* Point Estimate

Population → Sampling → Sample → Statistics $\bar{x}$ ← inference → Population
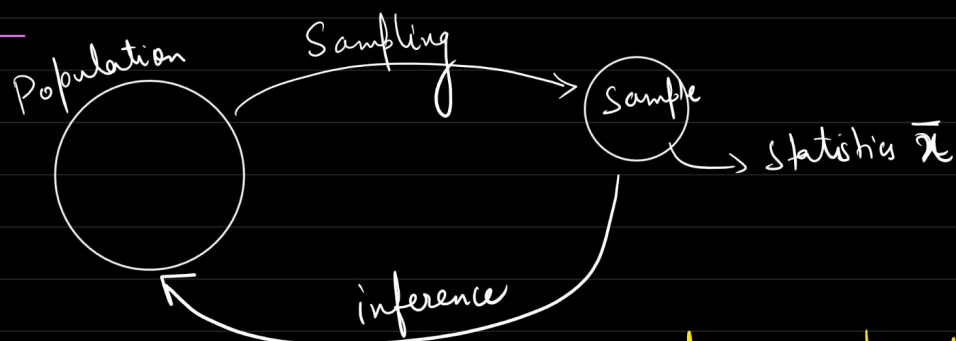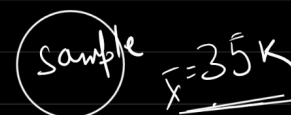
Estimate → A specified observed value used to estimate an unknown population parameter using sample.

① Point estimate → A point estimate is a single value that is used to estimate the true value of a population parameter.

✓ Avg salary of IT employee

Population IT

Sample $\bar{x} = 35K$

$\mu \xleftarrow{\text{true for population as well.}} \bar{X}$

* Avg Salary of sample is being used to estimate the average salary of population
→ mean, variance.

② Interval estimate —

Range of values used to estimate the unknown population paramete
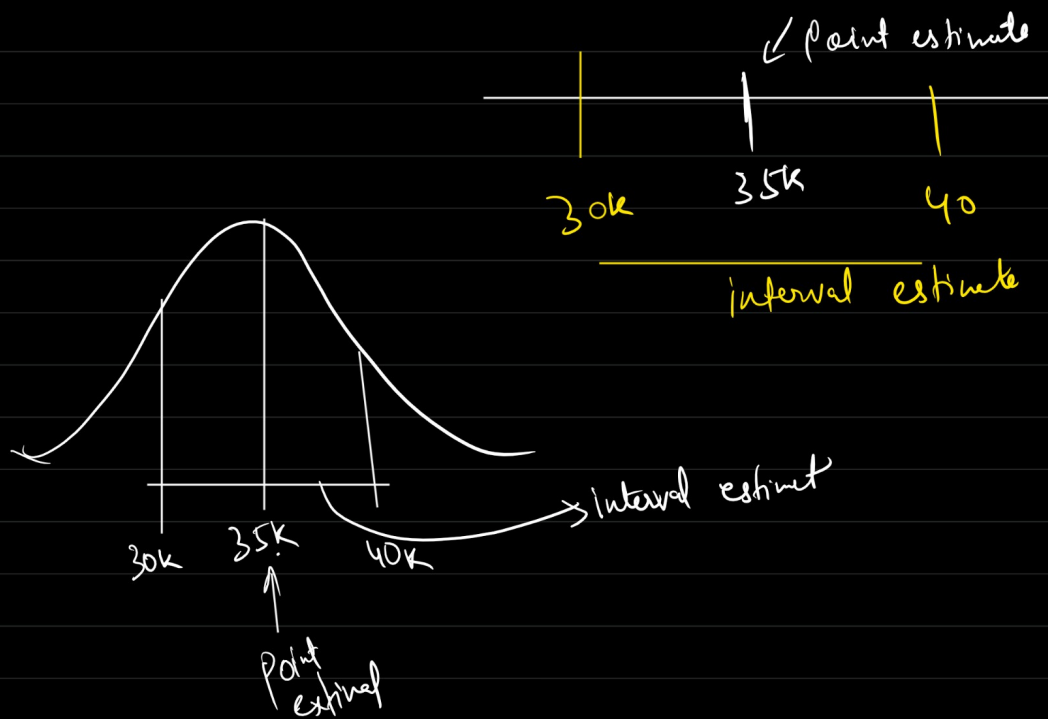→ avoiding uncertainity / more confident

Population $\xrightarrow{\hspace{3cm}}$ Sample → 30-40K.

Exam hall

your friend

you
5 8 (Point)

45

40 — 60 (interval)

← Point estimate

30k   35K   40

interval estimate

30k   35K   40K → Interval estimat

Point
estimat

Summary ― When you want to estimate statistics about population using sample → one point → Point estimate
→ interval → interval estimate