Introduction to Flowcharts   # L1.4

- there is initialization step, then we keep repeating
- step wise procedure in formal way
  ↳ Flowcharts and Pseudocode

- symbols in flowchart

  ▭ Process/Activity ⇒ set of options that change the value of data (variables)

  ⟶ Flowline/Arrow ⇒ shows the order of execution of program steps

  ◇ Decision ⇒ determines which path the program will take

  ⬭ Terminal ⇒ indicates 'start' or 'end'.

ex, Flowchart for counting cards

Start

↓

Count = 0

↓

More cards in Pile 1? → No (False) → End

↓ Yes (True)

Pick a card X from Pile 1

↓

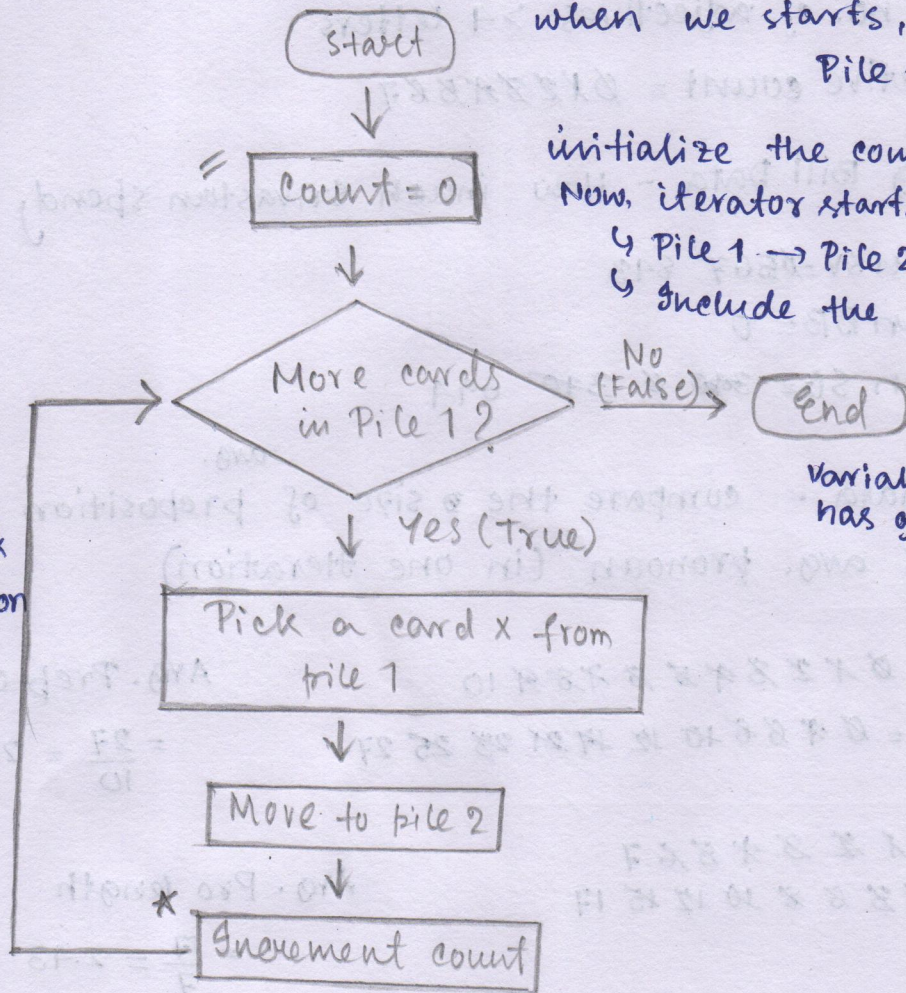Move to Pile 2

↓

Increment count → go back to iteration

when we starts, cards are in a pile, Pile 1

initialize the count to 0
Now, iterator starts.
↳ Pile 1 → Pile 2
↳ Include the value of variables.

Variable count has got its value.

---

ex, Flowchart for sum of maths marks.

Sum = 0

Add count X's Maths score to Sum

Rest remains the same
⇒ Accumulate the Sum

-. Generic flowchart for iteration

```
                    ┌─────────┐
                    │  start  │
                    └────┬────┘
                         │
                         ▼
                  ┌──────────────┐
                  │  Initialize  │
                  └──────┬───────┘
                         │
                         ▼
                      ╱────────╲         No (False)
            ┌───────▶ unvisited  ───────────────▶  ( End )
            │        ╲ element? ╱
            │          ╲──────╱
            │             │ Yes (True)
            │             ▼
            │   ┌──────────────────────────┐
            │   │ Pick an unvisited element │
            │   └────────────┬─────────────┘
            │                │
            │                ▼
            │      ┌──────────────────┐
            │      │ Mark as visited  │
            │      └────────┬─────────┘
            │               │
            │               ▼
            │      ┌──────────────────┐
            └──────│ Update Variable  │
                   └──────────────────┘
```