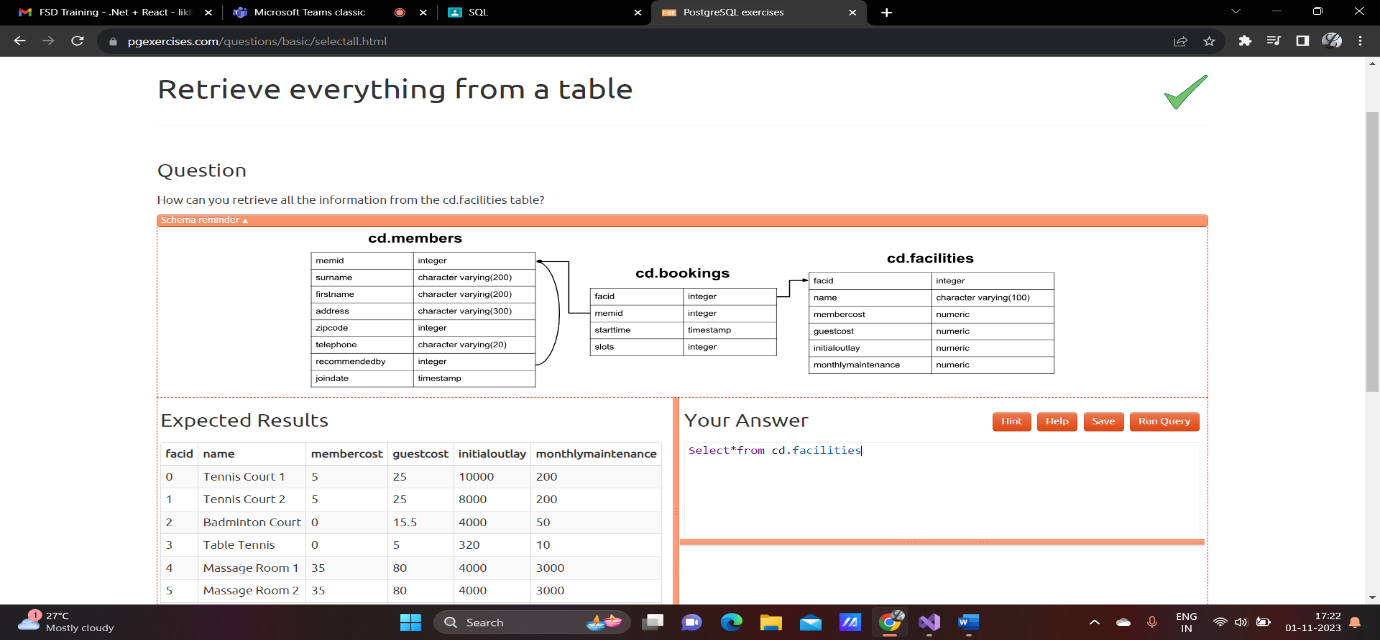
Retrieve everything from a table

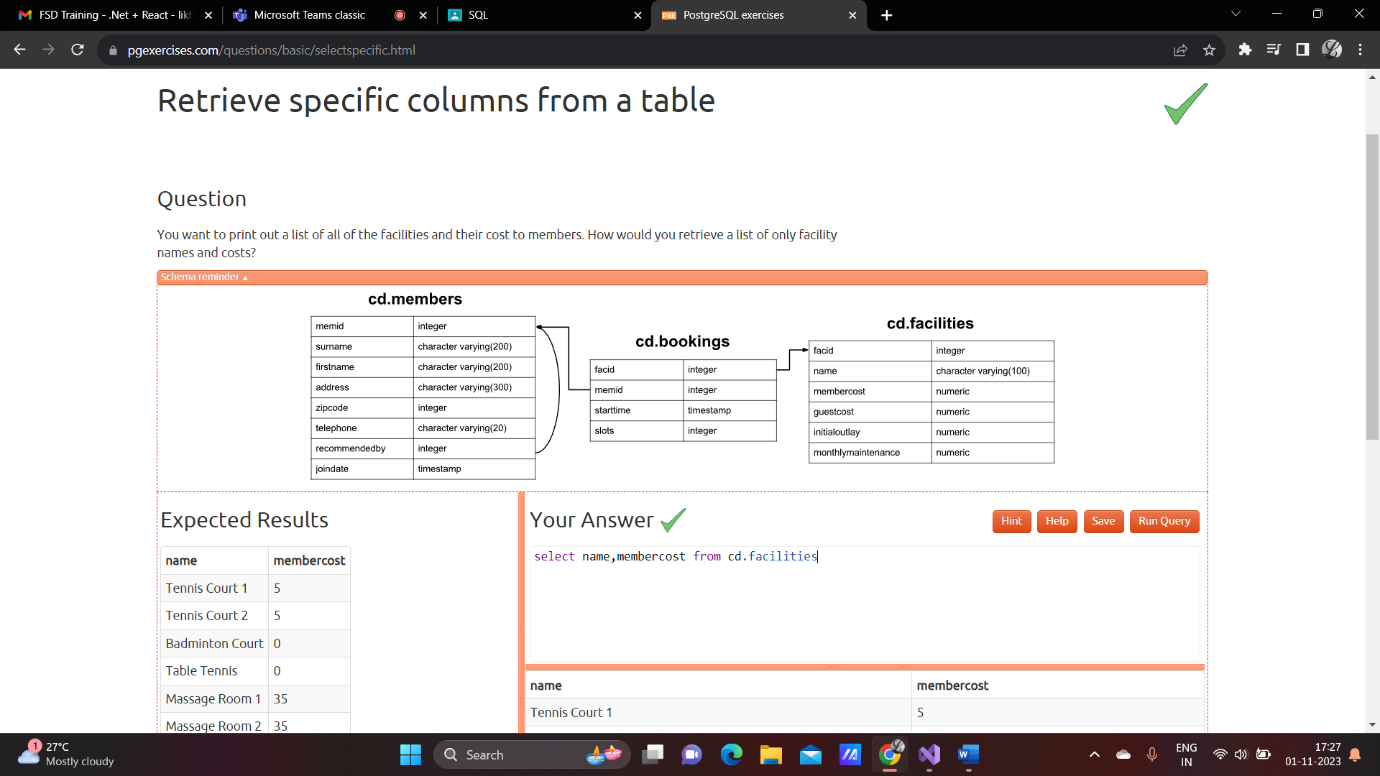
Code: Select\*from cd.facilities



Retrieve specific columns from a table

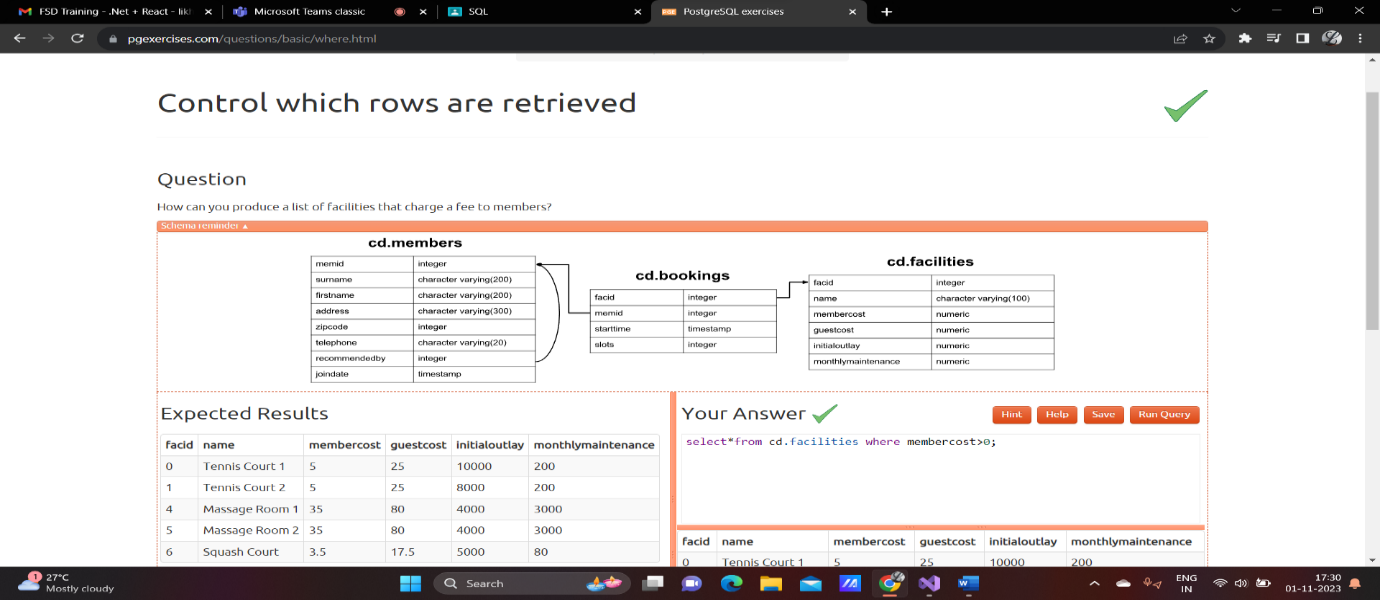
Code:

select name,membercost from cd.facilities



