oracle download

after downloading,extract the zip file and store it in folder.

oracle 21c installation ,youtube link

http://www.rebellionrider.com/how-to-install-oracle-database-21c/

install the file.

to login first time

/ as sysdba

alter session set "\_oracle\_script"=true;

CREATE USER ORASEP IDENTIFIED BY "tiger"

TEMPORARY TABLESPACE TEMP PROFILE DEFAULT ACCOUNT UNLOCK;

grant dba to ORASEP;

connect ORASEP/tiger;

DDL

Data Definition language DBA,DB DESIGNER

CREATE

ALTER

DROP

TRUNCATE

Data types

NUMBER (5) - 0 TO 99999

NUMBER (4,2) - 0 to 99.99

CHAR - CHAR TYPE OF data

VARCHAR,VARCHAR2 - variable char type

DATE - dd-mon-yy 19-sep-23

BOOLEAN - TRUE or FALSE

LOB

LARGE OBJECTS

CLOB

BFILE

int 2 -32768 to +32767

CREATE command used to create data base objects

objects

users

tables

views

synonyms

sequence

creating tables

syntax

create table <tname> ( col1 datatype(size) , col2 datatype(size) , ....);

NOTE: 1. No space is allowed within the column name

2. Only \_ (underscore) ,digits are allowed

3. column name must start with alphabet,underscore not with digit

st no X marks1 1marks X

stu\_name \_name

student

student number,name,class

ACTUAL COL NAME DATATYPE SIZE

student number STNO,SNO,STU\_NO NUMBER 6

NAME STU\_NAME,SNAME CHAR 15

CLASS CLASS CHAR 10

EX:

CREATE TABLE STU (SNO NUMBER(6),SNAME CHAR(15),CLASS CHAR(10) );

Table created

To see the structure of the Table

DESCRIBE <tname>;

ex:

describe student;

NUMBER(7,2)

99999.99

create a train table with train number,name ,date of journey

col datatype size

train\_no,tno,trno number 5

trainname,tr\_name,tname char,varchar,varchar2 15

date\_of\_journey,doj date

CREATE TABLE train(train\_no number(6),tname varchar2(15), doj date);

to list the tables available in user

select \* from tab;

SQL> desc stu;

ALTER

To modify/add/DROPPING/RENAMING column(s) from the table

alter table <tname> ADD / MODIFY/DROP ( col1 datatype(size) , ....);

To add student dob to the table

alter table stu add(dob date);

Name Null? Type

----------------------------------------- -------- -------------

SNO NUMBER(5)

SNAME CHAR(15)

CLASS CHAR(10)

DOB DATE

to drop a particular column

alter table stu drop column class;

To modify the column data type of SNAME

alter table stu modify (sname varchar2(12));

TO modify the name of the column in a table(rename)

ALTER TABLE stu RENAME COLUMN sname TO stuNAME;

to modify the sno toSTNO of stu table

alter table stu rename column sno to stno;

\*\*\*DROP command \*\*\*

To delete the database object PERMANANTLY

syntax:

DROP table <name>;

ex: drop table stu;

Truncate

to delete the rows of the table,but not the structure of the table

truncate table <name>

ex:

truncate table stu;

Difference b/w DDL and DML??

Why DDL commands cant undo??

Integrity Constraints

Validation of record(s) before entering into the database(table).

PRIMARY KEY:

Not allows duplicates+ null values \*\* Only one per table

It was the identity of the table row

ex: sno,train\_no,acc\_no,aadhar\_no

NOT NULL:

NOT ALLOWS NULL values,but allows duplicate

ex: SNAME,TRAIN\_NAME

null means EMPTY,not even 0 , ' '

UNIQUE: not allows duplicates but allows null

ex: insta id,fb id

CHECK:

to write our own validation.

ex: marks between 0 to 100

course ECE,EEE,CSE,IT

gender male,female

BankAc sb,ca,LA

check (col <cond>)

Foreign key

to represent relation ship between 2 or more tables

ex: dept deptno(pk)

|

EMP DEPTNO(fk)

syntax

col references table(col) on delete cascade

"on delete cascade"

option will remove A RECORD in parent table,automatically the corresponding child records will get deleted.

ex: EMP( ...., deptno number(4) references dept(deptno)

syntax of creating table with constraints

create table <tname> ( col1 datatype(size) <constraint> , col2 datatype(size) <constraint>, ....);

ex: CREATE TABLE STU (SNO NUMBER(5) primary key,

SNAME CHAR(15) not null,

CLASS CHAR(10) check (class in('EEE','ECE','CSE','CIVIL')));

alter table stu add (mobile NUMBER(10) check( MOBILE>6000000000));

insert into stu values(106,'abc','ECE',6789012345);

INSERT INTO STU VALUES(103,'ABC','ece',6789012345);

unique constraint (SCOTT.SYS\_C005212) violated

>>ADDING 2 CONSTRAINTS TO A table

ALTER TABLE STU ADD(EMAIL VARCHAR2(16) NOT NULL UNIQUE);

Truncate

TRUNCATE TABLE statement is used to remove all records from a table in Oracle. It performs the same function as a DELETE statement without a WHERE clause.

syntax

truncate table <name>;

drop vs truncate

In SQL, the DROP command is used to remove the whole database or table indexes, data, and more. Whereas the TRUNCATE command is used to remove all the rows from the table.

student parent

-> exam child

exam

sno number reference from Student table

m1 number

m2 number

m3 number

create table exam( sno number(5) references stu(sno),

m1 number(3) check (m1 between 0 and 100),

m2 number(3) check (m2 between 0 and 100),

m3 number(3) check (m3 between 0 and 100));

CREATE table ATTEND(SNO NUMBER(5) REFERENCES STU(SNO),

NODAYS NUMBER(3),PRESENT NUMBER(3));

INSERT INTO EXAM VALUES(10,55,55,66);

integrity constraint (SCOTT.SYS\_C005216) violated - parent key not found