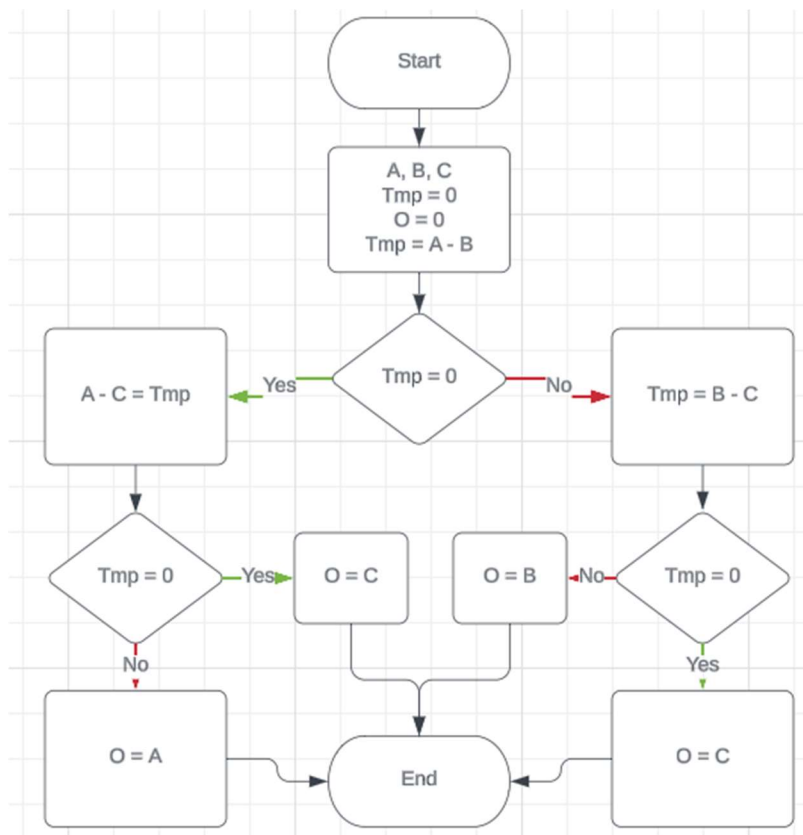# Johnny – Comparing Program
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1. **Task:**
   Create a program in Johnny to compare three numbers and select the biggest one.

2. **Flowchart:**

3. **Solution:**

   To determine the largest among three numbers A, B, and C, we employ a process using temporary variables TMP and O.

   1. Begin by comparing A and B:
      - Subtract B from A and store the result in TMP.
      - If TEMP = 0, B is greater than A. If TMP ≠ 0, A is greater than B.
   2. If A was greater:
      - Subtract C from A.
      - If the result = 0, C is the largest, store it in O.
      - If the result ≠ 0, A is the largest, store it in O.
   3. If B was greater (skip step 2):

- Repeat the process with B and C:
  - Subtract C from B.
  - If the result = 0, C is the largest, store it in O.
  - If the result ≠ 0, B is the largest, store it in O.

Program:

We will compare the values stored at addresses 036, 037, and 038, respectively

039				
Adr	Hi	Lo	Asm	Opnd
000:	09	039	NULL	039
001:	09	040	NULL	040
002:	01	036	TAKE	036
003:	03	037	SUB	037
004:	04	039	SAVE	039
005:	06	039	TST	039
006:	05	018	JMP	018
007:	01	037	TAKE	037

036:	00	004
037:	00	005
038:	00	002
039:	00	000
040:	00	005

00 000

we have our output stored at address 033, and we see that the number 5 is the largest

040				
Adr	Hi	Lo	Asm	Opnd
010:	06	039	TST	039
011:	05	015	JMP	015
012:	01	038	TAKE	038
013:	04	040	SAVE	040
014:	10	000	HLT	000
015:	01	037	TAKE	037
016:	04	040	SAVE	040
017:	10	000	HLT	000

037:	00	005
038:	00	002
039:	00	003
040:	00	005
041:	00	000

00 005