Control which rows are retervied

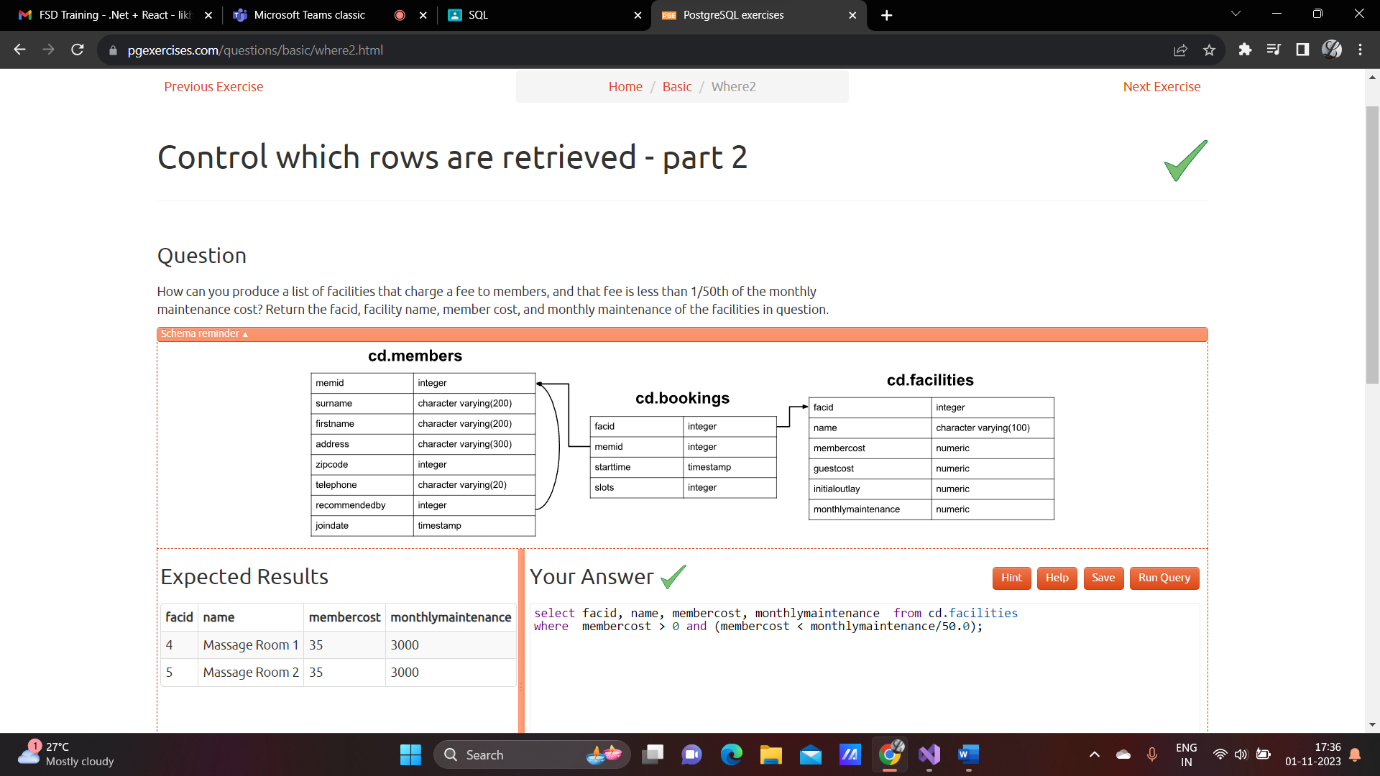
Code: select\*from cd.facilities where membercost>0;



Control which rows are retervied-part-2

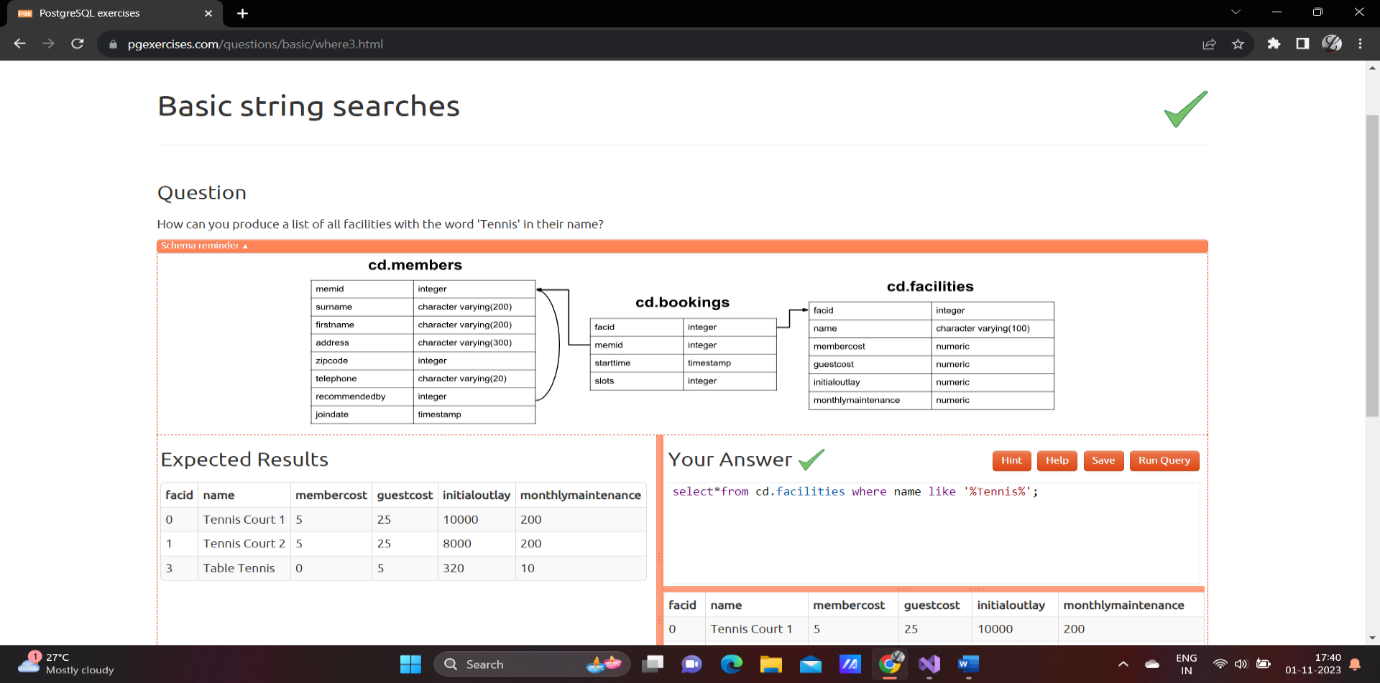
Code: select facid, name, membercost, monthlymaintenance from cd.facilities

