

# Bahria University, Karachi Campus



COURSE: CSL – 220

COMPUTER ARCHITECTURE AND LOGIC DESIGN LAB

TERM: FALL 2025 – CLASS: BSE – 3B

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Remarks:

Score:

## INDEX

# Bahria University,

## Karachi Campus



### LAB EXPERIMENT NO : 01

#### LIST OF TASKS

TASK NO	OBJECTIVE
01	<p>Write the following tasks in VVM Assembly Language program as well as VVM Machine Language format:</p> <ul style="list-style-type: none"><li>• Take two inputs from the user and subtract the first one from the other.</li><li>• Take three (any) hardcoded values and add them together.</li><li>• Take two inputs from the user, add them together and then subtract 100 from it.</li><li>• Take three inputs from the user. Add the first two inputs together and then subtract the third input from the result.</li><li>• Take one input from the user, subtract 50 from it, and then double the result by adding the result to itself.</li></ul>

**Submitted on:**

11 September 2025

## **Task 1:**

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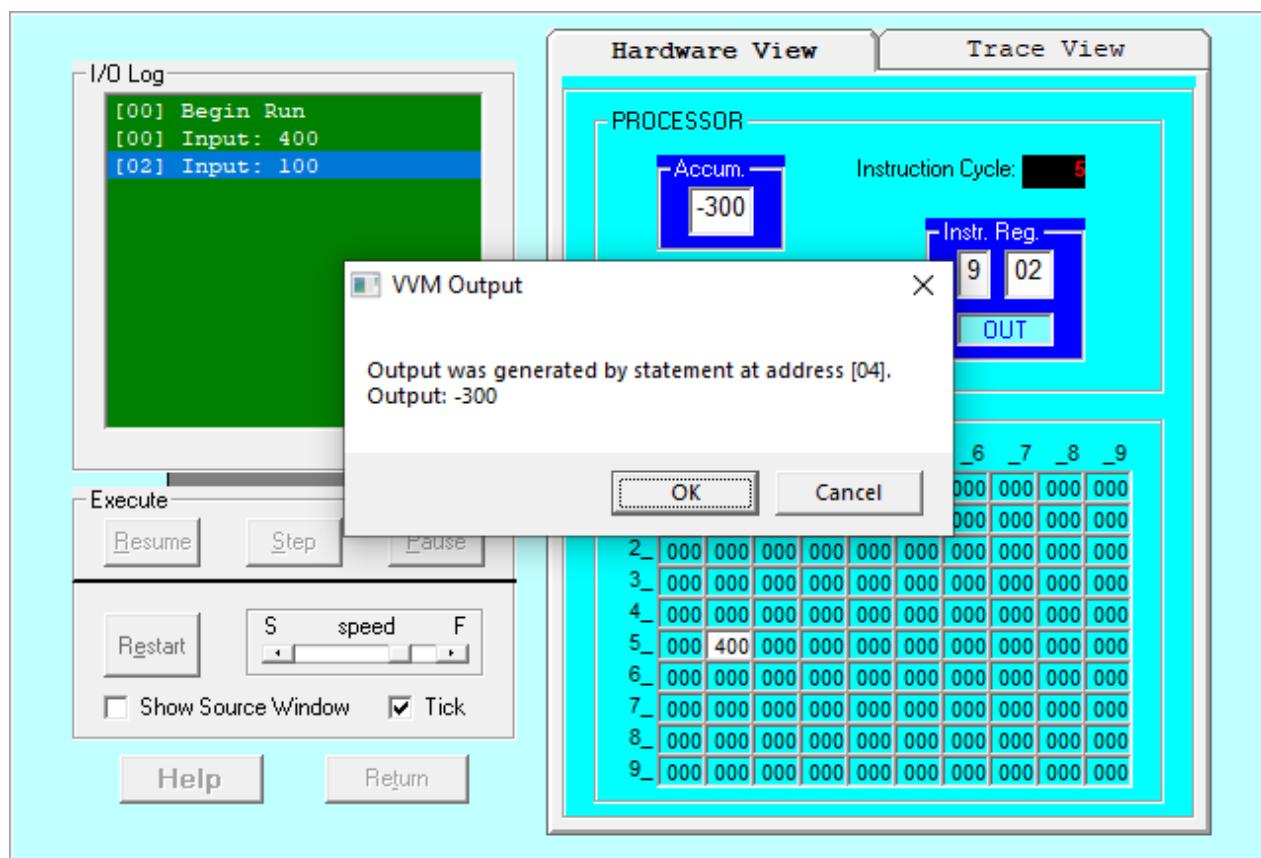
Write the following tasks in VVM Assembly Language program as well as VVM Machine Language format:

- Take two inputs from the user and subtract the first one from the other.

