

Assignment 8

Using subquery or joining to answer the following queries.

Answer the following questions regarding the classSchedule database:

1. Which instructor are qualified to teach ISM3113?

Soln: `select f.faculty_name
from qualified q, faculty f
where q.faculty_id = f.faculty_id and q.course_id = 'ISM 3113';`

2. Is any instructor qualified to teach ISM3113 and not qualified to teach ISM4930.

Soln: `select f.faculty_name
from qualified q, faculty f
where f.faculty_id = q.faculty_id
group by q.faculty_id
having q.course_id = 'ISM3113' and q.course_id != 'ISM4930';`

3. How many students are enrolled in ISM3113 during semester I-2008?

Soln: `select count(distinct r.student_id) as numStudents
from registration r, section s
where r.semester = 'I-2008' and r.section_no = s.section_no and
s.course_id = 'ISM3113';`

4. Which students were not enrolled in any courses during semester I-2008?

Soln: `select distinct student_id, student_name
from student s
where not exists(
select *
from registration r
where s.student_id = r.student_id and semester = 'I-2008');`

Answer the following questions regarding the hotelBooking database:

1. Create a view containing the hotel name and the names of the guests staying at the hotel.

Soln: create viw HotelData(hotelName, guestName)

```
as select h.hotelName, g.guestName
from Hotel h, Guest g, Booking b
where h.hotelNo = b.hotelNo and g.guestNo = b.guestNo and
b.dateFrom <= CURRENT_DATE and
b.dateTo >= CURRENT_DATE;
```

2. Create a view containing the account for each guest at the Grosvenor Hotel.

Soln: create view BookingOutToday

```
as select g.guestNo, g.guestName, g.guestAddress,
r.price*(b.dateTo - b.dateFrom)
from Guest g, Booking b, Hotel h, Room r
where g.guestNo = b.guestNo and r.roomNo = b.roomNo and
b.hotelNo = h.hotelNo and h.hotelName = 'Grosvenor' and
b.dateTo = CURRENT_DATE;
```

3. *What is the total income from bookings for the Grosvenor Hotel today?*

Soln: select sum(price) from Booking b, Room r, Hotel h

```
where (dateFrom <= CURRENT_DATE and
dateTo >= CURRENT_DATE) and
r.hotelNo = h.hotelNo and r.roomNo = b.roomNo and
hotelName = 'Grosvenor';
```

4. List the rooms that are currently unoccupied at the Grosvenor Hotel.

Soln: select * from Room r

```
where roomNo not in
(select roomNo from Booking b, Hotel h
where (dateFrom <= CURRENT_DATE and
dateTo >= CURRENT_DATE) and
b.hotelNo = h.hotelNo and hotelName = 'Grosvenor');
```

5. What is the lost income from unoccupied rooms at the Grosvenor Hotel?

Soln: `select sum(price) from Room r
where roomNo not in
(select roomNo from Booking b, Hotel h
where (dateFrom <= CURRENT_DATE and
dateTo >= CURRENT_DATE) and
b.hotelNo = h.hotelNo and hotelName = 'Grosvenor Hotel');`

6. What is the lost income from unoccupied rooms at each hotel today?

Soln: `select hotelNo, sum(price) from Room r
where roomNo not in
(select roomNo from Booking b, Hotel h
where (dateFrom <= CURRENT_DATE and
dateTo >= CURRENT_DATE) and
b.hotelNo = h.hotelNo)
group by hotelNo;`

Answer the following questions regarding the new adultliteracy database:

1. Find any tutors who have not submitted a report for July

Soln: `select distinct tutor_id
from match_history h
where not exists (
select * from tutor_report t
where h.match_id = t.match_id and
month like '7-%');`

2. Which tutors, by id, are available to tutor?

Soln: `select distinct tutor_id
from tutor
where status = 'Active' and exists (
select * from match_history
where tutor.tutor_id = match_history.tutor_id
and (end_date is not null or
end_date < current_date));`

3. Which tutor needs to be reminded to turn in reports?

```
Soln: select distinct tutor_id  
      from match_history  
      where not exists (  
        select *  
        from tutor_report  
        where tutor_report.match_id = match_history.match_id);
```