

# Bahria University, Karachi Campus



## LAB EXPERIMENT NO. 03

### LIST OF TASKS

TASK NO	OBJECTIVE
01	Write a program that takes user input and then print counting from 0 till this number.
02	Write a program will take an input number from the user as the limit and then calculate the sum of all numbers starting from 1 up to the specified limit.
03	Write a program that print the series of odd numbers in the range of 0-10.
04	Write a program that takes any hardcoded value input from user and then print the table of it .
05	Write a program that takes two numbers as an input and perform multiplication iterative addition.

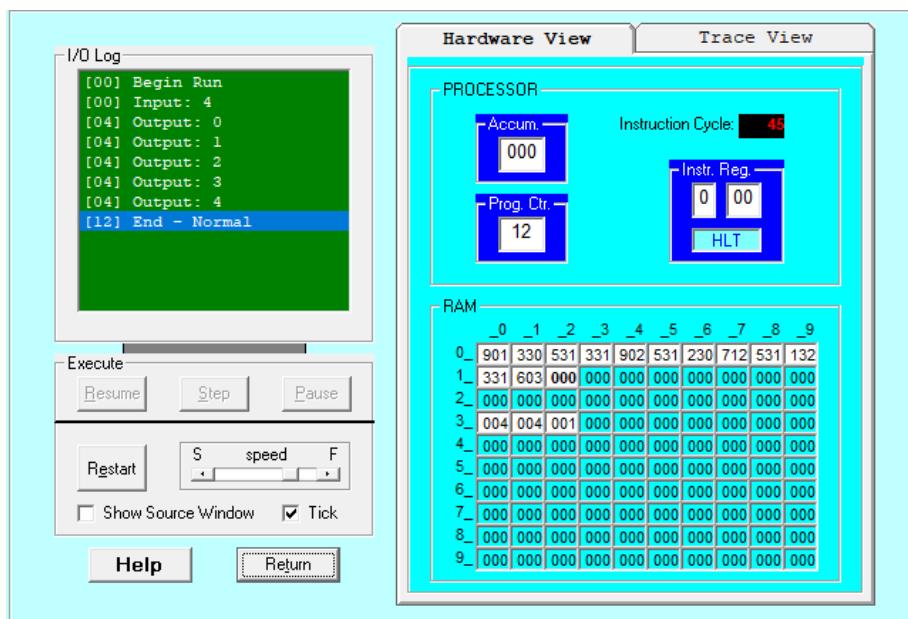
Submitted On:  
**Date: 26-Sep-2025**

**Task No. 01:**

Write a program that takes user input and then print counting from 0 till this number

**Solution:**

VVM Assembly Language	VVM Machine Language
IN	901
STO 30	330
LDA 31	531
STO 31	331
OUT	902
LDA 31	531
SUB 30	230
BRZ 12	712
LDA 31	531
ADD 32	132
STO 31	331
BR 03	603
HLT	000
*30	*30
DAT 000	000
*31	*31
Dat 000	000
*32	*32
DAT 001	001