where membercost > 0 and (membercost < monthlymaintenance/50.0);



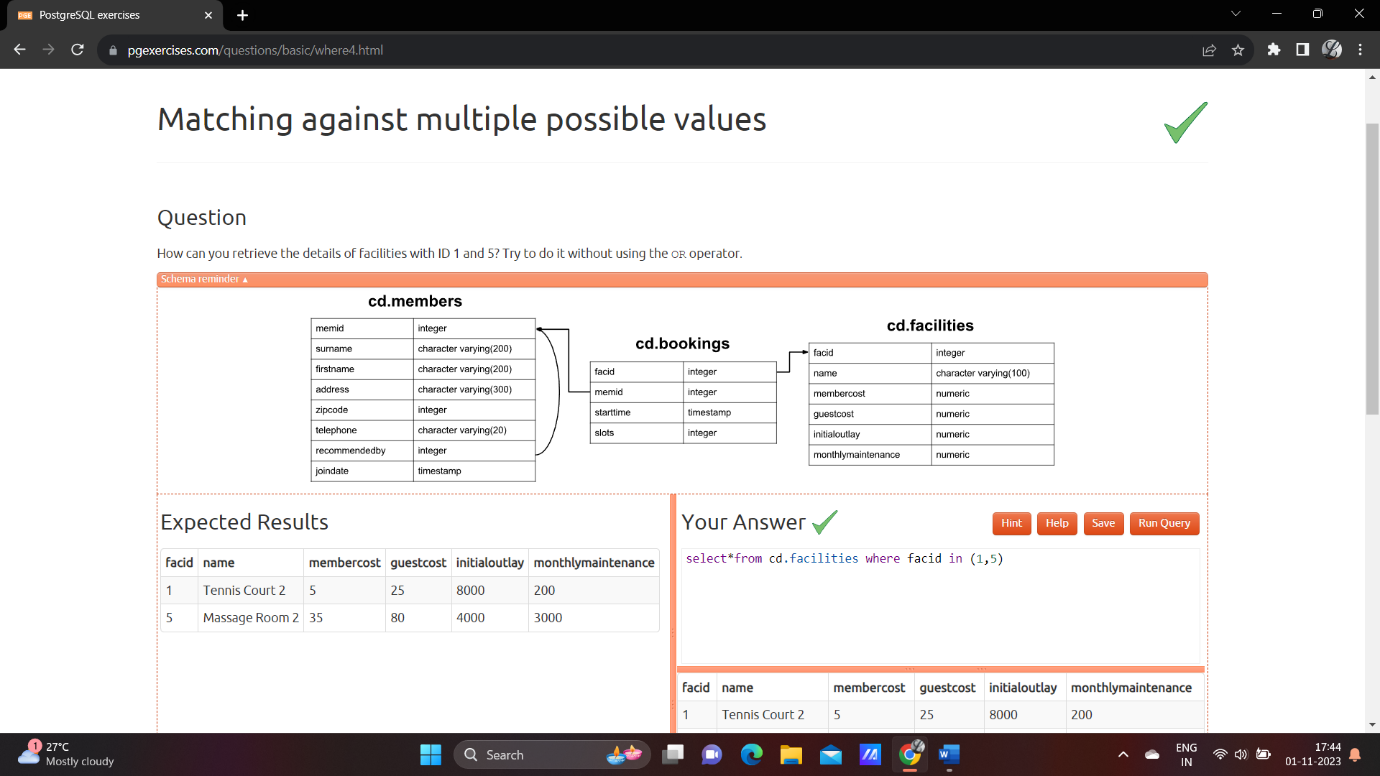
Basic string searches

Code: select\*from cd.facilities where name like '%Tennis%';



Matching against multiple possible values

Code: select\*from cd.facilities where facid in (1,5)



Classify results into buckets

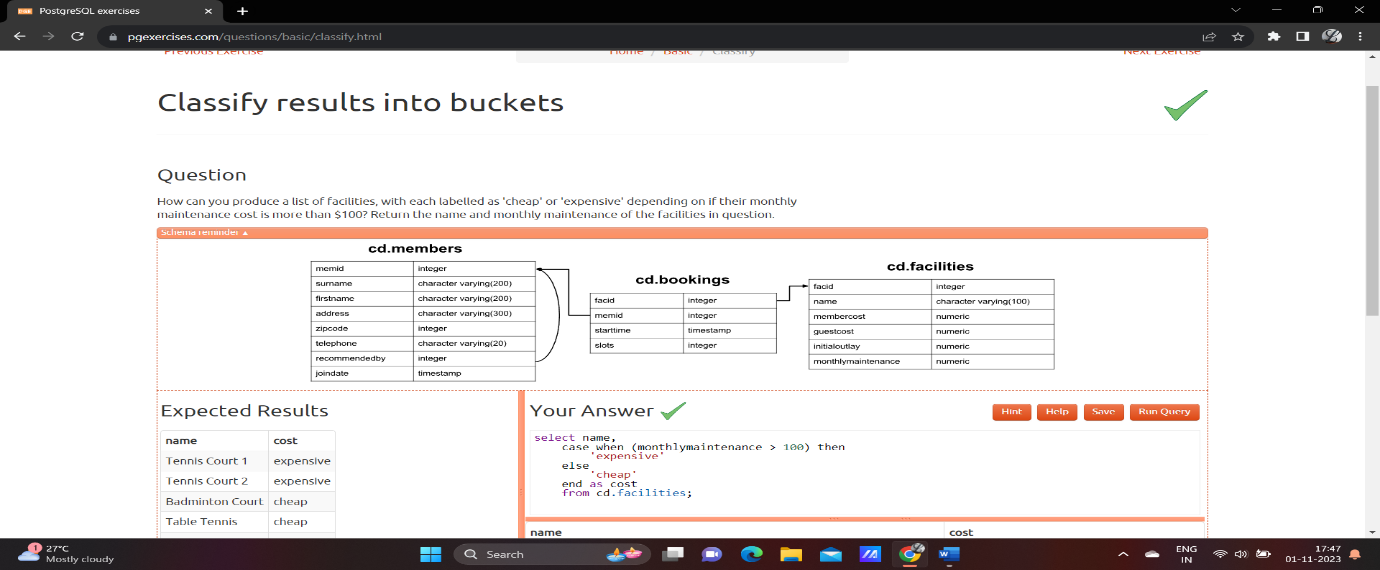
Code: select name,

case when (monthlymaintenance > 100) then'expensive'

