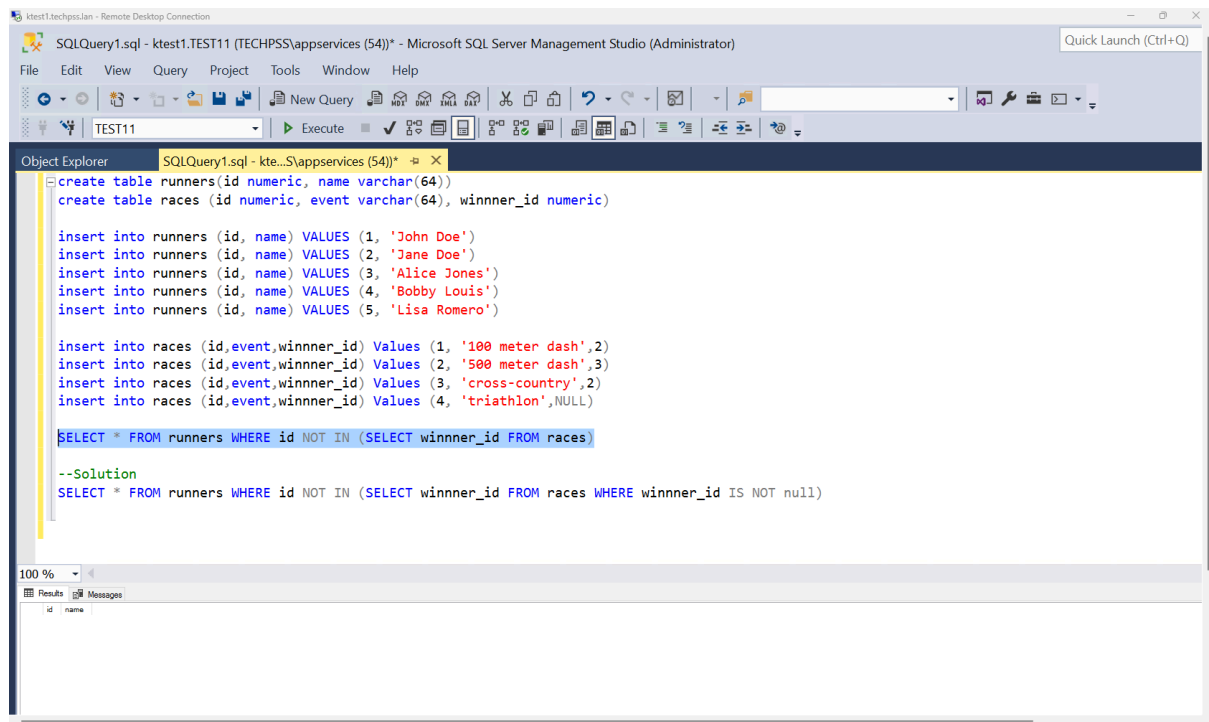


## QUESTION 1 :

Result of provided query : **SELECT \* FROM runners WHERE id NOT IN (SELECT winnner\_id FROM races)** is blank.



## Solution :

```
create table runners(id numeric, name varchar(64))
create table races (id numeric, event varchar(64), winnner_id numeric)
```

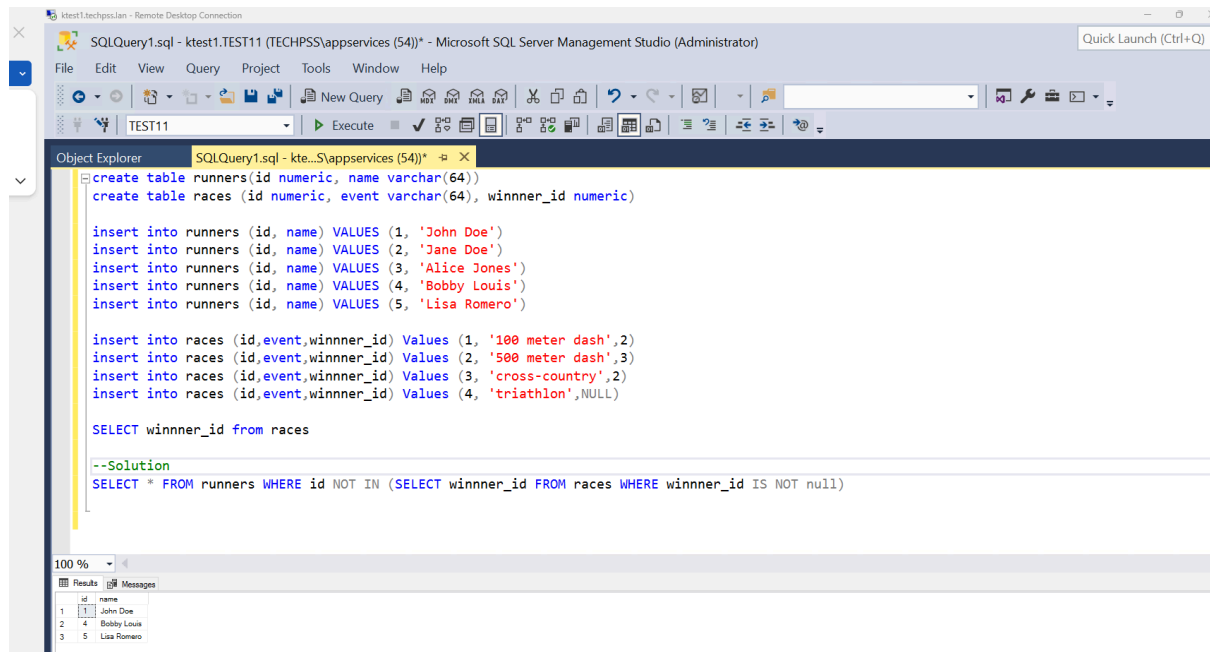
```
insert into runners (id, name) VALUES (1, 'John Doe')
insert into runners (id, name) VALUES (2, 'Jane Doe')
insert into runners (id, name) VALUES (3, 'Alice Jones')
insert into runners (id, name) VALUES (4, 'Bobby Louis')
insert into runners (id, name) VALUES (5, 'Lisa Romero')
```

```
insert into races (id,event,winnner_id) Values (1, '100 meter dash',2)
insert into races (id,event,winnner_id) Values (2, '500 meter dash',3)
insert into races (id,event,winnner_id) Values (3, 'cross-country',2)
insert into races (id,event,winnner_id) Values (4, 'triathlon',NULL)
```

```
SELECT winnner_id from races
```

