Assignment 3 (7%)

Total : 60 marks.

Please work in **groups** of max 3 and min 2 to complete this Assignment. This Assignment is worth 7% of the total course grade and will be evaluated through your written submission, as well as the Assignment demo in the class worth 3%. During the Assignment demo, group members are randomly selected to present the answers to each of the lab questions. Group members not present during the Assignment demo will lose the demo mark. Individual submission will have penalty of 10%.

1. Display department number, department name, and the number of employees working in each department that has the highest number of employees. Use subquery only. (5 marks)

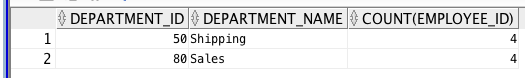
select department\_id, d.department\_name, count(employee\_id)

from employees e join departments d

using(department\_id)

group by department\_id, d.department\_name

having count(employee\_id) = all (select max(count(employee\_id)) from employees group by department\_id);



1. Display all the employees who were hired on the day of the week on which the highest number of employees were hired. List the first name and last name columns together with a space in between. Label the column as Full Name and label day as day of the week. Use subquery only. (5 marks)

select first\_name || ' ' || last\_name "Full Name", to\_char(hire\_date, 'Day') "Day"

from employees

where to\_char(hire\_date, 'day') in (select to\_char(hire\_date, 'day') "Day"

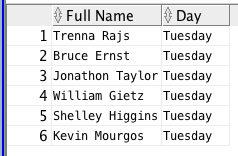
from employees

group by to\_char(hire\_date, 'day')

having count(\*) = (select max(count(\*))

from employees

group by to\_char(hire\_date, 'day')));



1. Department 50 needs access to its employee data. Create a view named DEPT50 that contains the employee numbers, employee last names, and department numbers for all employees in department 50. They have requested that you label the view columns EMPNO, EMPLOYEE, and DEPTNO. For security purposes, do not allow an employee to be reassigned to another department through the view. (5 marks)

Create view dept50 as

select employee\_id empno, last\_name employee,department\_id deptno

from employees

where department\_id = 50

with check option constraint emp\_dept50\_ck;

\*The "with check option", it is used to prevent changes to a view that would produce rows that are not included in a sub-query.

../Desktop/Screen%20Shot%202018-11-27%20at%2011.54.31%20AM.p

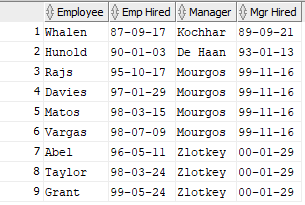
1. Create a view named emp\_hired that has the names and hire dates for all employees who were hired before their managers, along with their manager’s names and hire dates. Label the columns Employee, Emp Hired, Manager, and Mgr Hired, respectively. (5 marks)

select w.last\_name “Employee”, w.hire\_date “Emp Hired”, m.last\_name ”Manager”, m.hire\_date “Mgr Hired”

from employees w join employees m

on (w.manager\_id = m.employee\_id)

where w.hire\_date < m.hire\_date;



1. The Date base Administrator needs you to create a table, which has a primary key constraint, but she wants to name the index to have a different name than the constraint. Create the Locations\_Index table based on the following table instance chart. Name the index for the PRIMARY KEY column as LOCATIONS\_PK\_IDX. (5 marks)

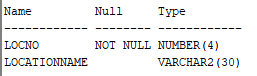
|  |  |  |
| --- | --- | --- |
| Column Name | Deptno | Dname |
| Primary key | Yes |  |
| Data Type | Number | VARCHAR2 |
| Length | 4 | 30 |

create table locations\_index

(locno number(4) primary key using index

(create index locations\_pk\_idx on locations\_index(locno)),

locationname varchar2 (30));



1. Create a report of a list of employees who are up for review in March; so you are requested to do the following: (5 marks)

Write a query to display the last names, month of the date of hire, and hire date of those employees who have been hired in the month of March, irrespective of the year of hire.