else 'cheap'

end as cost

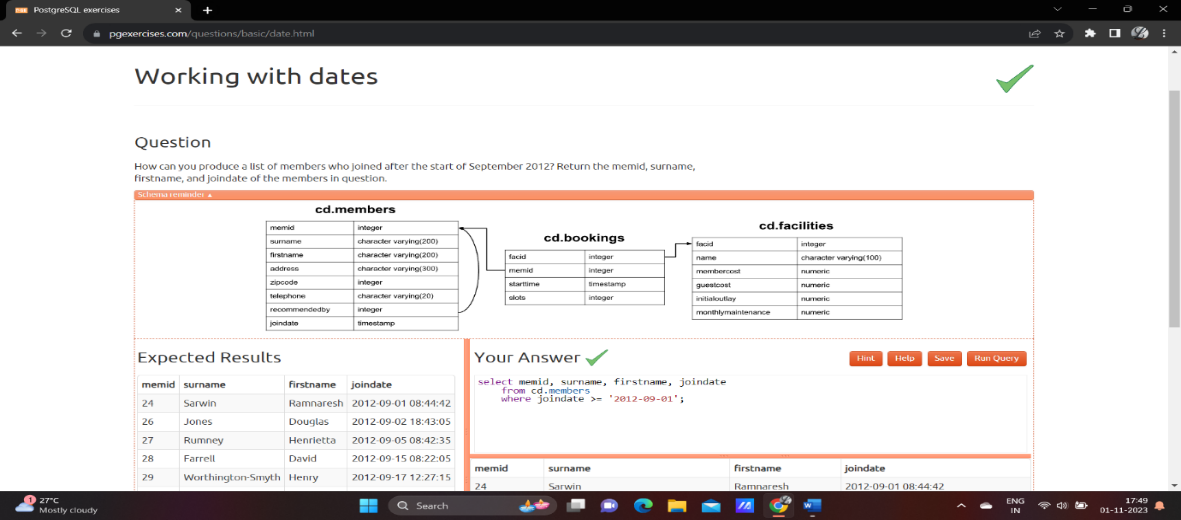
from cd.facilities;



Working with date

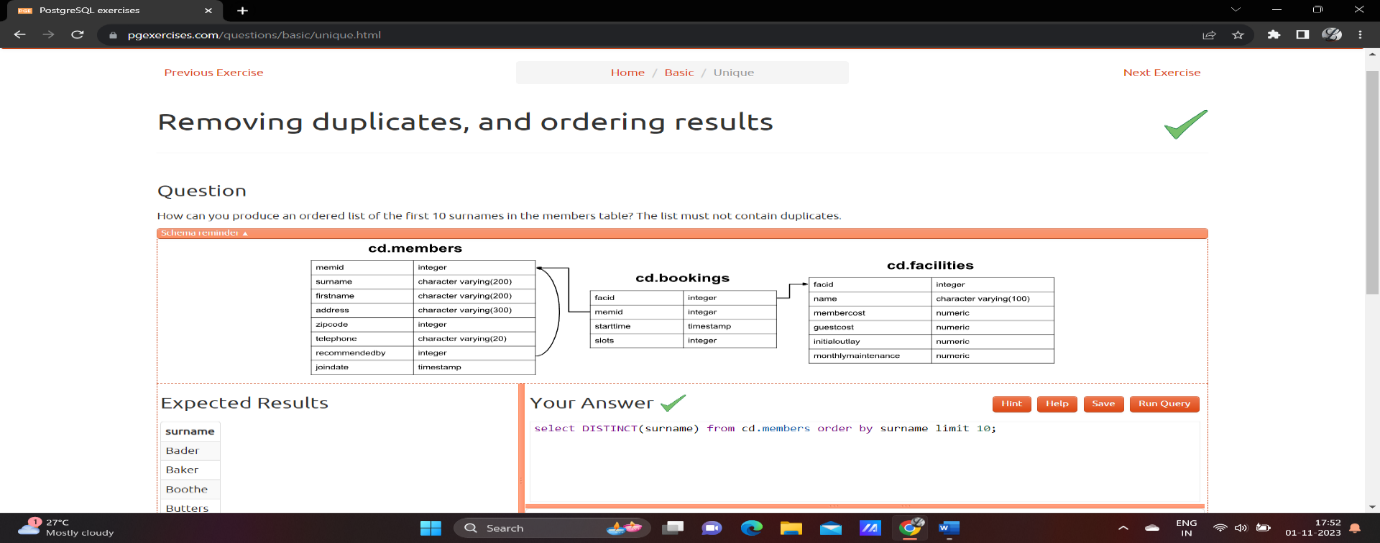
Code: select memid, surname, firstname, joindate from cd.members

where joindate >= '2012-09-01';



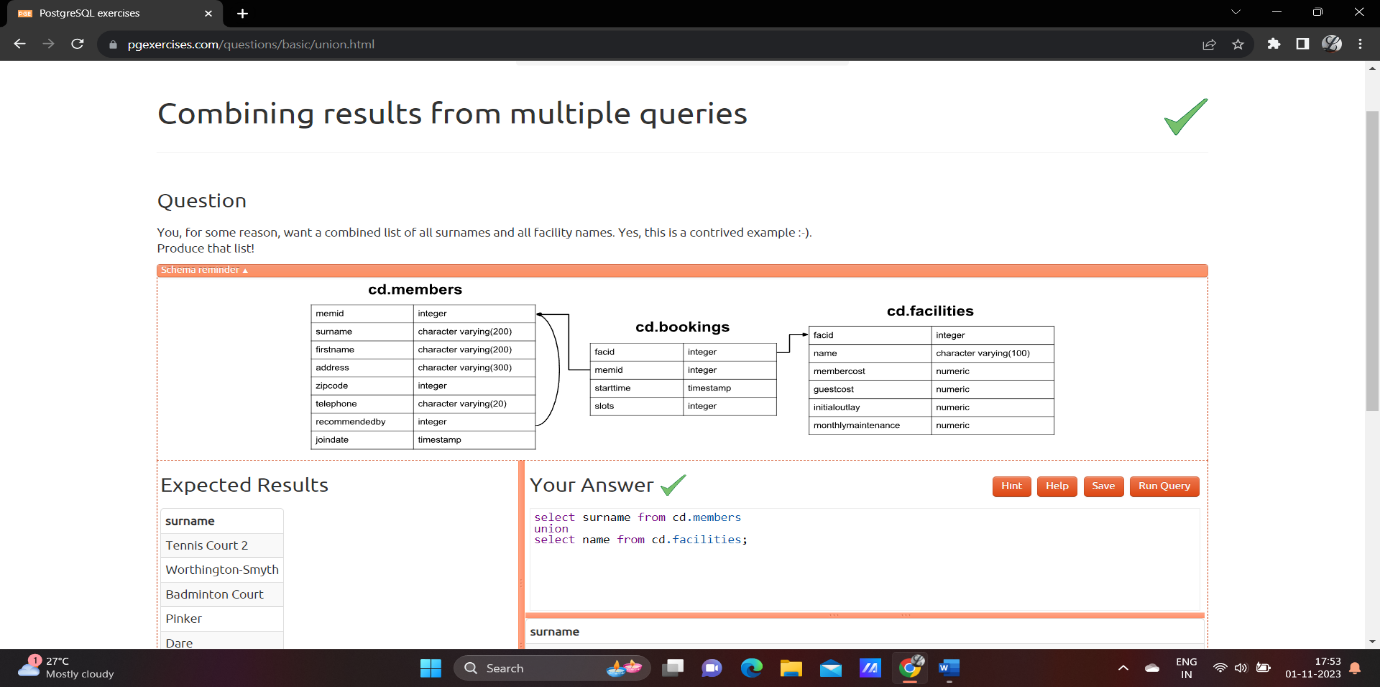
Removing duplicates and ordering results

