

## INDEX

→ What is index ?

Index is a pointer to a location of data in a table just like an index in a book

→ Use of Index : The purpose of Index is to make SQL queries run faster and trace the information faster.

→ Syntax for creating Index

CREATE INDEX <INDEX NAME> ON <TABLE NAME>  
(<COLUMN NAME>);

\* We can create index on 16 columns in old version and 32 column in latest version.

→ Syntax to check all indexes :

SELECT \* FROM USER\_INDEXES ;

→ Syntax to check index on particular table ,

SELECT \* FROM USER\_INDEXES WHERE TABLE\_NAME  
= 'EMP' ; { NAME OF THE TABLE NAME }

→ Syntax for dropping the index

DROP INDEX <INDEX NAME>;

→ Creating index on multiple columns ;

CREATE INDEX <INDEX\_NAME> ON <TABLE NAME>  
(COLUMN NAME 1, COLUMN NAME 2, .....);

→ SELECT COUNT (\*) FROM ALL\_INDEXES ;

→ SELECT COUNT (\*) FROM USER\_INDEXES ;

→ SELECT COUNT (\*) FROM USER\_INDEXES WHERE  
TABLE\_NAME = 'EMP' ;

→ Types of indexes

- 1) B-Tree Indexes {Default Index in Oracle}
- 2) Bitmap Indexes
- 3) Partitioned Indexes
- 4) Function based Indexes
- 5) Domain Indexes.

→ What is the disadvantage of Index

- 1) Indexes take additional disk space.
- 2) Indexes slow-down INSERT, UPDATE and DELETE but it will speed up UPDATE only when the 'WHERE' condition is used.

→ What is the Difference between clustered Index and Non-clustered index

	CLUSTERED INDEX	NON-CLUSTERED INDEX
1)	cluster index is FASTER.	1) Non-clustered index is SLOWER.
2)	clustered index requires less memory for operation.	2) Non-clustered index requires more memory for operation.
3)	A table can have only one clustered index.	3) A table can have multiple Non-clustered index.
4)	In clustered Index, Index is the main data.	4) In non-clustered index, index is the copy of data.