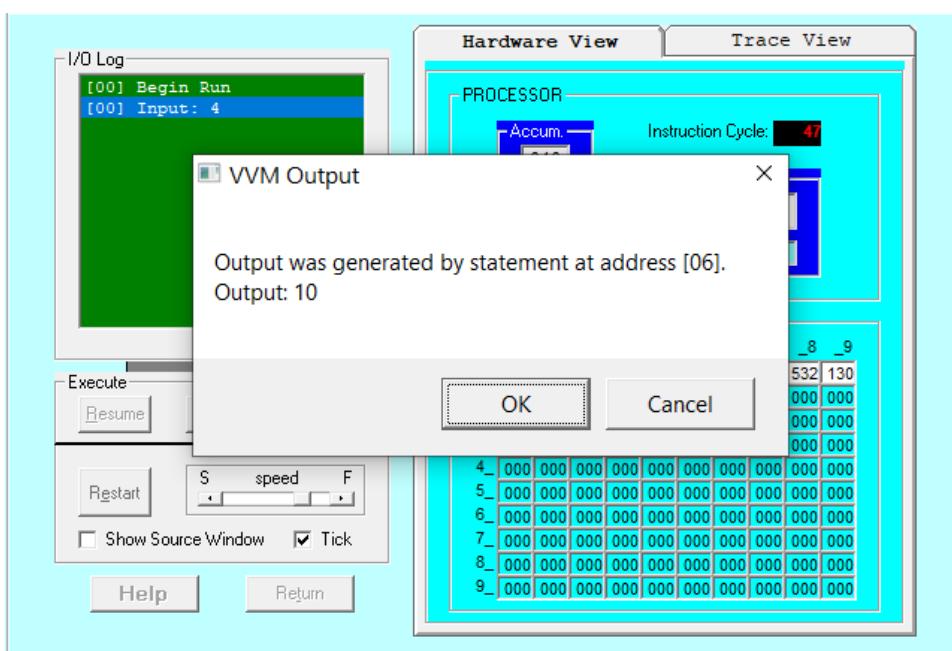
**Output:**

**Task No. 02:**

Write a program will take an input number from the user as the limit and then calculate the sum of all numbers starting from 1 up to the specified limit.

**Solution:**

VVM Assembly Language	VVM Machine Language
IN	901
STO 31	331
LDA 31	531
SUB 30	230
BRP 08	808
LDA 32	532
OUT	902
HLT	000
LDA 32	532
ADD 30	130
STO 32	332
LDA 30	530
ADD 33	133
STO 30	330
BR 02	602
*30	*30
DAT 001	001
*32	*32
DAT 000	000
*33	*33
DAT 001	001

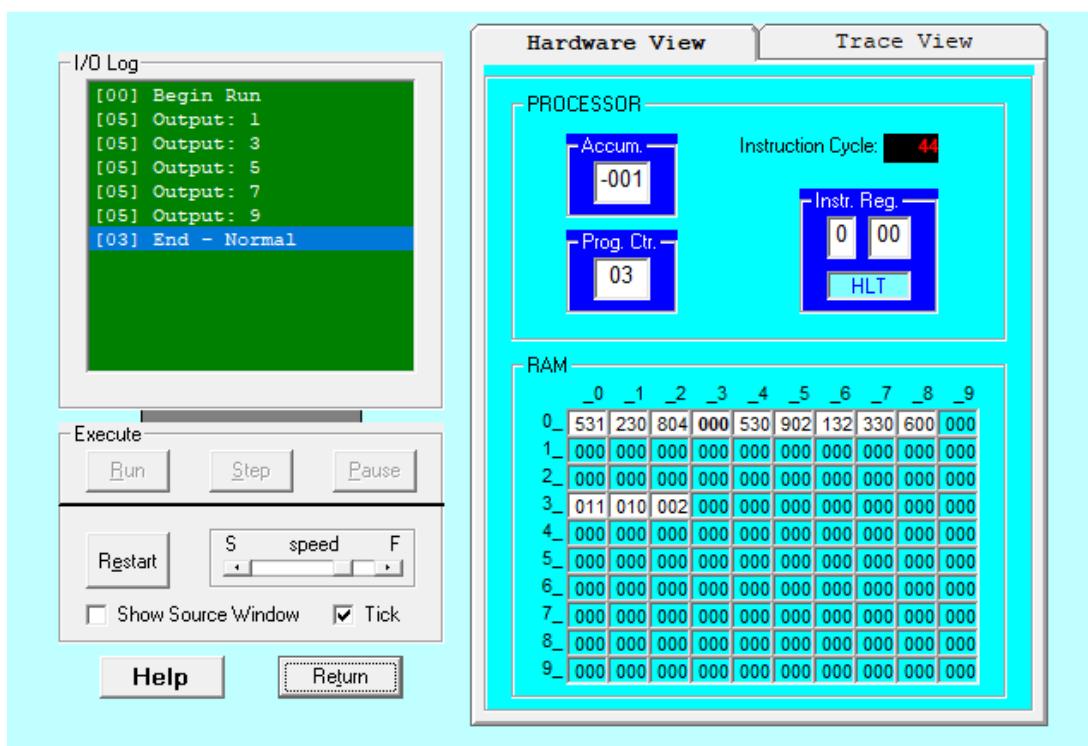
**Output:**

**Task No. 03:**

Write a program that print the series of odd numbers in the range of 0-10.

