1. **CREATE TABLE  
   SYNTAX:**CREATE TABLE <table\_name>( col1 data\_type(size), col2 data\_type(size) … ,coln data\_type(size);

**EXAMPLE:**CREATE TABLE mca12\_emp(emp\_no VARCHAR2(25),ename CHAR(35), basic NUMBER(10));

1. **INSERT DATA  
   SYNTAX:**

INSERT INTO <table\_name>(col1,col2,…,coln) values(val1,val2,…,val3);

**EXAMPLE:**INSERT INTO mca12\_emp VALUES('MC4112','Denver',16000);

1. **PREVIEW ALL DATA  
   SYNTAX:**

SELECT \* FROM <table\_name> [CONSTRAINTS];

**EXAMPLE:**

SELECT \* FROM mca12\_emp;

1. **VIEW TABLE STRUCTURE**

**SYNTAX:**

DESC <table\_name>

**EXAMPLE:**

DESC mca12\_emp

1. **ALTER TABLE (Add Columns)**

**SYNTAX:**

ALTER TABLE <table\_name> ADD <column\_name datatype>,<column\_name datatype>;

**EXAMPLE:**

ALTER TABLE mca12\_emp ADD dependent NUMBER(5)  
**PS: ALTER REQUIRES THE TABLE TO BE EMPTY.**

1. **ALTER TABLE REMOVE COLUMNS**

**SYNTAX:**

ALTER TABLE <table\_name> DROP COLUMN <col\_name>

**EXAMPLE:**

ALTER TABLE mca12\_emp DROP COLUMN dependent

1. **ALTER TABLE MODIFY DATATYPE**

**SYNTAX:**

ALTER TABLE <table\_name> MODIFY <column\_name datatype>;

**EXAMPLE:**ALTER TABLE mca12\_emp MODIFY (emp\_no NUMBER(10))

1. **DELETE TABLE  
   SYNTAX:**

DROP <table\_name>

**EXAMPLE:**DROP mca12\_temp;

INSERT INTO mca12\_flights VALUES(14101,'DXB','IXE',2457, TO\_DATE('04:00:00', ' HH:MI:SS') ,TO\_DATE(‘ 06:20:00', HH:MI:SS'))

|  |  |  |
| --- | --- | --- |
| [**Time**](javascript:html_PPR_Report_Page(this,'R5983109938894128','http://127.0.0.1:8080/apex/f?p=4500:1201:692594131961295:fsp_sort_1::RP&fsp_region_id=5983109938894128');)**sort by this column** | **SQL** | **Schema** |
| 119 seconds ago | [create table dependent(essn varchar(15), dependent\_name varchar(25), sex varchar(6), bdate date, rel](javascript:sc_postHistory('7127829201632399','SYSTEM');) | SYSTEM |
| 2 minutes ago | [create table dependent(essn varchar(15), dependent\_name varchar(25), sex varchar(6), bdate date, rel](javascript:sc_postHistory('7127625738631410','SYSTEM');) | SYSTEM |
| 6 minutes ago | [drop table dependent](javascript:sc_postHistory('7127409546607762','SYSTEM');) | SYSTEM |
| 6 minutes ago | [create table dependent(essn varchar(15), dependent\_name varchar(25), sex varchar(6), bdate date, rel](javascript:sc_postHistory('7127201927605589','SYSTEM');) | SYSTEM |
| 16 minutes ago | [create table mca12\_test(ssn number primary key, sssn number, foreign key(sssn) references mca12\_test](javascript:sc_postHistory('7126932524548179','SYSTEM');) | SYSTEM |
| 17 minutes ago | [create table mca12\_test(ssn number primary key, sssn number, foreign key(sssn) references mca12\_test](javascript:sc_postHistory('7126612092542298','SYSTEM');) | SYSTEM |
| 17 minutes ago | [create table mca12\_test(ssn number, sssn number, foreign key(sssn) references mca12\_test(ssn))](javascript:sc_postHistory('7126409668541605','SYSTEM');) | SYSTEM |
| 17 minutes ago | [create table mca12\_test(ssn number, sssn number, foreign key(sssn) references(ssn))](javascript:sc_postHistory('7126206551540715','SYSTEM');) | SYSTEM |
| 18 minutes ago | [create table mca12\_works\_on(essn varchar(10), pno number, hours number, foreign key(essn) references](javascript:sc_postHistory('7126017155534322','SYSTEM');) | SYSTEM |
| 19 minutes ago | [create table mca12\_works\_on(essn varchar(10), pno number, hours number, foreign key(essn) references](javascript:sc_postHistory('7125611614532720','SYSTEM');) | SYSTEM |
| 20 minutes ago | [create table mca12\_works\_on(essn varchar(10), pno number, hours number, foreign key(essn,pno) refere](javascript:sc_postHistory('7125209752522690','SYSTEM');) | SYSTEM |
| 20 minutes ago | [create table mca12\_works\_on(essn varchar(10), pno number, hours number, foreign key(essn,pno) refere](javascript:sc_postHistory('7125007328522024','SYSTEM');) | SYSTEM |
| 21 minutes ago | [create table mca12\_works\_on(essn varchar(10), pno number, hours number, foreign key(essn,pno) refere](javascript:sc_postHistory('7124701441520253','SYSTEM');) | SYSTEM |
| 21 minutes ago | [create table mca12\_works\_on(essn varchar(10), pno number, hours number, foreign key(essn,pno) refere](javascript:sc_postHistory('7124529707518999','SYSTEM');) | SYSTEM |
| 21 minutes ago | [create table mca12\_works\_on(essn varchar(10), pno number, hours number, foreign key(essn,pno) refere](javascript:sc_postHistory('7124325897517870','SYSTEM');) | SYSTEM |

