select \* from emp;

1.

create table LOCATIONS

(LOCATION\_ID NUMBER PRIMARY KEY,

STREET\_ADDRESS VARCHAR2(40),

POSTAL\_CODE VARCHAR2(12),

CITY VARCHAR2(30) NOT NULL,

STATE\_PROVINCE VARCHAR2(25));

2.

create table departaments

(DEPARTMENT\_ID NUMBER PRIMARY KEY,

DEPARTMENT\_NAME VARCHAR2(30) NOT NULL,

LOCATION\_ID NUMBER);

3.

create table jobs

(JOB\_ID NUMBER PRIMARY KEY,

JOB\_TITLE VARCHAR2(35) NOT NULL,

MIN\_SALARY NUMBER(6),

MAX\_SALARY NUMBER(6));

4.

create table employees (

EMPLOYEE\_ID NUMBER PRIMARY KEY,

FIRST\_NAME VARCHAR2(20),

LAST\_NAME VARCHAR2(25) NOT NULL,

EMAIL VARCHAR2(25) NOT NULL,

PHONE\_NUMBER VARCHAR2(20),

HIRE\_DATE DATE NOT NULL,

JOB\_ID NUMBER NOT NULL,

SALARY NUMBER(8,2),

COMMISSION\_PCT NUMBER(2,2),

MANAGER\_ID NUMBER,

DEPARTMENT\_ID NUMBER

);

5.

CREATE SEQUENCE TAB\_DEPARTMENTS\_SEQ

START WITH 1

INCREMENT BY 1;

CREATE SEQUENCE TAB\_EMPLOYEES\_SEQ

START WITH 1

INCREMENT BY 1;

CREATE SEQUENCE ZTH\_SEQ

START WITH 406

INCREMENT BY 1;

CREATE SEQUENCE TAB\_JOBS\_SEQ

START WITH 1

INCREMENT BY 1;

Constraints:

1.

a) alter table employees add constraint FK\_EMPLOYEES\_DEPARTMENTS foreign key (DEPARTMENT\_ID) references departaments (DEPARTMENT\_ID);

b) alter table employees add constraint FK\_EMPLOYEES\_JOBS foreign key (job\_id) references jobs (job\_id);

c) alter table employees add constraint FK\_EMPLOYEES\_EMPL\_MANAGER foreign key (manager\_id) references employees (employee\_id);

# Data Manipulation Language

1.

insert into departaments values

( TAB\_DEPARTMENTS\_SEQ.nextval,

'Administration',

1700

);

CREATE SEQUENCE TAB\_JOBS\_SEQ

START WITH 1

INCREMENT BY 1;

insert into jobs values

( TAB\_JOBS\_SEQ.nextval

, 'President'

, 20000

, 40000

);

INSERT INTO employees

VALUES (TAB\_EMPLOYEES\_SEQ.nextval,

'Steven',

'King',

'SKING',

'515.123.4567',

sysdate,

1,

24000,

0.0,

1,

1);

# Retrieving Data from database

1.

select \* from employees;

select \* from locations;

select \* from jobs;

select \* from departments;

2.

select \* from employees

where department\_id = 50;

3

update employees

set salary = salary\*1.3

where department\_id = 50;

4.

5.

select \* from employees

where job\_id = 'IT\_PROG'

order by first\_name;

6.

select count(employee\_id) from employees emp where emp.JOB\_ID = 'IT\_PROG';

7.

select e.\*, d.department\_name from employees e

join departments d

on e.department\_id = d.department\_id

where e.department\_id = 50;

8.

select e.\*, d.location\_id from employees e

join departments d

on e.department\_id = d.department\_id

where d.location\_id = 1700;

9.

create view firstView as

select e.employee\_id, e.first\_name, d.department\_name

from employees e

join departments d

on e.department\_id = d.department\_id;

10.

SELECT sysdate from dual;

11.

select to\_char(sysdate, 'dd-MM-yyyy') from dual;

12.

select to\_date('25-11-2014', 'dd-MM-yyyy') from dual;

13.

select UPPER(e.first\_name), LOWER(e.email) from employees e;

14.

select 'First Name: ' || UPPER(e.first\_name), LOWER(e.email) from employees e;

15.

select count(employee\_id) from employees;

16.

select count(employee\_id) from employees where job\_id = 'IT\_PROG';

17.

select count(employee\_id), department\_id from employees

group by department\_id;

18.

select avg(salary) from employees

where department\_id = 50;

19.

select max(salary), min(salary) from employees e

join departments d

on e.department\_id = d.department\_id

where d.location\_id = 1700;

# Liquibase generation DDLs

1.