

# non-Clustered Index

in-disk b-tree data structure consist of 3 levels :

1- root node : contain  
- non-clustered index keys  
- with address of pages of other lower index pages

2- intermediate nodes : contain  
- non-clustered index keys  
- with address of pages of other lower index pages

3- leaf nodes : contain  
- pointers to actual data

Nonclustered indexes have a structure separate from the data rows or actual table

Indexes Key Is Sorted in Indexes Pages in Root or intermediate nodes

can used with heap table or clustered table

pointers :

in case clustered table : clustered index keys

in case heap table :  
ROWID (File + Page + row )

table can contain many non-clustered indexes