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| **Temporary Table** | **View** | **Materialized View** | **CTE** |
| A table that exists temporarily within a session. | A virtual table created from a query; does not store data but reflects the underlying tables. | A physical snapshot of the result of a query stored in the database, requiring manual or scheduled refresh. | A temporary result set defined within a query and used only during its execution. |
| Used to store intermediate results that need to be accessed multiple times within the session. | Simplifies complex queries or provides restricted views of data for security or convenience. | Improves performance by precomputing and storing results of expensive or aggregated queries. | Helps break down complex queries into manageable parts; can also handle recursive queries. |
| Automatically deleted at the end of the session unless explicitly dropped. | Always reflects the latest state of the underlying data as it does not store results. | Does not reflect real-time changes in underlying data until refreshed. | Does not persist beyond the query and has no physical storage. |