**Lab 12: A Simple Microprocessor: The DDmini**

**Primary Objectives:**

1. Design and build the control unit for a microprocessor.
2. Program the microprocessor.

**Design**

Diagram, schematic

Description automatically generated

Following the given rough outline for the control unit, I used ad-hoc design to design the control unit.

Programing microprocessor

The microprocessor was programmed by breaking down the given opcodes into RTL instructions which is then translated into binary and finally translated into hexadecimal.

Note: Instruction B was the instruction given by TA.













**Implementation**



**Testing**



Microprocessor works as expected.

**Conclusion**

The device works as expected.