Design of Digital Circuits: Lab Report		
Lab 8: Full System Integration (Session II)		
Date		Grade
Names		
		Lab session / lab room

You have to submit this report via Moodle.

Use a zip file or tarball that contains the report and any other required material. Only one member from each group should submit the report. All members of the group will get the same grade.

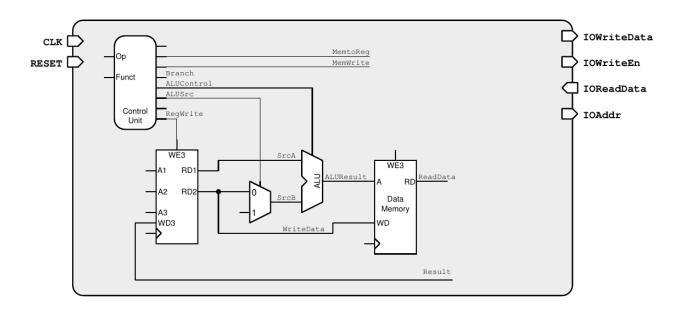
The name of the submitted file should be LabN\_LastName1\_LastName2.zip (or .tar), where LastName1 and LastName2 are the last names of the members of the group.

Note 1: Please include all the required material. No links/shortcuts are accepted.

Note 2: The deadline for the report is a hard deadline and it will not be extended.

## **Exercise 1**

Below is a part of the MIPS block diagram. Draw the necessary modifications for the memory mapped I/O on this block diagram. (We are only interested in the SW and LW instructions; the rest of the block diagram has been left out on purpose. *Hint: If your circuit works you already implemented this in the* MIPS.v *module.*)



## Exercise 2

Using Figure 1 as a reference, what additional hardware/architectural changes are needed in the top module (*top.v* file) to implement Challenge 2 described in the Manual of Lab 8, Session 2? You can either draw the additional circuitry required or write in your own words here.

## **Feedback**

If you have any comments about the exercise please add them here: mistakes in the text, difficulty level of the exercise, or anything that will help us improve it for the next time.