|  |  |  |
| --- | --- | --- |
| 21 minutes ago | [create table mca12\_works\_on(essn varchar(10), pno number, hours number, foreign key(essn,pno) refere](javascript:sc_postHistory('7124122780516982','SYSTEM');) | SYSTEM |
| 23 minutes ago | [create table project(pname varchar2(30), pnumber number primary key, ploc varchar2(15), dnum number,](javascript:sc_postHistory('7123811568504263','SYSTEM');) | SYSTEM |
| 23 minutes ago | [create table project(pname varchar2(30), pnumber number primary key, ploc varchar2(15), dnum number,](javascript:sc_postHistory('7123601525501413','SYSTEM');) | SYSTEM |
| 24 minutes ago | [create table project(pname varchar2(30), pnumber number primary key, ploc varchar2(15), dnum varchar](javascript:sc_postHistory('7123330830500407','SYSTEM');) | SYSTEM |
| 28 minutes ago | [create table xyzx(not\_not\_no number primary key, not\_no number primary key)](javascript:sc_postHistory('7123031129472080','SYSTEM');) | SYSTEM |
| 29 minutes ago | [create table xyzx(not\_not\_no number primary key, not\_no number primary key)](javascript:sc_postHistory('7122825588470534','SYSTEM');) | SYSTEM |
| 29 minutes ago | [create xyzx(not\_not\_no number primary key, not\_no number primary key)](javascript:sc_postHistory('7122622125469536','SYSTEM');) | SYSTEM |
| 29 minutes ago | [create table mca12\_dpt\_loc(dnum number, dloc varchar(15), foreign key(dnum) references mca12\_dpt(dn](javascript:sc_postHistory('7122413814467109','SYSTEM');) | SYSTEM |
| 29 minutes ago | [create xyzx(no number primary key, not\_no number primary key);](javascript:sc_postHistory('7122209312465775','SYSTEM');) | SYSTEM |
| 30 minutes ago | [create xyz(no number primary key, not\_no number )](javascript:sc_postHistory('7122004810464511','SYSTEM');) | SYSTEM |
| 30 minutes ago | [create xyz(no number primary key, not\_no number primary key)](javascript:sc_postHistory('7121803079464018','SYSTEM');) | SYSTEM |
| 30 minutes ago | [10](javascript:sc_postHistory('7121622687460181','SYSTEM');) | SYSTEM |
| 30 minutes ago | [create table mca12\_dpt\_loc(dnum varchar(10), dloc varchar(15), foreign key(dnum) references mca12\_dp](javascript:sc_postHistory('7121220263459452','SYSTEM');) | SYSTEM |
| 31 minutes ago | [create table mca12\_dpt\_loc(dnum varchar(10), dloc varchar(15), foreign key(dnum) references mca12\_dp](javascript:sc_postHistory('7121015761458224','SYSTEM');) | SYSTEM |