**Solution:**

VVM Assembly Language	VVM Machine Language
LDA 31	231
SUB 30	130
BRP 04	704
HLT	000
LDA 30	130
OUT	902
ADD 32	332
STO 30	330
BR 00	700
*30	*30
DAT 001	001
*31	*31
DAT 010	010
*32	*32
DAT 002	002

**Output:**

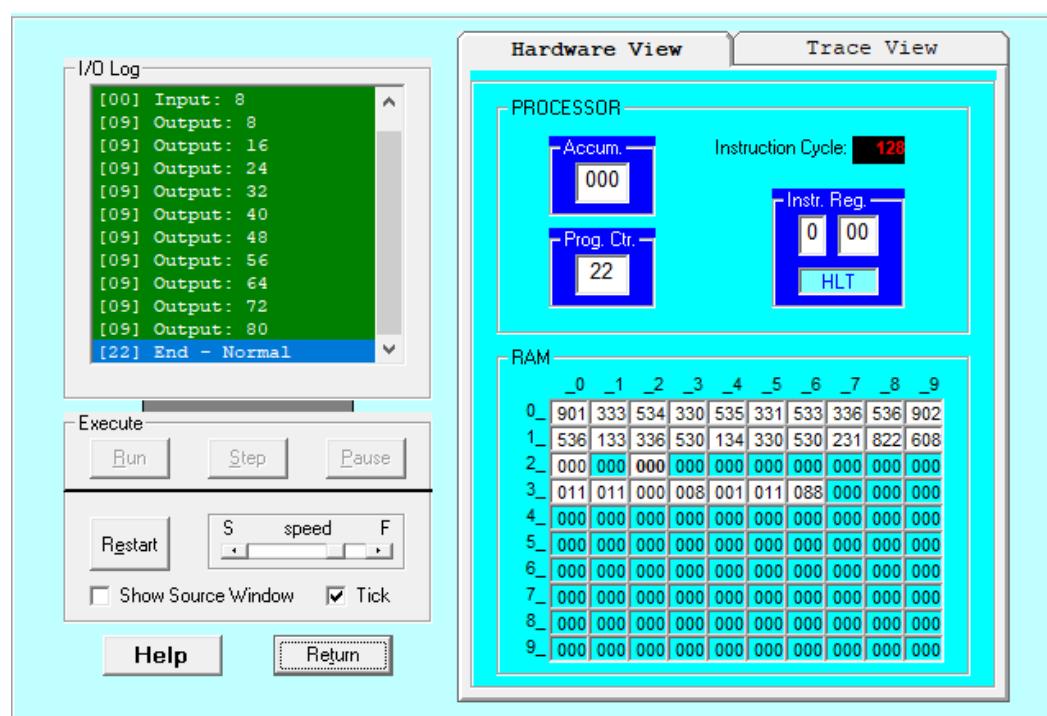
**Task No. 04:**

Write a program that takes any hardcoded value input from user and then print the table of it.

**Solution:**

<i>VVM Assembly Language</i>	<i>VVM Machine Language</i>
IN	901
STO 33	333
LDA 34	234
STO 30	330
LDA 35	235
STO 31	331
LDA 33	233
STO 36	336
LDA 36	236
OUT	902
LDA 36	236
ADD 33	133
STO 36	336
LDA 30	230
ADD 34	234
STO 30	330
LDA 30	230
STO 30	131
LDA 30	722
SUB 31	708
BRP 22	000
BR 08	*30
HLT	000
*30	*31
DAT 000	000
*31	*32
DAT 000	000
*32	*33
DAT 000	000
*33	*34
DAT 000	001
*34	*35
DAT 001	011
*35	*36
DAT 011	000
*36	000
DAT 000	

## Output:



**Task No. 05:**

Write a program that takes two numbers as an input and perform multiplication iterative addition.

**Solution :**

<b><i>VVM Assembly Language</i></b>	<b><i>VVM Machine Language</i></b>
IN	901
STO 30	330
IN	901
STO 31	331
LDA 30	230
SUB 32	332
BRP 10	710
LDA 34	234
OUT	902
HLT	234
LDA 34	131
ADD 31	334
STO 34	232
LDA 32	333
ADD 33	332
STO 32	704
BR 04	000
*30	*30
DAT 000	000
*31	*31
DAT 000	000
*32	*32
DAT 001	001
*33	*33
DAT 001	001
*34	*34
DAT 000	000

**Output:**