For MAC date format (YY-MM-DD)

select last\_name, to\_char(hire\_date, 'month') as "month", hire\_date

from employees

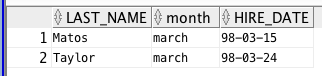
where hire\_date like '%03%';

For WINDOWS date format (DD-MON-YY)

select last\_name, to\_char(hire\_date, 'month') as "month", hire\_date

from employees

where hire\_date like '%MAR%';



1. The Accounting department requires an analysis on maximum and minimum salaries by job, manager, and department. They have asked you to do the following: (5 marks)

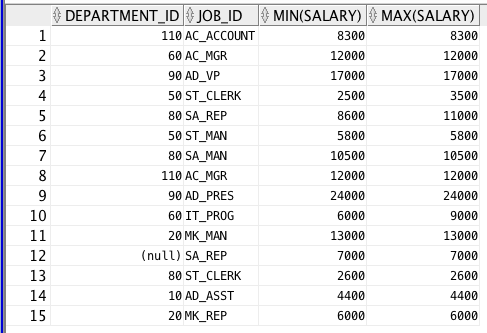
Write a query to display the following groupings:

Department\_id, job\_id:

select department\_id, job\_id, min(salary), max(salary)

from employees

group by department\_id, job\_id;

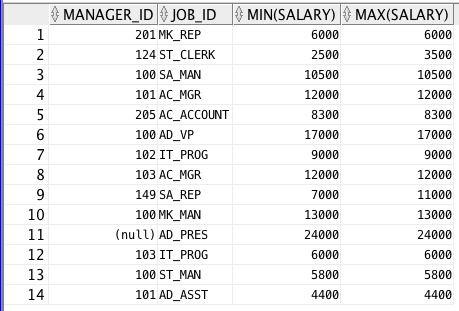


Job\_id, manager\_id:

select manager\_id, job\_id, min(salary), max(salary)

from employees

group by manager\_id, job\_id;



1. Create the EMP table based on the structure of the EMPLOYEES table. Include only the EMPLOYEE\_ID, FIRST\_NAME, LAST\_NAME, SALARY, and JOB\_ID columns for departments 90,80,60, and 50. Name the columns in your new table NO, FIRST\_NAME, LAST\_NAME, SALARY, and JOB\_TITLE, respectively. (5 marks)

create table emp (no, first\_name, last\_name, salary, job\_title) as

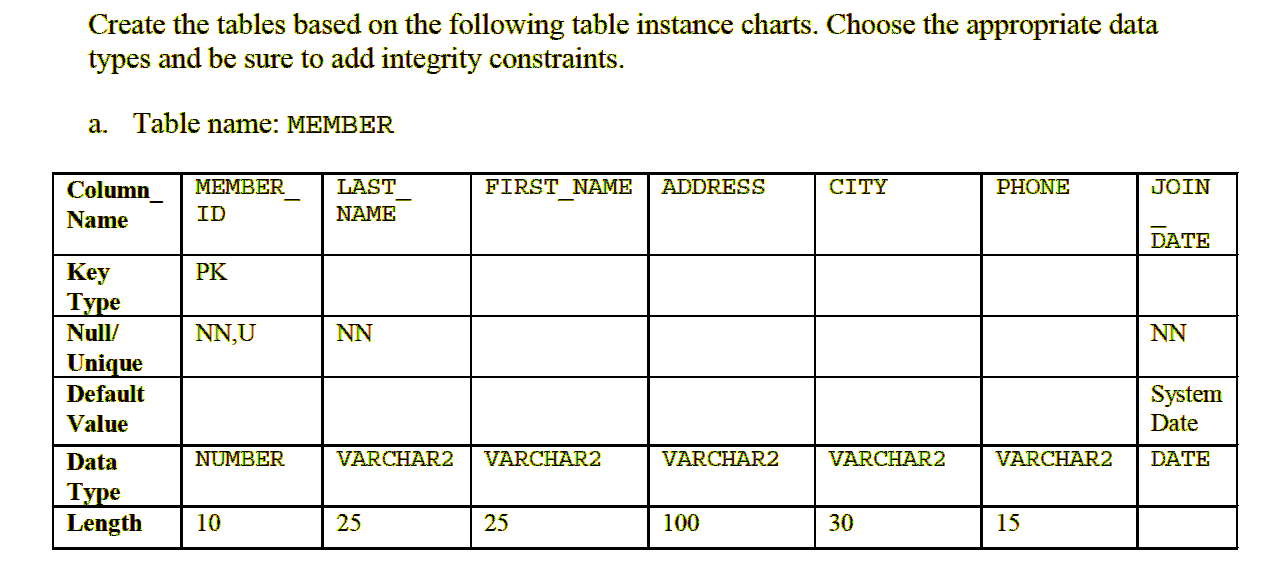
select employee\_id, first\_name, last\_name, salary, job\_id

from employees

where department\_id in (90, 80, 60, 50);

output: Table EMP created.

