

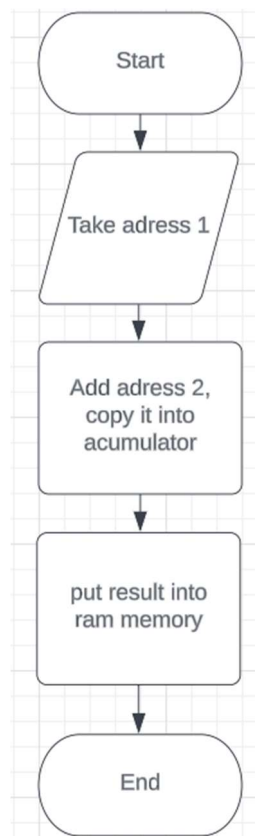
Johnny - Addition Program

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1. Task:

Create a program in Johnny simulator to add two numbers.

2. Flowchart:



3. Solution:

To solve this problem it takes only four instructions to combine:

TAKE: The program begins at address 000 and retrieves the first variable, which is stored at address 004, placing it into the accumulator.

ADD: Next, the program performs addition by taking another variable and adding it to the accumulator.

SAVE: The program stores the result in a specified RAM memory location, in this case, at address 009.

HLT: Finally, the program halts and sends a message indicating that it has completed its task.

4. Program:

004				
Adr	Hi	Lo	Asm	Opnd
000:	01	004	TAKE	004
001:	02	005	ADD	005
002:	04	009	SAVE	009
003:	10	000	HLT	000
004:	00	004		
005:	00	002		
006:	00	000		
007:	00	000		

004:	00	004	
005:	00	002	
006:	00	000	
007:	00	000	
008:	00	000	

| 00 004 | | | | |