## --Solution

**SELECT \* FROM runners WHERE id NOT IN (SELECT winner\_id FROM races WHERE winner\_id IS NOT null)**



## Question 2 :

**create table test\_a (id numeric);**

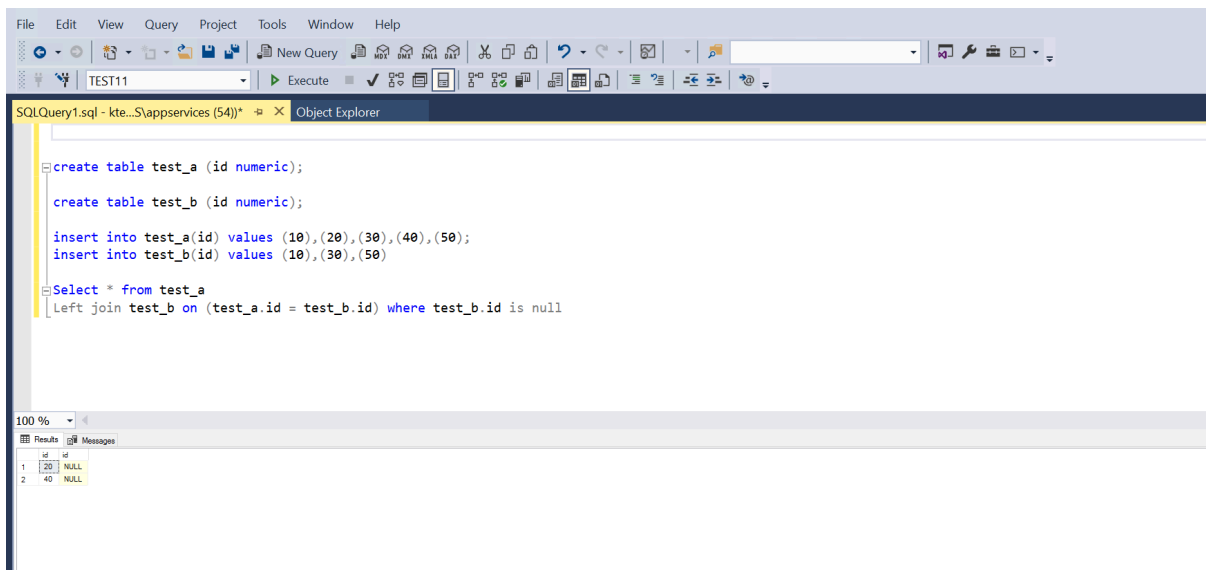
**create table test\_b (id numeric);**

**insert into test\_a(id) values (10),(20),(30),(40),(50);**

**insert into test\_b(id) values (10),(30),(50)**

**Select \* from test\_a**

**Left join test\_b on (test\_a.id = test\_b.id) where test\_b.id is null**



### Question 3 :

Create table users(user\_id numeric, username varchar(64))  
 insert into users(user\_id, username) VALUES (1,'John Doe')  
 insert into users(user\_id, username) VALUES (2,'Jane Doe')  
 insert into users(user\_id, username) VALUES (3,'Alice Jones')  
 insert into users(user\_id, username) VALUES (1,'Lisa Romero')

