Membership Query

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Synonyms

[Equality query](#); [Equality selection](#)

Definition

Consider a relation R whose schema contains some attribute A taking values over a domain D . A *membership query* retrieves all tuples in R with $A = x$ ($x \in D$).

Key Points

A membership query effectively checks membership in a set (relation). As such, it can be implemented using either a hash-based index

(built on the attribute(s) involved in the query) or a B+-tree. If a hashing scheme is used, each indexed value is placed on an appropriate hash bucket. Then all records that satisfy $A = x$ are located on the bucket responsible for value x . If A is a numeric attribute (and can thus be indexed using an order-preserving access method like a B+-tree), the membership query is a special case of a range query where the range interval $[low, high]$ is reduced to a single value ($low = high = x$).

Cross-References

- [Access Methods](#)
- [B+-Tree](#)
- [Hashing](#)