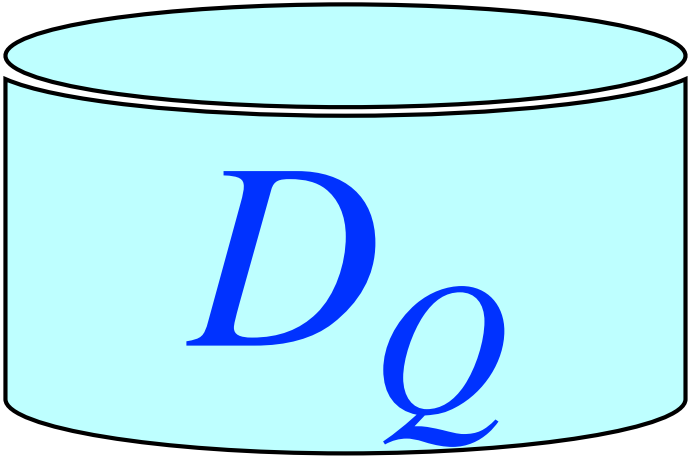
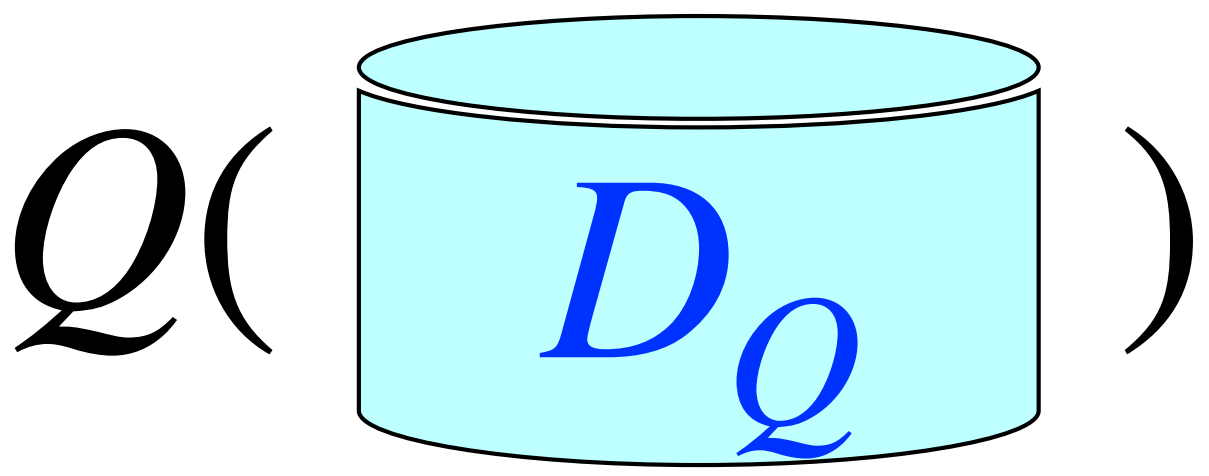
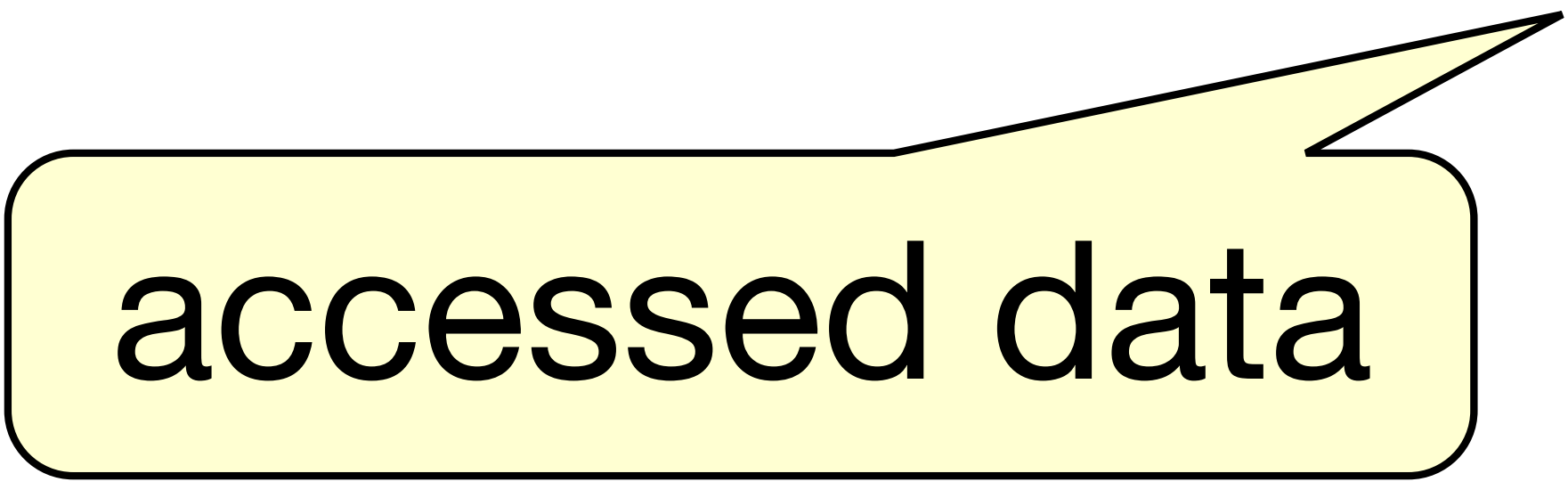
Bounded Query Processing

6


Q(
D
)


D_Q


$q($
D_Q
$)$


accessed data

- D_Q is **bounded** (independent of D)
- the **bound** is known before execution

determined by **available resources**

- $Q(D)$ can be **restored** by computing $Q(D_Q)$

Query evaluation with bounded cost

Bounded Query Processing

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Query evaluation with bounded cost

Outline: resource-bounded query evaluation

I. Bounded Query Processing on DBMS

- Theory: bounded evaluation
- Framework: bounded approximation
- System: BEAS

II. Bounded Query Processing on Key-value Stores

- a data model for bounded evaluation on key-value stores