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/* How to create a basic table */  
  
create table study  
(  
    empid number,  
    fname varchar(20)  
);  
  
/* how to describe the structure of a table */  
  
desc study;  
  
/* how to add a column */  
  
alter table study  
    add lname varchar2(20);  
  
desc study;  
  
/* how to rename a column */  
  
alter table study  
    rename column lname to last_name;  
  
desc study;  
  
/* how to drop a column */  
  
alter table study  
    drop column last_name;  
  
desc study;  
  
/* how to change table name */  
  
alter table study  
    rename to studies;  
  
desc studies;  
alter table studies  
    rename to study;  
desc study;  
  
/* how to add a not null column*/  
  
alter table study  
    modify fname varchar2(20) not null;  
  
desc study;
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/* adding a column */

alter table study
  add email varchar2(30);
alter table study
  add join_date date;
alter table study
  add allowance number(5);

desc study;

/* adding unique constraint */

alter table study
  modify email varchar2(30) unique;

desc study;

/* how to add a primary key */

alter table study
  add primary key (empid);

/* how to drop a primary key */

alter table study
  drop primary key;

/* how to add a primary key as named constraint */

alter table study
  add constraint pk_study primary key (empid);

/* how to drop a primary key when it is a named constraint */

alter table study
  drop constraint pk_study;

/* inserting values into a table */

insert into study values (1, 'brock', 'lesnar', 'brock@gmail.com',
  '01-feb-1981',9000);
insert into study values (2, 'seth', 'rollins', 'seth@gmail.com',
  '02-feb-1981',8000);
insert into study values (3, 'drew', 'mcyntyre', 'drew@gmail.com',
  '03-feb-1981',7000);
insert into study values (4, 'roman', 'regigns', 'roman@gmail.com',
  '04-feb-1981',6000);

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/* to view the contents of a table */
select * from study;

/* to view only few attributes in the table */
select empid, fname, allowance from study;

/* use of where clause */
select * from study
  where allowance = 9000;

/* use of arithmetic operators */
select * from study where allowance > 5000;

/* how to delete a row from table */
delete from study where allowance = 6000;
delete from study where fname = 'seth';

/* how to delete the entire contents of the table */
delete from study;

/* delete all contents of a table */
delete from study;

/* insert all the rows again */
/* example of null constraint violation */
insert into study (empid , allowance) values (5, 4000);

/* example of primary constraint violation */
insert into study values (4, 'james', 'joseph', 'james@gmail.com',
'05-feb-1981', 6000);

/* example of unique constraint violation */
insert into study values (5, 'james', 'joseph', 'brock@gmail.com',
'05-feb-1981', 9000);

/* use of check constraint */
alter table study
  modify allowance number(5) check (allowance < 10000);

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insert into study values (5, 'james', 'joseph', 'james@gmail.com',
'05-feb-1981',11000);

/* how to drop a check constraint */

alter table study
alter check allowance;

/* create another table to understand foreign key */

create table rank
(
id number primary key,
empid references study,
rank number(4)
);

desc rank;
drop table rank purge;

/* same attribute as primary and foreign key */

create table rank
(
empid primary key references study,
rank number(4)unique
);

desc rank;

/* insert values into rank table */

insert into rank values (1,3);
insert into rank values (2,7);
insert into rank values (3,5);
insert into rank values (4,2);

/* display the content of table rank */

select * from rank;

/* example of foreign key breach
as no empid exists with 5 */

insert into rank values (5,1);

/* solving the above problem */

insert into study values (5, 'the', 'paige', 'paige@gmail.com', '05-feb-1981',4000);
insert into rank values (5,23);

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/*creating alias name for display */  
  
select * from rank;  
select empid as "wrestler id", rank as "2023 ranking" from rank;  
  
/* example of join to use information from two tables */  
  
desc study;  
desc rank;  
  
select study.empid, study.fname,study.email, rank.rank  
  from study,rank  
  where study.empid = rank.empid;  
  
select s.empid, s.fname,s.email, r.rank  
  from study s,rank r  
  where s.empid = r.empid;  
  
/* thank you */
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