

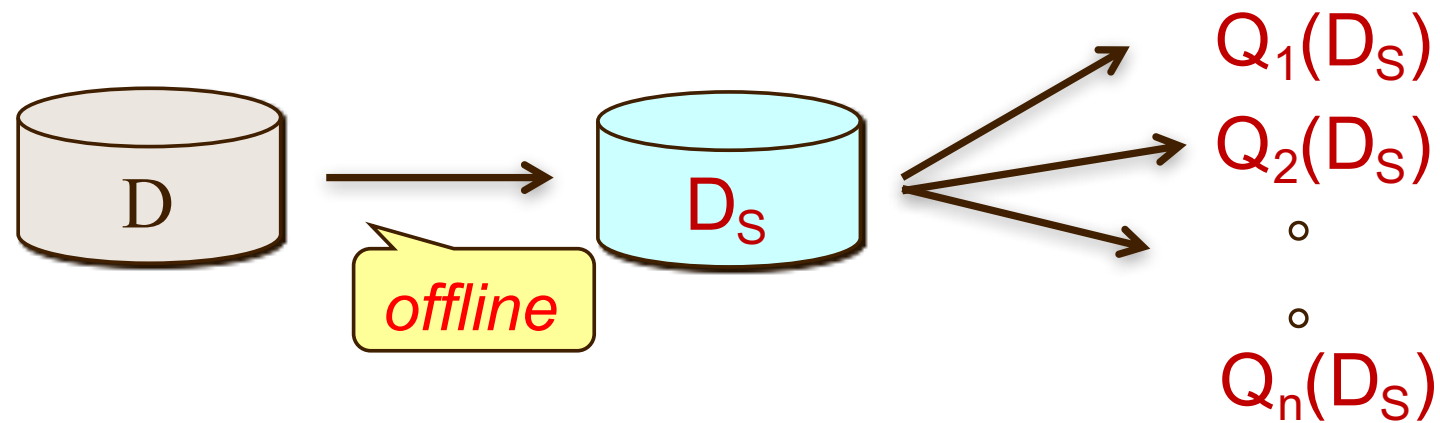
Bounded Approximation

— for unbounded queries

Approximate Query Processing

► Synopsis-based approximation

- for any database D compute an *one-size-fit-all* synopsis D_s
- for all queries Q posted on D , compute $Q(D_s)$ as the answer



- aggregate query only
- assumption: query load or predicates are known in advance
- *probabilistic accuracy bound: can't trust any answer in $Q(D_s)$*

► Online sampling

- no (or very bad probabilistic) accuracy bound (aggregate queries)