1. (15 marks)



create table member(

member\_id number(10) primary key not null,

last\_name varchar2(25) not null,

first\_name varchar2(25),

address varchar2(100),

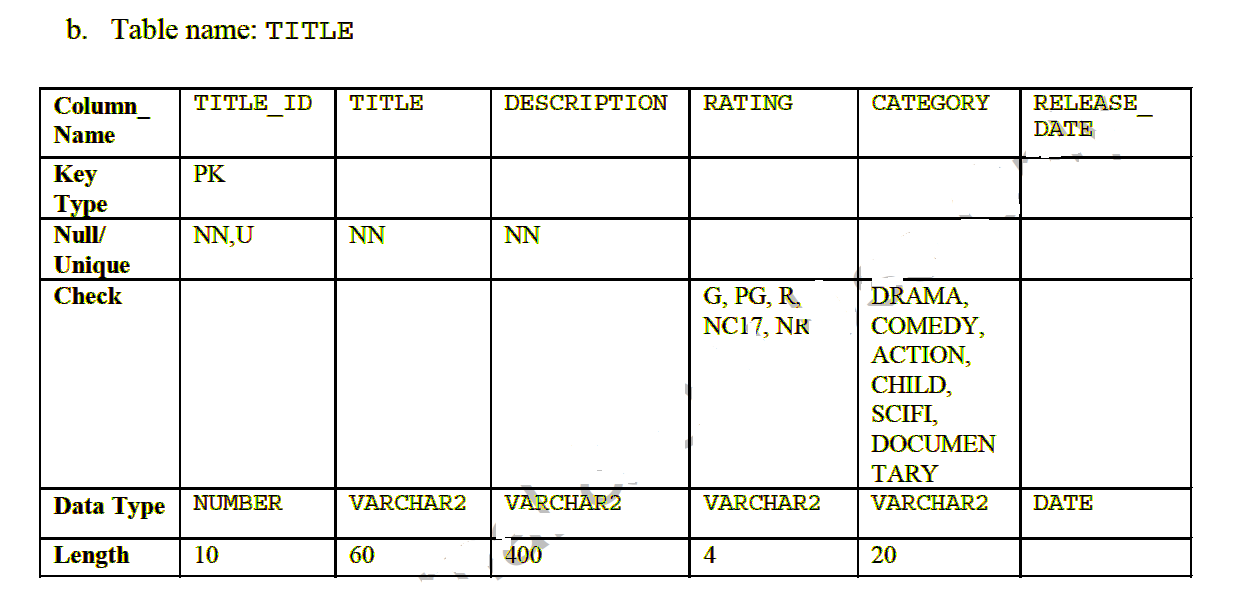
city varchar2(30),

phone varchar2(15),

join\_date date default sysdate not null

);

output: Table member created.