Code: select DISTINCT(surname) from cd.members order by surname limit 10;



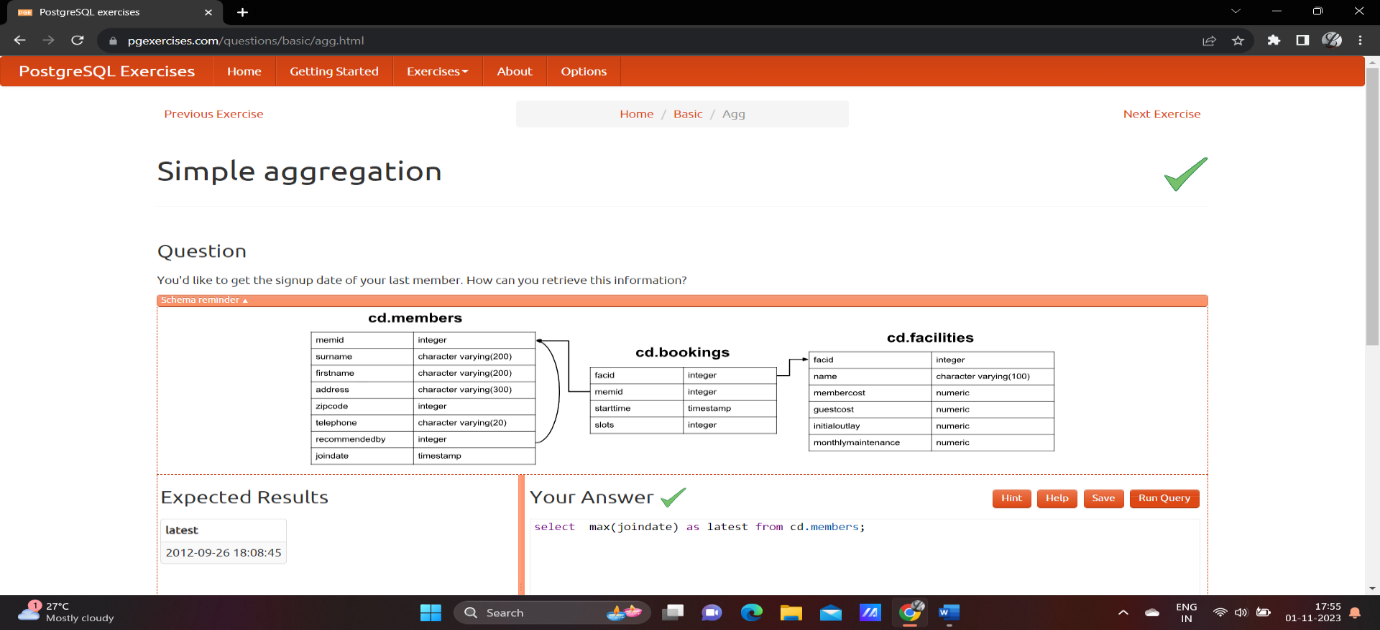
Combining results for multiple queries

Code: select surname from cd.members union select name from cd.facilities;



Simple aggregation

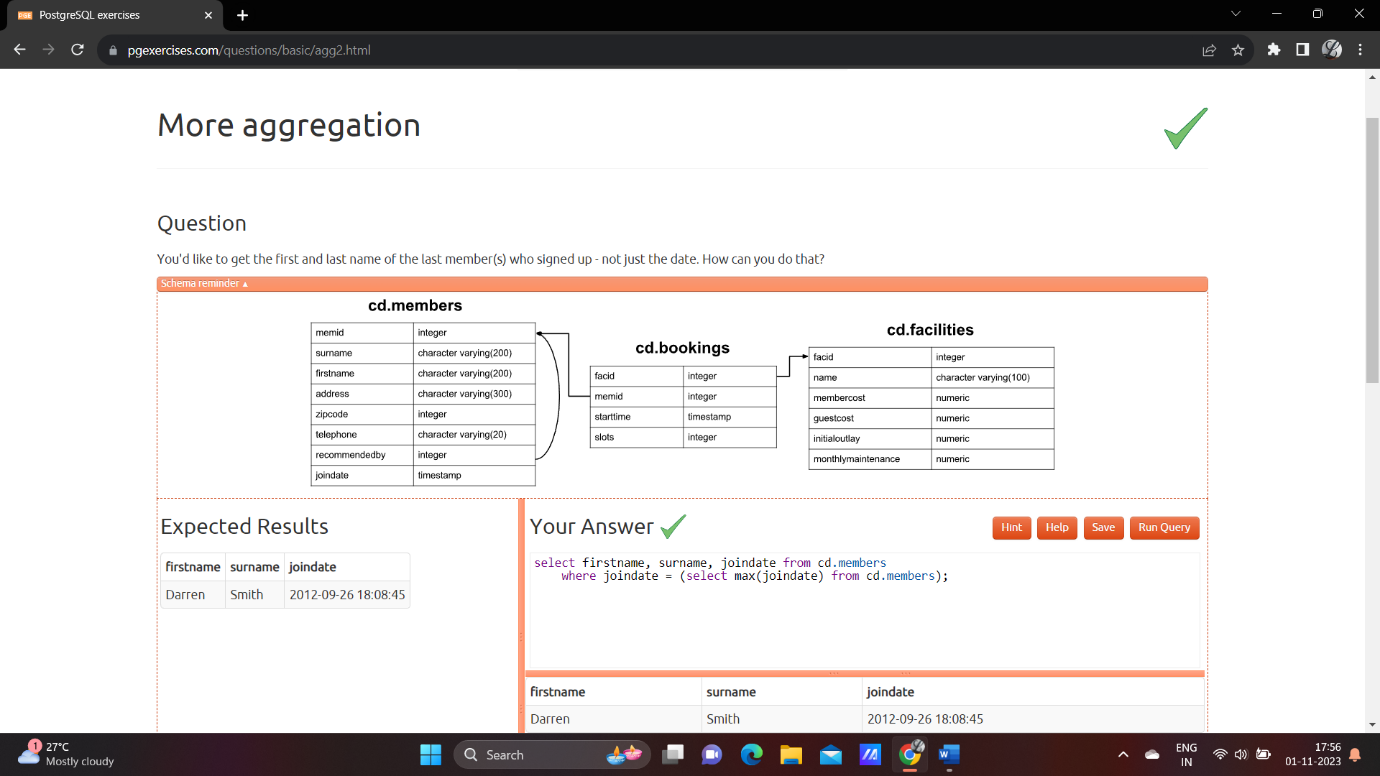
Code: select max(joindate) as latest from cd.members;



More aggregation

Code: select firstname, surname, joindate from cd.members

where joindate = (select max(joindate) from cd.members);



