

Criteria	Embedding (Denormalization)	Referencing (Normalization)
Data Structure	Related data is stored within the primary document; e.g., all comments inside a Post document.	Related data is stored in separate collections , linked by _id values; e.g., user_id in a separate posts collection.
Read Performance	Faster Reads (Single Query). Excellent performance for data retrieved together (no joins needed).	Slower Reads (Multiple Queries/\$lookup joins). Requires traversing multiple collections.
Write Performance	Slower Writes on large documents, as the whole document must be re-written.	Faster Writes on individual, small documents.
Data Consistency	Low Consistency Changes to embedded data; e.g., a username, must be updated everywhere it's embedded.	High Consistency Data is updated in one place only.
Data Volume Limit	Bound by 16MB Document Size. Unsuitable for data that grows indefinitely (unbounded arrays).	No Limit. Ideal for large, unbounded collections; e.g., millions of posts or comments.