## Solution :

IN	901
STO 51	351
IN	901
SUB 51	251
OUT	902
HLT	000

## Output :

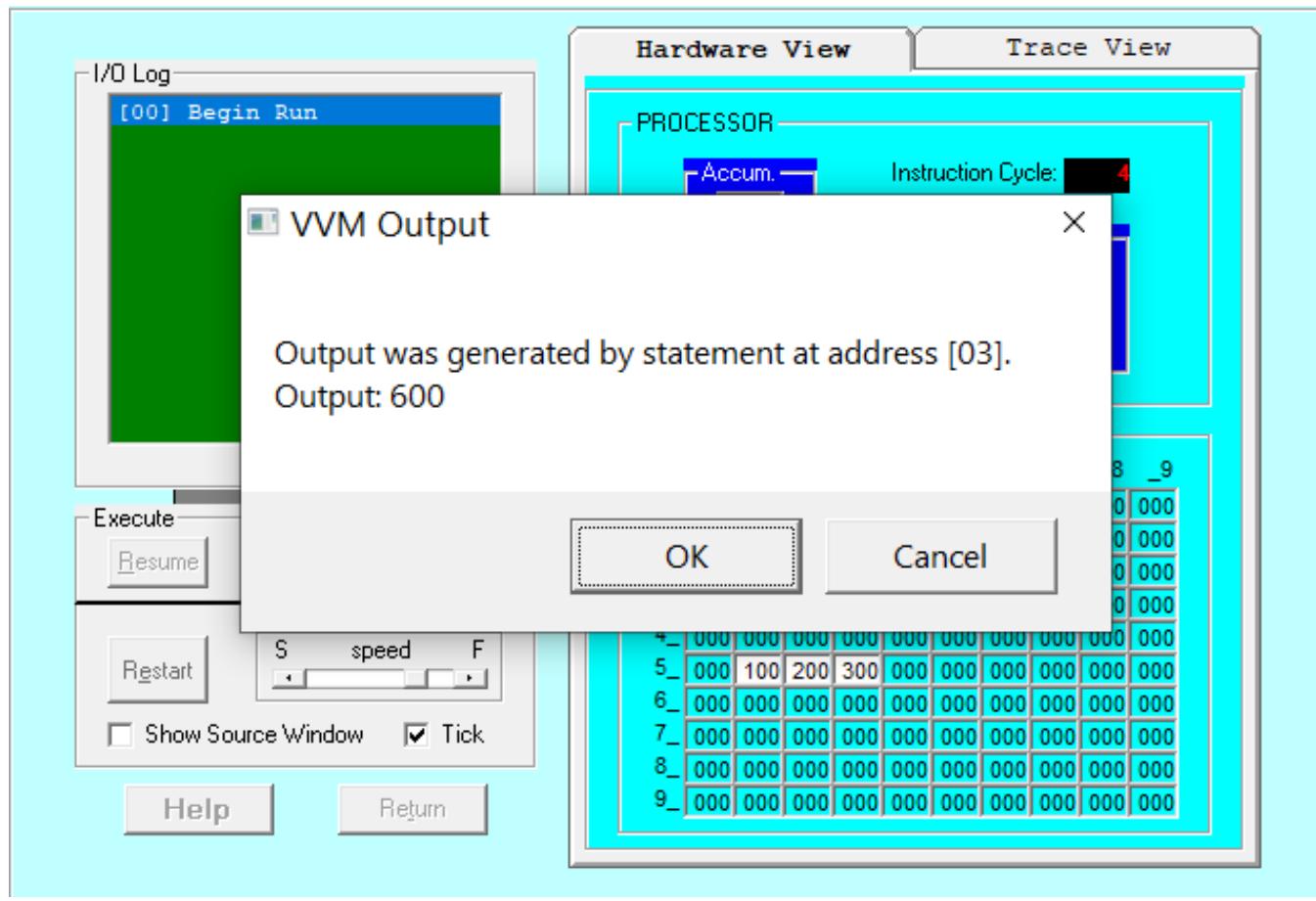


- Take three (any) hardcoded values and add them together.