**Joins &sub query**

Produce alist of all members who have used a tennis court

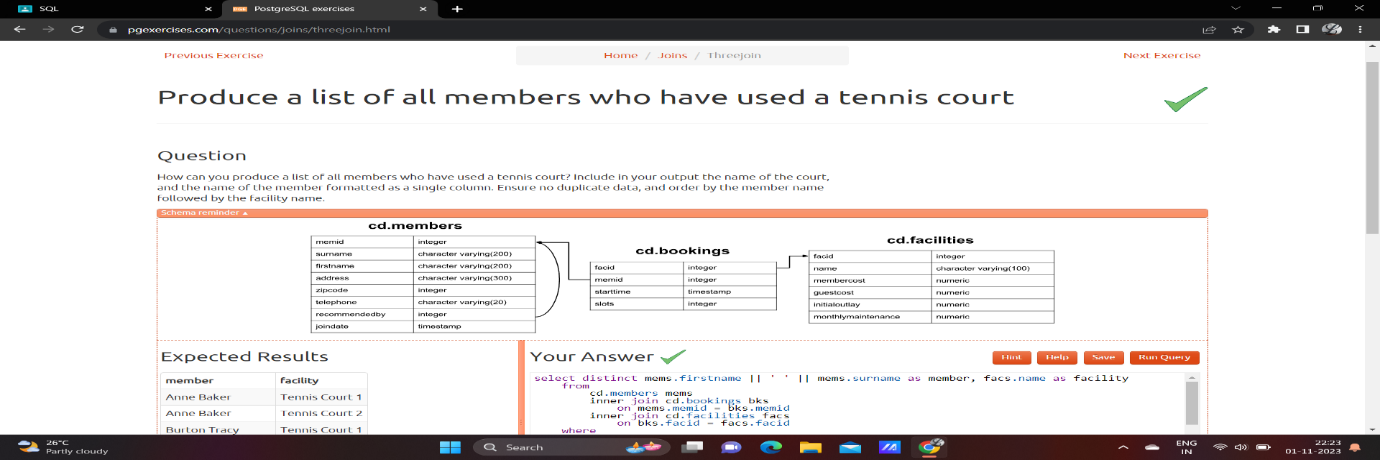
Code: select distinct recs.firstname as firstname, recs.surname as surname

from cd.members mems

inner join cd.members recs

on recs.memid = mems.recommendedby

order by surname, firstname;



Work out the start times of booking for tennis courts

Code: select bks.starttime as start, facs.name as name

from cd.facilities facs

inner join cd.bookings bks

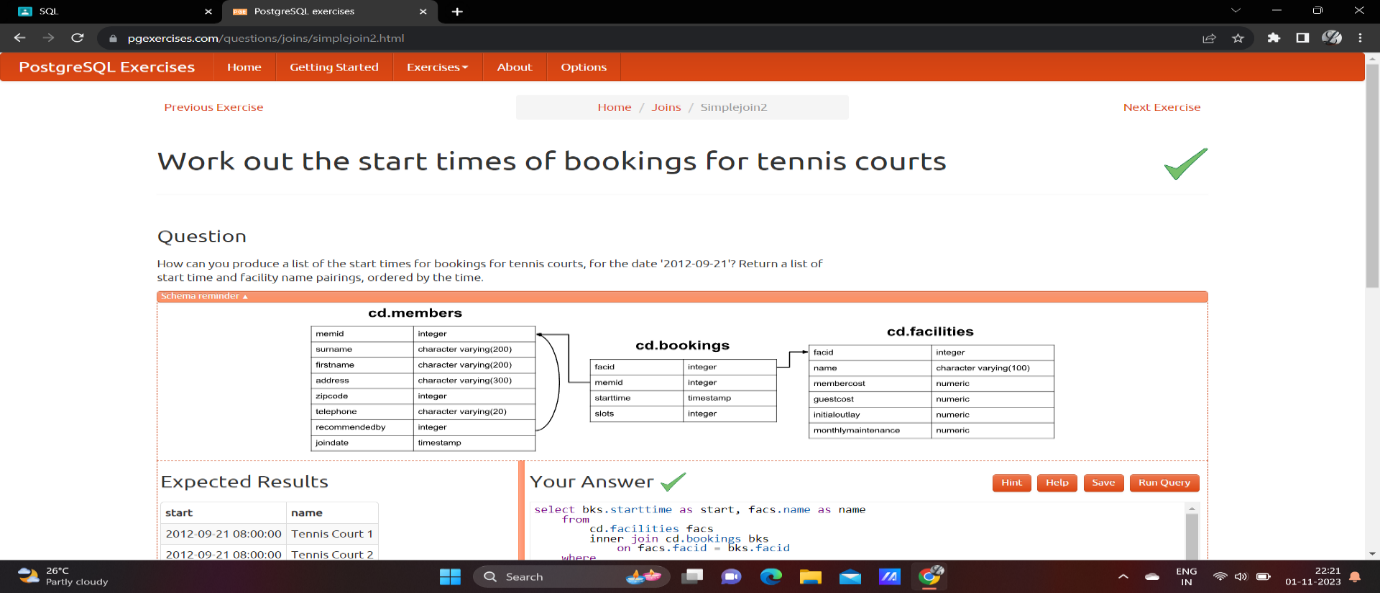
on facs.facid = bks.facid

where facs.name in ('Tennis Court 2','Tennis Court 1') and

bks.starttime >= '2012-09-21' and

bks.starttime < '2012-09-22'

order by bks.starttime;



Produce a list of all members who have recommended another member

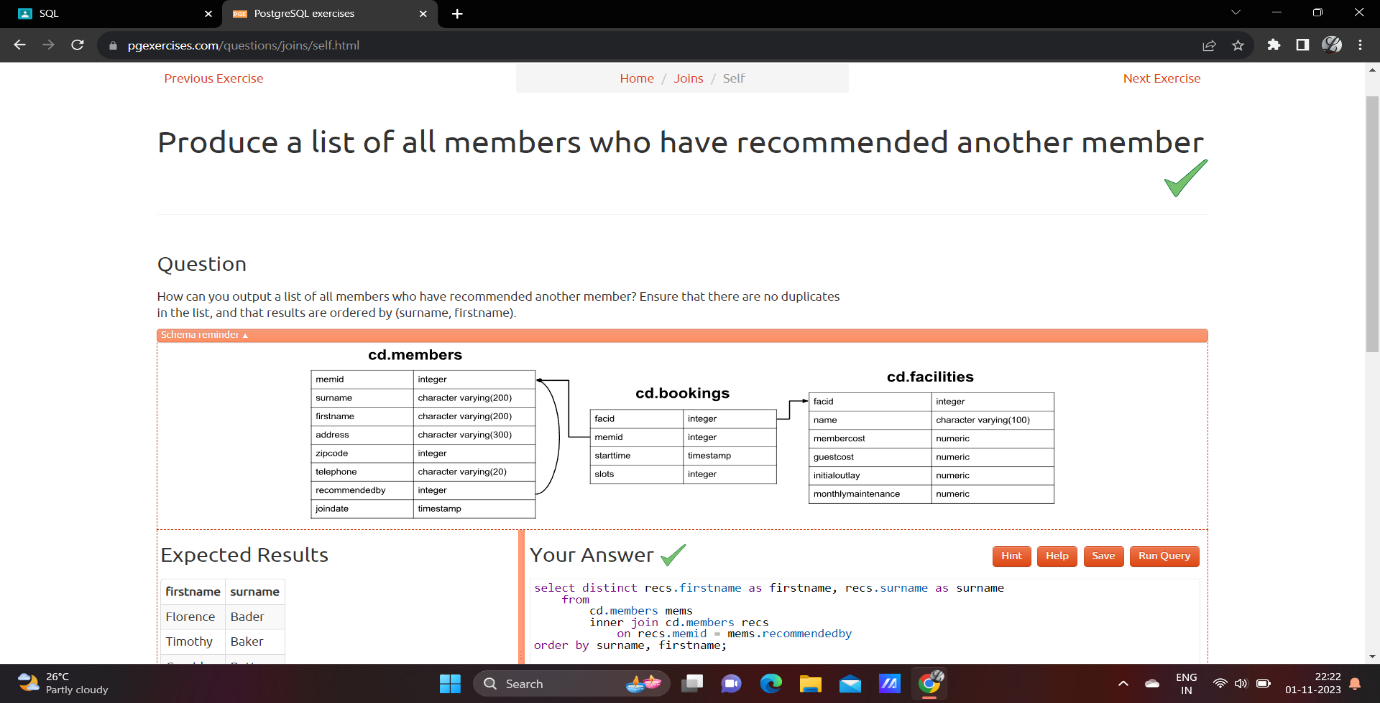
Code: select mems.firstname as memfname, mems.surname as memsname, recs.firstname as recfname, recs.surname as recsname

