



Subject: Computer Architecture lab

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Task # 1:

- i. Take an input from the user and store it in memory.
- ii. Retrieve the stored value from memory using the LDA instruction. Display the loaded value as output.

The screenshot shows a simulator interface with a menu bar (File, Edit, Modify, Execute, Help) and a toolbar. The 'Data' dropdown is set to 'Hex'. On the left, a 'Registers' table lists various registers and their values. On the right, a list of instructions (W1-0.a, XOR.a, NAND.a, NOR.a, not.a, LDA.a) is shown. The main area displays assembly code with line numbers 1 through 10. At the bottom, a status bar shows the execution progress and output.

Name	Width	Data
AC	16	0009
AR	12	001
DR	16	0009
E	1	0
I	1	0
IR	16	E001
PC	12	005
S	1	1

```
1
2 START:
3 INP
4 STA NUM
5 LDA NUM
6 OUT
7 HLT
8 NUM:.data 1 0
9
10
```

EXECUTING...
Enter Inputs, the first of which must be an Integer: 9
Output: 9
EXECUTION HALTED NORMALLY due to the setting of the bit(s): [HALT-BIT]