## Solution :

LDA 51	551
ADD 52	152
ADD 53	153
OUT	902
HLT	000
*51	*51
DAT 100	100
*52	*52
DAT 200	200
*53	*53
DAT 300	300

## Output :

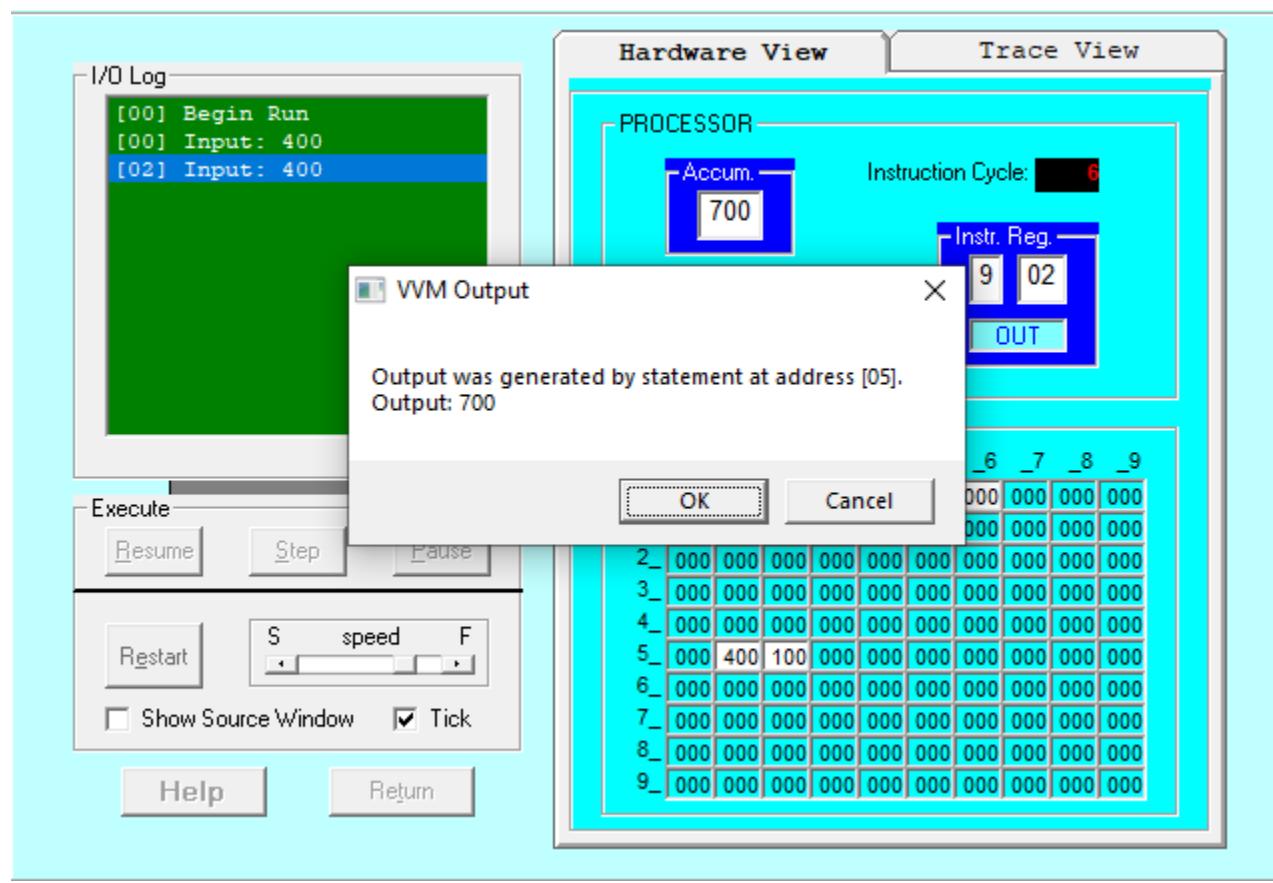


- Take two inputs from the user, add them together and then subtract 100 from it.