from cd.members mems

left outer join cd.members recs

on recs.memid = mems.recommendedby

order by memsname, memfname;



Produce a list of all members, along with their recommender

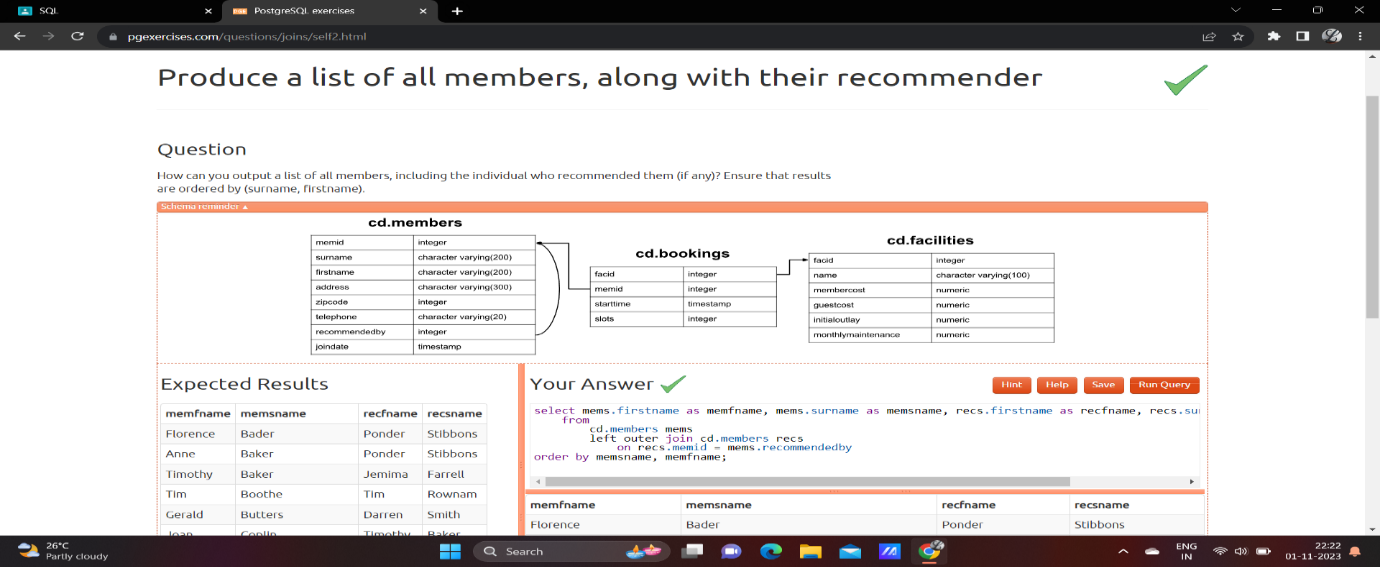
Code: select mems.firstname as memfname, mems.surname as memsname, recs.firstname as recfname, recs.surname as recsname

from cd.members mems

left outer join cd.members recs

on recs.memid = mems.recommendedby

order by memsname, memfname;



Produce a list of costly bookings

Code:

select mems.firstname || ' ' || mems.surname as member,

facs.name as facility,

case when mems.memid = 0 then bks.slots\*facs.guestcost

else bks.slots\*facs.membercost

end as cost

from cd.members mems

inner join cd.bookings on mems.memid = bks

inner join cd.facilities facs on bks.facid = facs.facid

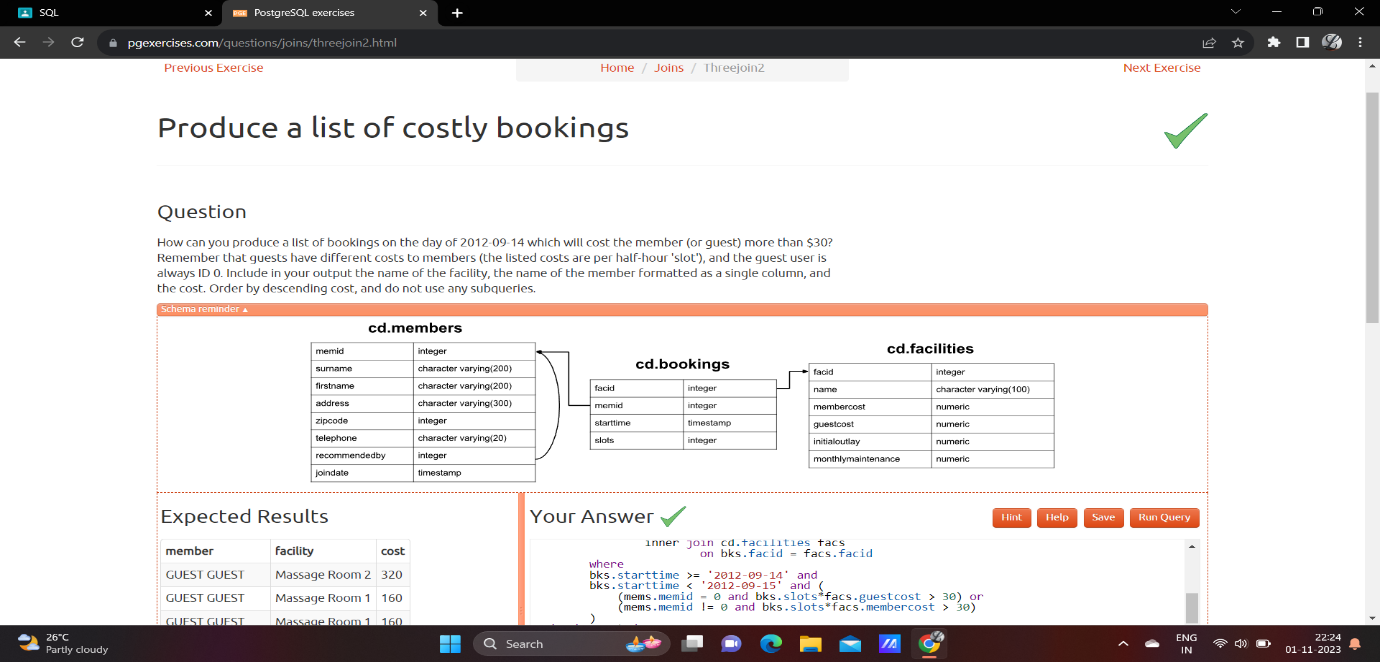
where bks.starttime >= '2012-09-14' and

bks.starttime < '2012-09-15' and (

(mems.memid = 0 and bks.slots\*facs.guestcost > 30) or

(mems.memid != 0 and bks.slots\*facs.membercost > 30))

order by cost desc;



