# DATABASE TECHNOLOGY WEEK 14 ASSIGNMENT

# 1 .Explain the Logical Structure of the Database.

* Oracle database contains the logical space for the data in the database
* The database logically separated into two more table spaces
* Logical units contain **Table Space, Segment, Extent, Oracle Data block Tablespaces**:
* It arranges the data in logically that are available in physical storage.
* It is associated with one and only databse. Single datafile that is used to store data from the dependent tablespace
* Tablespace can store objects of database like indexes view, sequences
* Database contains the logical storage units called tablespaces
* It relates the logical structures or datafile
* Tablespace contains more the one segments

# Data Blocks:

* Data are stored in data block
* Each data blocks contains the particular number of bytes in physical space on the disk
* Creation of data block size determined for each tablespace
* It the smallest logical unit storage in databse

# EXTENTS:

* Extent is the next level of logical database space.
* It is the logically continuous data blocks is allotted for storing the specific type information

# SEGMENTS :

* Collection of extents allotted for the particular database object (TABLE)
* Segment is next level of logical database storage above an Extent
* Each segment is associated with one and only tablespace.
* Extents of segment are stored in same tablespace
* Segment is collection extents associated with particular logical structure

# Data segments:

* All table data are stored in the extents of its data segments
* Non clustered And Nonindexed organized table has a segments
* In partition table each partition has a data segment

# Index segments

* Index contains the index segments that stores all of the data
* For partition index and each partition has the index segments

# UNDO segments:

* One UNDO table space is created for each database instance.
* This contains many number of undo segments to temporarily store undo data information.
* This undo segments is used to generate the read consistent database information during database recovery, and rollback uncommitted transactions for user .

# Temporary Segment:

* It is created by the oracle database when SQL query demand the temporary area to finish the execution
* After the completion of the execution the temporary segments extents is returned to the instance for the future need
* A database is containing more than one table spaces
* A Tablespace is composed of one or more than one datafile. Table space includes segments
* A Segment is containing the more than one extent. Segments resides in a table space but it contains data in data file in the tablespace
* An Extent is continuing set of blocks in disk .one table space is having a single file with in the table space.
* A Database contain smallest unit of block.
* Tablespace and Datafiles