| 32 minutes ago | [alter table mca12\_employee modify ssn varchar(10) foreign key(ssn) references mca12\_employee(ssn)](javascript:sc_postHistory('7120713552448059','SYSTEM');) | SYSTEM |
| 35 minutes ago | [alter table mca12\_employee modify ssn varchar(10) foreign key(ssn) references mca12\_employee(ssn)](javascript:sc_postHistory('7120527966442777','SYSTEM');) | SYSTEM |
| 35 minutes ago | [alter table mca12\_employee modify (ssn foreign key(ssn) references mca12\_employee(ssn))](javascript:sc_postHistory('7120320001440473','SYSTEM');) | SYSTEM |
| 35 minutes ago | [alter table mca12\_employee modify ssn (foreign key(ssn) references mca12\_employee(ssn))](javascript:sc_postHistory('7120116884439595','SYSTEM');) | SYSTEM |
| 36 minutes ago | [alter table mca12\_employee modify ssn foreign key(ssn) references mca12\_employee(ssn)](javascript:sc_postHistory('7119910997437930','SYSTEM');) | SYSTEM |
| 37 minutes ago | [alter table mca12\_employee modify ssn foreign key references mca12\_employee(ssn)](javascript:sc_postHistory('7119508442427737','SYSTEM');) | SYSTEM |
| 38 minutes ago | [alter table mca12\_employee modify ssn foreign key references mca12\_employee(ssn)](javascript:sc_postHistory('7119304286426497','SYSTEM');) | SYSTEM |
| 39 minutes ago | [create table mca12\_dpt(dname varchar(10),dnum number primary key,mgrssn varchar2(10),foreign key(mgr](javascript:sc_postHistory('7118531728415502','SYSTEM');) | SYSTEM |
| 39 minutes ago | [alter table mca12\_employee modify ssn primary key](javascript:sc_postHistory('7118330689415145','SYSTEM');) | SYSTEM |
| 40 minutes ago | [create table mca12\_dpt(dname varchar(10),dnum number primary key,mgrssn varchar2(10),foreign key(mgr](javascript:sc_postHistory('7118119954412064','SYSTEM');) | SYSTEM |
| 40 minutes ago | [create table mca12\_dpt(dname varchar(10),dnum number primary key,mgrssn varchar2(10),foreign key(mgr](javascript:sc_postHistory('7117712682409989','SYSTEM');) | SYSTEM |
| 41 minutes ago | [mgrssn](javascript:sc_postHistory('7117500561406526','SYSTEM');) | SYSTEM |
| 41 minutes ago | [mgrssn](javascript:sc_postHistory('7117327788404903','SYSTEM');) | SYSTEM |
| 42 minutes ago | [ssn](javascript:sc_postHistory('7117117052401763','SYSTEM');) | SYSTEM |
| 42 minutes ago | [ssn](javascript:sc_postHistory('7116912897400543','SYSTEM');) | SYSTEM |
| 42 minutes ago | [create table mca12\_dpt(dname varchar(10),dnum number primary key,mgrssn varchar2(10),foreign key(mgr](javascript:sc_postHistory('7116703547397935','SYSTEM');) | SYSTEM |