Produce a list of all members, along with their recommender, using no joins

Code:

select distinct mems.firstname || ' ' || mems.surname as member,

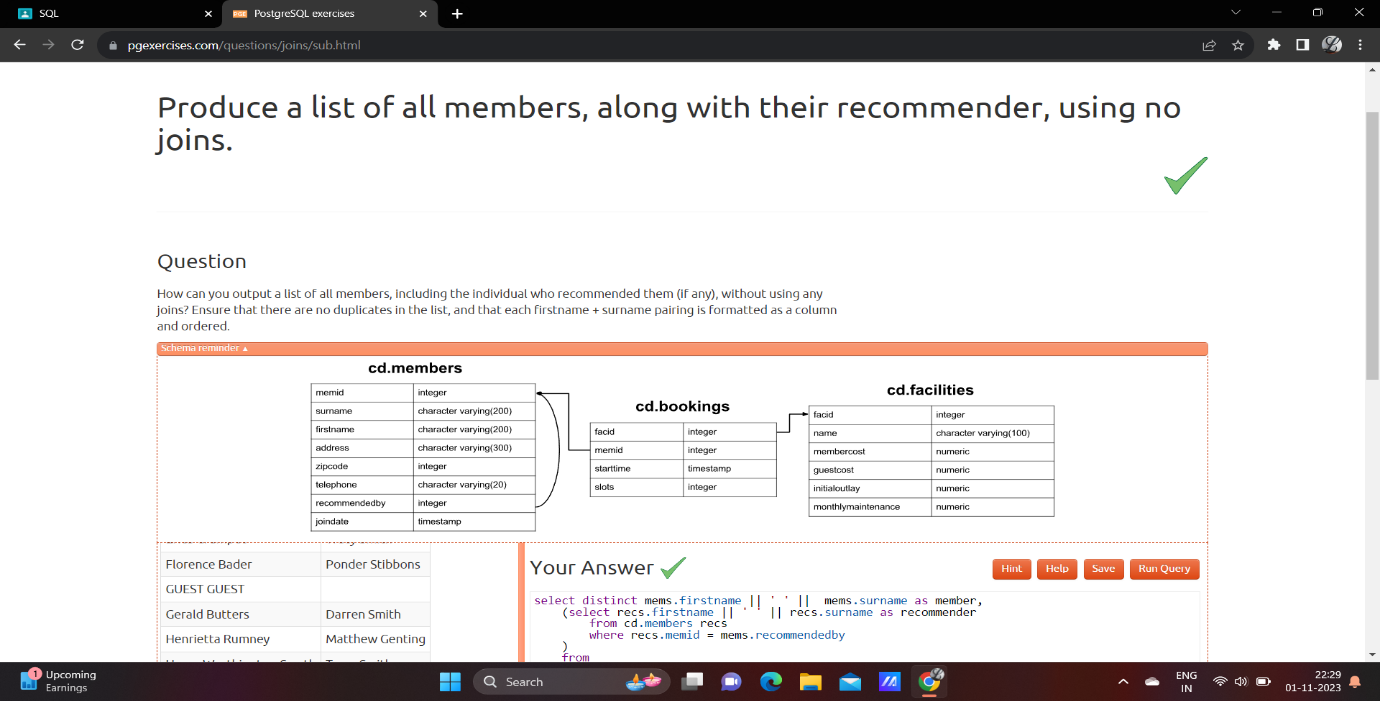
(select recs.firstname || ' ' || recs.surname as recommender

from cd.members recs

where recs.memid = mems.recommendedby)

from cd.members mems

order by member;



[Produce a list of costly bookings, using a subquery](https://pgexercises.com/questions/joins/tjsub.html)

Code: select member, facility, cost from (

select

mems.firstname || ' ' || mems.surname as member,

facs.name as facility,

case when mems.memid = 0 then

bks.slots\*facs.guestcost

else bks.slots\*facs.membercost

end as cost

from cd.members mems

inner join cd.bookings bks on mems.memid = bks.memid

inner join cd.facilities facs on bks.facid = facs.facid

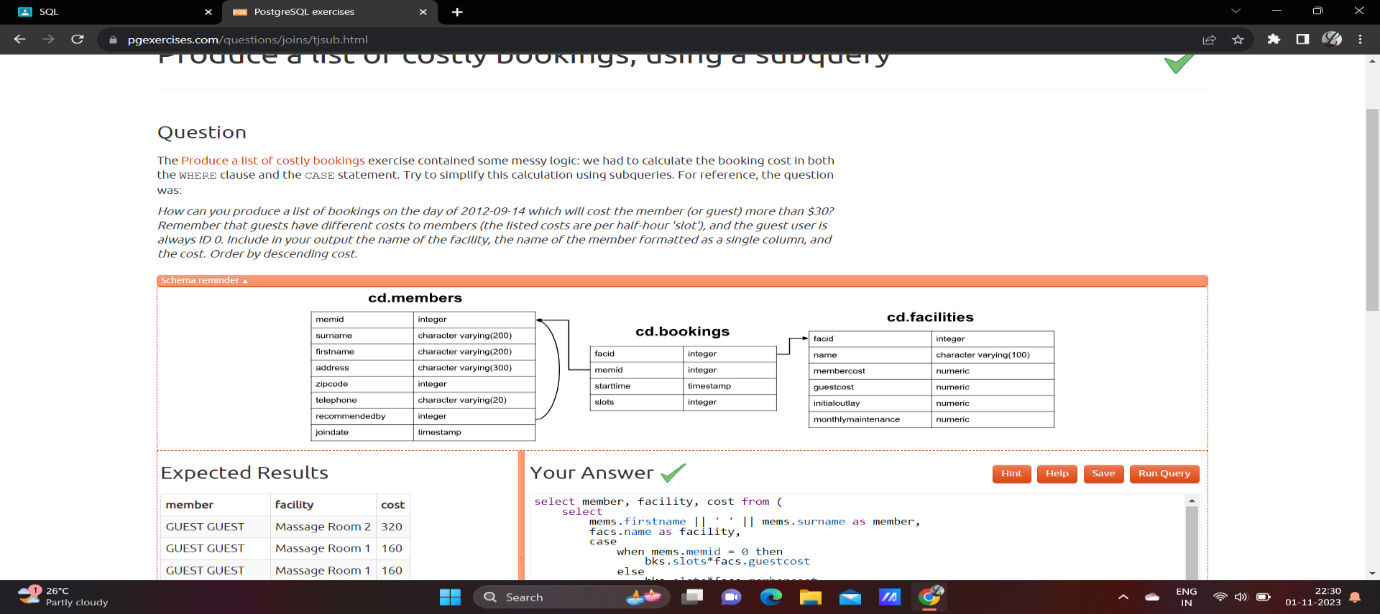
where

bks.starttime >= '2012-09-14' and

bks.starttime < '2012-09-15') as bookings

where cost > 30

order by cost desc;



Retrieve the start times of members bookings

Code: select bk.starttime from cd.bookings bk inner join cd.members me on me.memid=bk.memid where me.firstname='David' and me.surname='Farrell';

