Working of NAND Gate :   A NAND Gate is a logic
Gate that produces a low
Output (0) Only if all its inputs are true, and
high Output (1) otherwise. Hence the NAND Gate
is the inverse of an AND Gate, and its Circuit
is produced by Connecting AND Gate to a NOT
Gate.

NAND Gate may have any Number of input
problems but One Output.

NAND Gate are also known as Universal Gate
which means they are type of logic Gate.

Circuit Diagram :

$$Y = \overline{A \cdot B} = \overline{A} + \overline{B}$$
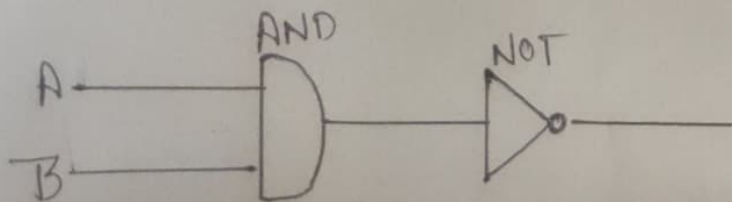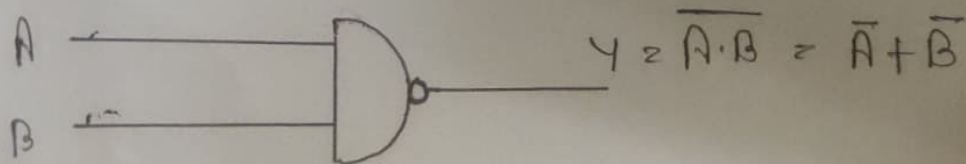
Nat Gate Works as an Inverter

By Using AND Gate and NOT Gate We Can
Implement NAND Gate

| A | B | $\bar{A}$ | $\bar{B}$ | Y |
|---|---|---|---|---|
| 0 | 0 | 1 | 1 | 1 |
| 0 | 1 | 1 | 0 | 1 |
| 1 | 0 | 0 | 1 | 1 |
| 1 | 1 | 0 | 0 | 0 |

Nat Gate Works as an Inverter