image represents the display for the don't care upc of 111.

The bottom image represents the display for the don't care upc of 010.

Reflection

Question:

How long did it take you?

Completing all of the lab took me around 2.5-3 hours