Final Project, Part I.

11/21/2025

Missing 35 Points Possible

Attempt 1

In Progress

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Unlimited Attempts Allowed

10/31/2025 to 11/21/2025

Details

Our "Final" project will be an **EPROM Programmer.**

This project will be split into two parts. For Part **I**, you will develop a system capable of **reading an EPROM** (which is needed as it's used to verify the programming (writing into) an EPROM). The basic specs are:

1. The EPROM will be the 27C64. Here is its datasheet: **27C64.pdf** (https://dlsu.instructure.com/courses/219256/files/28965908?wrap=1) (https://dlsu.instructure.com/courses/219256/files/28965908/download?download_frd=1)

2. The HC11 board (CT Lab) will be used to interface to it. You will write the HC11 assembly program to SEND and RECEIVE the required signals to the 27C64, following the EPROM's timing requirements as shown in the datasheet.

3. The requirement is to READ **only the first 25 bytes** of the EPROM (i.e. from address 000h to 018h). The data will be displayed on the host PC, in **hex and ASCII** format.

HOW are you going to accomplish this? (Well, that's why it's a PROJECT right? You think about it and come up with the solution!!)

Here are a couple of hints:

First, determine the power and signaling requirements to make an EPROM work (read). From our lectures you KNOW what these signals are (output enable, chip select, address...) - all of this information is in the datasheet - go and READ / understand the datasheet, and the timing diagram / table associated with reading from the EPROM.

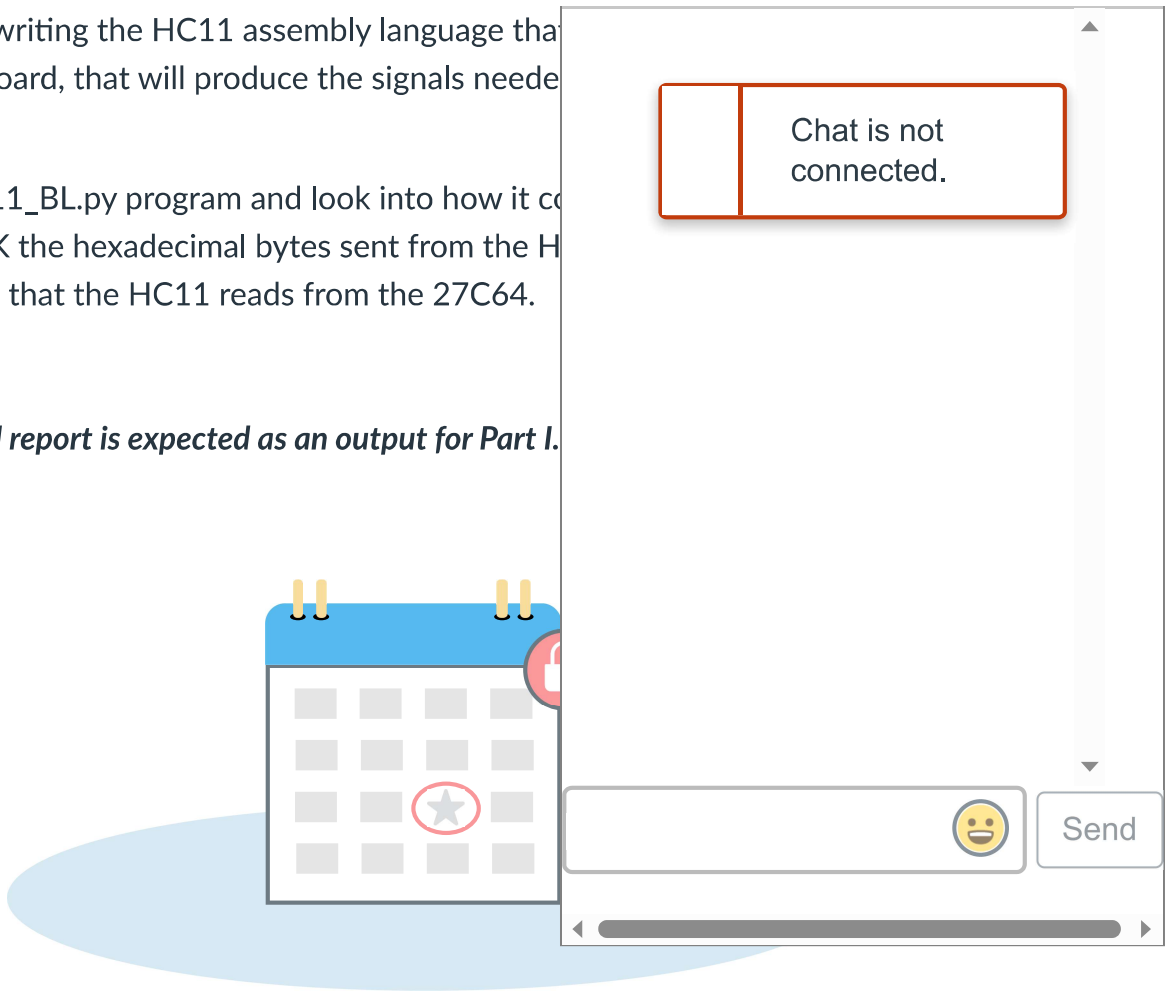
Then, DETERMINE what ports on the HC11 you will use to send / receive those signals (this is pretty obvious - PORTB is an "OUTPUT ONLY" port, so you can't use PORTB to read the data from the EPROM) - in fact there are two 8-bit ports on the HC11 that can be programmed / changed on the fly to OUTPUT and INPUT - choose one of them to become a DATA bus!) <Go over the HC11 Reference Manual>.

Course Chat

Think about / start writing the HC11 assembly language tha
PC into the HC11 board, that will produce the signals neede
each time)...

Get the python HC11_BL.py program and look into how it c
how it READS BACK the hexadecimal bytes sent from the H
display the 25 bytes that the HC11 reads from the 27C64.

A demonstration and report is expected as an output for Part I.



Availability Dates

10/31/2025 to 11/21/2025