# **Difference between Row oriented and column oriented database**

There are two types of data storage database one is row oriented database and another one is column oriented database.

Row oriented database is traditional database like Oracle , MySql and etc. It stores data table by row and common method of storing a table is to serialize each row of data. Row-based systems are designed to efficiently return data for an entire row, or record.

On the other hand, column based database are "No SQL" database such as HBase and Cassandra. Column oriented databases do not support "traditional" transactional secondary indices. It is the responsibility of the user to maintain "inverted index"

| **Row Oriented Database** | **Column Oriented Database** |
| --- | --- |
| It stores data table by row. | It stores data table by column. |
| Data accessing happens row by row | Data accessing happens column by column |
| Storage size optimization limited due to reduced ability of data compression in row based systems | Column based systems provide better storage size optimization capabilities. |
| It takes longer time than column oriented database because it requires multiple disk read | It is faster than row oriented database |
| Best suited for OLTP | Best suited for OLAP |