**List the names of the people who work for the company Wipro along with the cities they live in.**

SELECT LI.pname,LI.city FROM LOCATED L,WORKS W,LIVES LI WHERE (W.CNAME=L.CNAME AND L.CNAME='Croma') AND (W.PNAME=LI.PNAME)

**Find the names of the persons who live and work in the same city.**

SELECT l.pname FROM located LC,lives L,works W WHERE W.cname=LC.cname AND LC.city=L.city

**Display the details of the employee whose name has the alphabet ‘k’.**

SELECT pname FROM works WHERE pname LIKE 'K%'

**Find the people who work for the company ‘Infosys’ with a salary more than Rs. 50000/-. List the names of the people along with the street and city addresses.**

SELECT \* FROM works w,lives l WHERE (cname='Croma' AND salary>50000 ) AND W.pname = L.pname

**Find the names of the persons who do not work for ‘Infosys’.**

SELECT \* FROM WORKS WHERE NOT cname='Croma'

**Find the names of the companies that are located in every city where the company ‘Infosys’ is located.**

SELECT cname FROM located WHERE city=(SELECT city FROM located WHERE cname='Croma') AND cname NOT IN ('Croma')

**Display the average salary and number of the employees company wise in descending order of salary.**

SELECT AVG(salary) Average\_Salary,cname FROM works GROUP BY cname ORDER BY Average\_Salary DESC

**Display the details of the employee whose name has the alphabet ‘k’.**

SELECT l.pname,street,city,cname FROM lives L,works W WHERE L.pname=W.pname AND l.pname LIKE '%a%'

**Delete the record of a particular employee from the LIVES.**

DELETE FROM works WHERE pname='John'  
DELETE FROM lives WHERE pname='John'

**Consider the following relations for a database that keeps track of student enrollment in courses and the books adopted for each course:**

**STUDENT(Ssn, Name, Major, Bdate)**

**COURSE(Course#, Cname, Dept\_name)**

**ENROLL(Ssn, Course#, Quarter, Grade)**

**TEXT(Book\_isbn, Book\_title, Publisher, Author)**

**BOOK\_ADOPTION(Course#, Quarter, Book\_isbn)**

**Execute the SQL queries for the following:**

**Create the tables and assign the appropriate primary key and foreign key constraints.**

CREATE TABLE mca12\_student(ssn VARCHAR2(12) PRIMARY KEY,name VARCHAR2(25),major VARCHAR2(10), bdate DATE)

CREATE TABLE mca12\_course(cid number PRIMARY KEY,cname VARCHAR2(25),dname VARCHAR2(25))

DROP TABLE mca12\_enroll

CREATE TABLE mca12\_enroll(ssn VARCHAR(12), cid number,quarter VARCHAR(5),grade VARCHAR(10),FOREIGN KEY(ssn) REFERENCES mca12\_student(ssn), FOREIGN KEY(cid) REFERENCES mca12\_course(cid))

CREATE TABLE mca12\_text(isbn VARCHAR(15) PRIMARY KEY,title VARCHAR(25),publisher VARCHAR(25),authon VARCHAR(25))

CREATE TABLE BOOK\_ADOPTION(cid NUMBER,quarter VARCHAR(5),b\_isbn VARCHAR(15), FOREIGN KEY(b\_isbn) REFERENCES mca12\_text(isbn), FOREIGN KEY(cid) REFERENCES mca12\_course(cid))

**Insert at least 5 tuples for each table.**

INSERT INTO mca12\_student

VALUES('1AE17EE01','Adrian','E&E',to\_date('16/09/1995','dd/mm/yyyy'))

INSERT INTO mca12\_student VALUES('1AE17EE02','Brian','E&E',to\_date('14/02/1995','dd/mm/yyyy'))

INSERT INTO mca12\_student VALUES('1AE17EE03','Calvin','E&E',to\_date('17/11/1995','dd/mm/yyyy'))

INSERT INTO mca12\_student VALUES('1AE17EE04','Derek','E&E',to\_date('24/07/1995','dd/mm/yyyy'))

INSERT INTO mca12\_student VALUES('1AE17EE05','Elysa','E&E',to\_date('08/06/1995','dd/mm/yyyy'))

**List the number of courses taken by all students named John Smith in Winter 2009 (i.e., Quarter=W09).**

**Retrieve the names of students who have enrolled in a course that uses a textbook published by Addison-Wesley.**

**Produce a list of textbooks (include Course#, Book\_isbn, Book\_title) for courses offered by the ‘CS’ department**

**Display the student details whose year of birth is between 1990 and 1999 and enrolled for a winter course.**

**Delete details of a book from TEXT.**

**Display the details of the books published by both Wiley and MGH publishers**

**INSERT INTO mca12\_course VALUES(17011,'Physics','E&E')**

**INSERT INTO mca12\_course VALUES(12012,'Mathematics I','NM')**

**INSERT INTO mca12\_course VALUES(16013,'Solid Electronics','E&E')**

**INSERT INTO mca12\_course VALUES(16014,'Programming in C','CS')**

**INSERT INTO mca12\_course VALUES(16015,'Physics','SC')**

**SELECT \* FROM MCA12\_course**