

Global and Extern Declarations:

#global abc: Declares a global label named "abc".

extern bcd: Declares an external label named "bcd".

Data Section:

section data: Declares the start of the "data" section.

Y dd 35,23,48,2,9,9: Defines an array labeled "Y" with double-word (4 bytes) elements initialized with the values 35, 23, 48, 2, 9, 9.

sum dd 7,0,10: Defines an array labeled "sum" with double-word elements initialized with the values 7, 0, 10.

Text Section:

section text: Declares the start of the "text" section.

Instructions:

MVI I, 0: Moves the immediate value 0 into register I.

MVI C, 0: Moves the immediate value 0 into register C.

MVI B, Y: Moves the address of array Y into register B.

Label1:: Marks the beginning of a loop labeled "Label1".

LOADI: Loads the value at the memory address pointed by register I into register A.

INC B: Increments the value stored in register B.

ADD C: Adds the value in register C to the value in register A.

CMP B, 10: Compares the value in register B with the immediate value 10.

JE Label2: Jumps to "Label2" if the comparison result is equal.

ADDI 4: Adds the immediate value 4 to the value in register A.

JMP Label1: Unconditional jump back to "Label1".

Label2:: Marks the end of the loop.

MOV C, A: Moves the value in register A to register C.

STORE sum: Stores the value in register C at the memory location pointed by the "sum" array.

STOP: Stops the program execution.

The program performs a loop where it adds the elements of array Y to a counter (register C) until the value in register B (used as an index) reaches 10. The final sum is stored in the "sum" array, and the program stops.