create table title(

title\_id number(10) primary key not null,

title varchar2(60) not null,

description varchar2(400) not null,

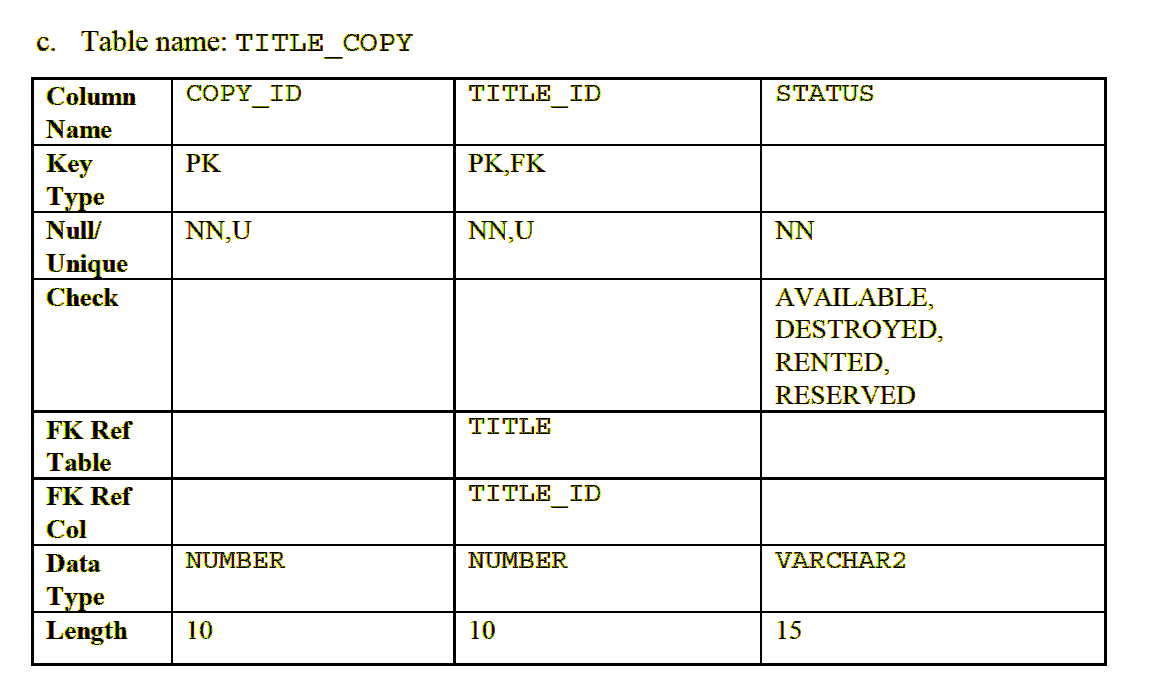
rating varchar2(4) constraint title\_rating\_ck check(rating in ('G','PG','R','NC17','NR')),

category varchar2(20) constraint title\_category\_ck check(category in ('drama', 'comedy', 'action', 'child', 'scifi', 'documentary')),

release\_date date

);

output: Table TITLE created.



create table title\_copy(

copy\_id number(10),

title\_id number(10) references title(title\_id) not null,

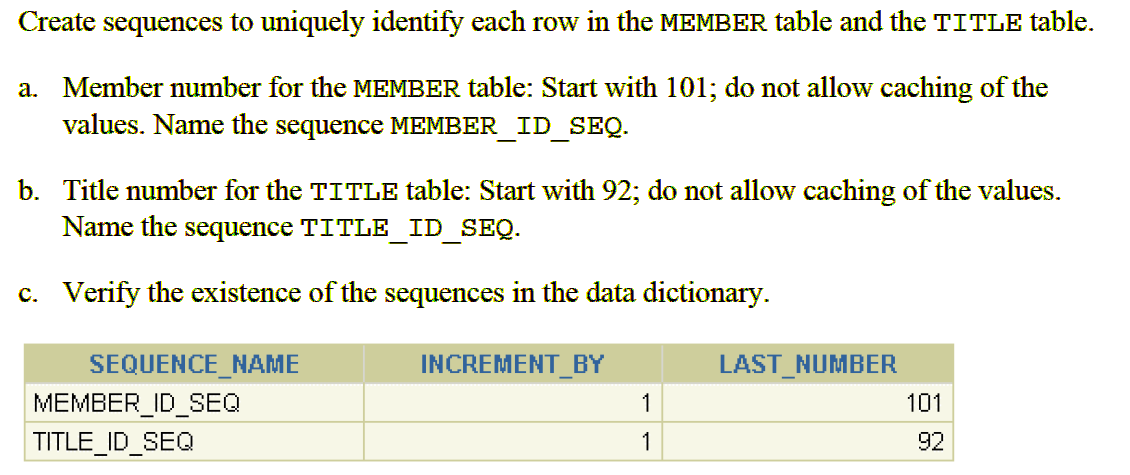
status varchar2(15) constraint status\_ck check(status in ('available', 'destroyed', 'rented', 'reserved')),

constraint copy\_title\_pk primary key (copy\_id, title\_id)

);

output: Table TITLE\_COPY created.

1. (5 marks)



create sequence member\_id\_seq

start with 101

nocache;

output: Sequence MEMBER\_ID\_SEQ created.

create sequence title\_id\_seq

start with 92

nocache;

output: Sequence TITLE\_ID\_SEQ created.

select sequence\_name, increment\_by, last\_number

from user\_sequences

where sequence\_name in (’MEMBER\_ID\_SEQ’, ’TITLE\_ID\_SEQ’);

