Arithmetic instructions in 8085 microprocessor

Arithmetic Instructions are the instructions which perform basic arithmetic operations such as addition, subtraction and a few more. In 8085 microprocessor, the destination operand is generally the accumulator. In 8085 microprocessor, the destination operand is generally the accumulator.

Following is the table showing the list of arithmetic instructions:

Opcode	Operand	Explanation	Example
ADD	R	A = A + R	ADD B
ADD	M	A = A + Mc	ADD 2050
ADI	8-bit data	A = A + 8-bit data	ADD 50
ADC	R	A = A + R + prev. carry	ADC B
ADC	M	A = A + Mc + prev. carry	ADC 2050
ACI	8-bit data	A = A + 8-bit data + prev. carry	ACI 50
SUB	R	A = A − R	SUB B
SUB	M	A = A − Mc	SUB 2050
SUI	8-bit data	A = A − 8-bit data	SUI 50
SBB	R	A = A − R − prev. carry	SBB B
SBB	M	A = A − Mc -prev. carry	SBB 2050
SBI	8-bit data	A = A − 8-bit data − prev. carry	SBI 50
INR	R	R = R + 1	INR B
INR	M	M = Mc + 1	INR 2050
INX	r.p.	r.p. = r.p. + 1	INX H
DCR	R	R = R − 1	DCR B
DCR	M	M = Mc − 1	DCR 2050
DCX	r.p.	r.p. = r.p. − 1	DCX H

DAD   r.p.   HL = HL + r.p. DAD H

In the table,

R stands for register

M stands for memory

Mc stands for memory contents

r.p. stands for register pair