## Solution :

IN	901
STO 51	351
IN	901
ADD 51	151
SUB 52	252
OUT	902
HLT	000
*52	*52
DAT 100	100

## Output :

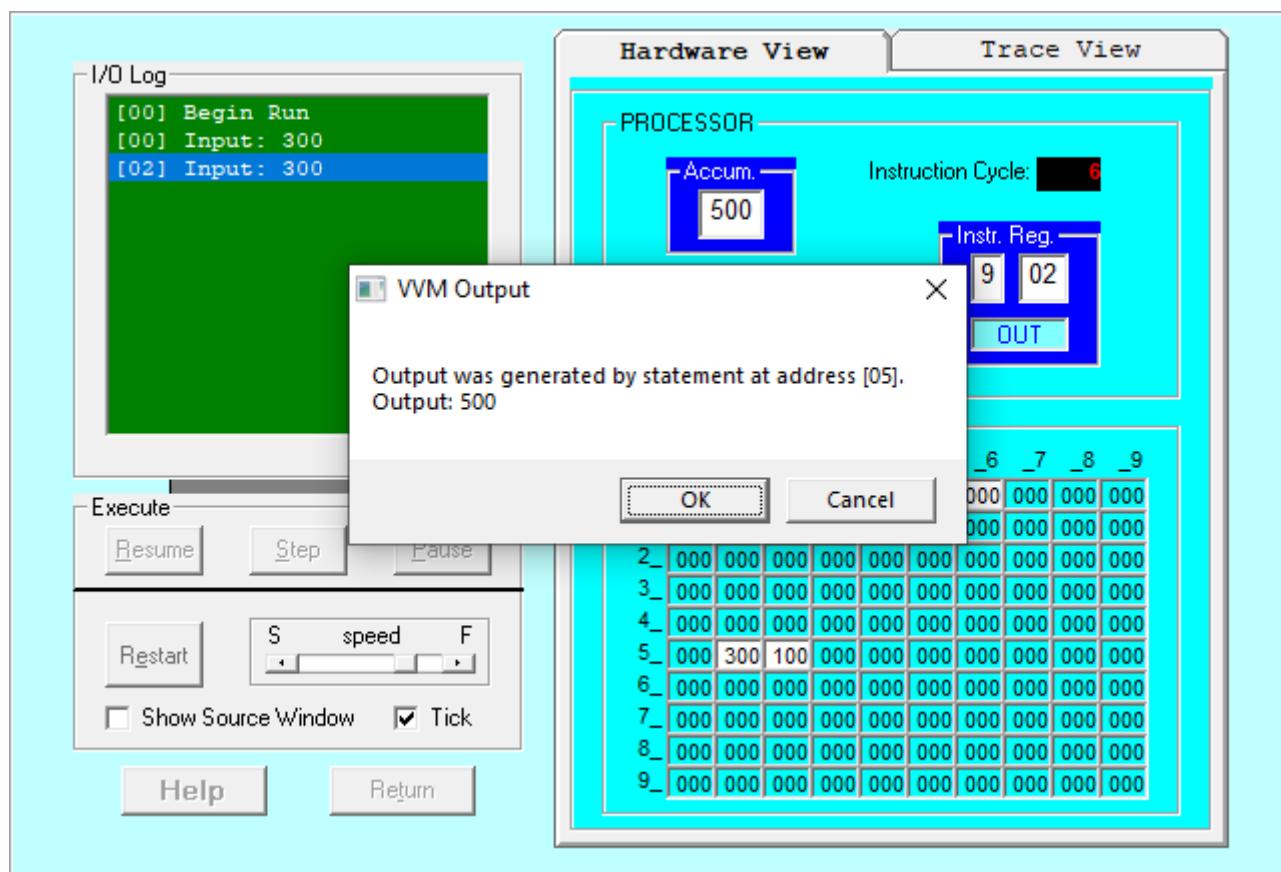


- Take three inputs from the user. Add the first two inputs together and then subtract the third input from the result.

## Solution :

IN	901
STO 51	351
IN	901
ADD 51	151
SUB 52	252
OUT	902
HLT	000
*52	*52
DAT 100	100

## Output :



- Take one input from the user, subtract 50 from it, and then double the result by adding the result to itself.

## Solution :

IN	901
SUB 51	251
STO 52	352
LDA 52	552
ADD 52	152
OUT	902
HLT	000
*51	*51
DAT 050	050

## Output :