Create table training\_details(user\_training\_id numeric, user\_id numeric, training\_id numeric, training\_date varchar(64))  
 Insert into training\_details (user\_training\_id, user\_id, training\_id, training\_date) VALUES (1,1,1,'2015-08-02')  
 Insert into training\_details (user\_training\_id, user\_id, training\_id, training\_date) VALUES (2,2,1,'2015-08-03')  
 Insert into training\_details (user\_training\_id, user\_id, training\_id, training\_date) VALUES (3,3,2,'2015-08-02')  
 Insert into training\_details (user\_training\_id, user\_id, training\_id, training\_date) VALUES (4,4,2,'2015-08-04')  
 Insert into training\_details (user\_training\_id, user\_id, training\_id, training\_date) VALUES (5,2,2,'2015-08-03')  
 Insert into training\_details (user\_training\_id, user\_id, training\_id, training\_date) VALUES (6,1,1,'2015-08-02')  
 Insert into training\_details (user\_training\_id, user\_id, training\_id, training\_date) VALUES (7,3,2,'2015-08-04')

```

Insert into training_details (user_training_id, user_id, training_id,
training_date) VALUES (8,4,3,'2015-08-03')
Insert into training_details (user_training_id, user_id, training_id,
training_date) VALUES (9,1,4,'2015-08-03')
Insert into training_details (user_training_id, user_id, training_id,
training_date) VALUES (10,3,1,'2015-08-02')
Insert into training_details (user_training_id, user_id, training_id,
training_date) VALUES (11,4,2,'2015-08-04')
Insert into training_details (user_training_id, user_id, training_id,
training_date) VALUES (12,3,2,'2015-08-02')
Insert into training_details (user_training_id, user_id, training_id,
training_date) VALUES (13,1,1,'2015-08-02')
Insert into training_details (user_training_id, user_id, training_id,
training_date) VALUES (14,4,3,'2015-08-03')

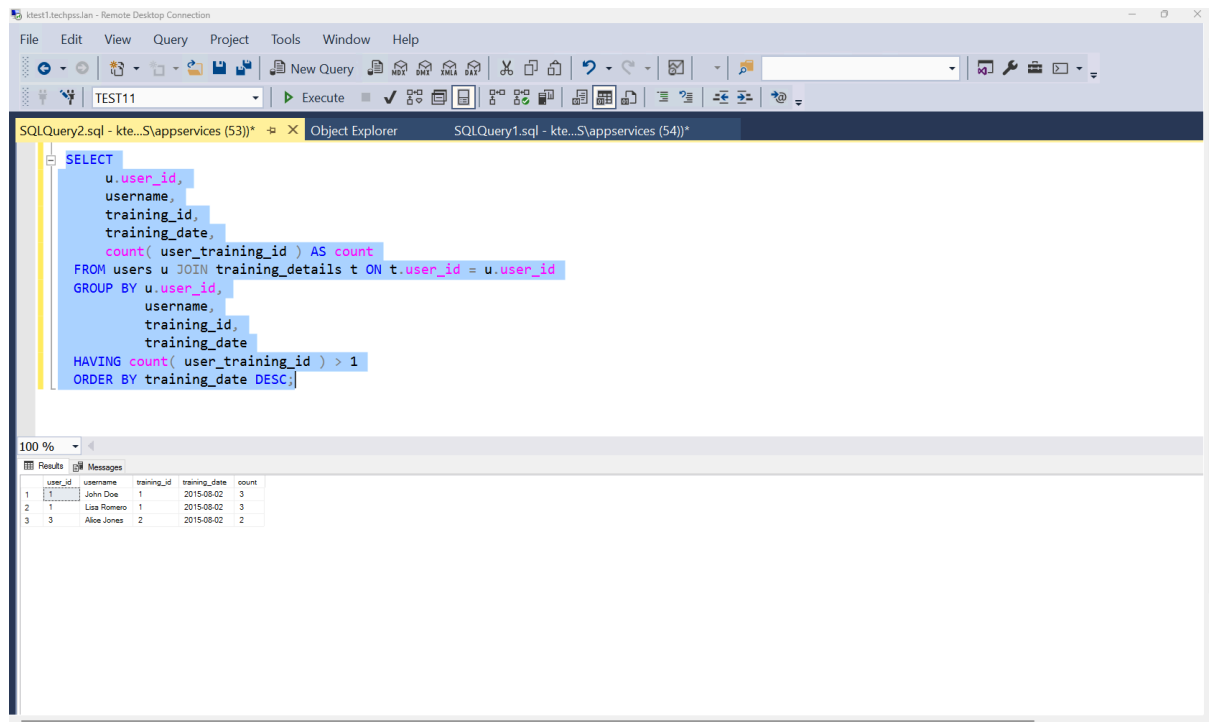
```

### **Solution :**

```

SELECT
    u.user_id,
    username,
    training_id,
    training_date,
    count( user_training_id ) AS count
FROM users u JOIN training_details t ON t.user_id = u.user_id
GROUP BY u.user_id,
    username,
    training_id,
    training_date
HAVING count( user_training_id ) > 1
ORDER BY training_date DESC;

```



#### Question 4 :

#### Solution :

```
select b.emp_id as "Manager_Id",
       b.emp_name as "Manager",
       avg(a.salary) as "Average_Salary_Under_Manager"
from Employee a,
     Employee b
where a.manager_id = b.emp_id
group by b.emp_id, b.emp_name
order by b.emp_id;
```