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1 Week 1: Players

1.1 Display player name, team id, stadium, and mdate for every German player

Code.

```
select goal.player, goal.teamid, game.stadium, game.mdate
from goal join game on goal.matchid=game.id
where goal.teamid='GER'
```

Output.

"PLAYER"	"TEAMID"	"STADIUM"	"MDATE"
"Mario Gmez"	"GER"	"Arena Lviv"	"09-JUN-12"
"Mario Gmez"	"GER"	"Metalist Stadium"	"13-JUN-12"
"Mario Gmez"	"GER"	"Metalist Stadium"	"13-JUN-12"
"Lars Bender"	"GER"	"Arena Lviv"	"17-JUN-12"
"Lukas Podolski"	"GER"	"Arena Lviv"	"17-JUN-12"

1.2 Show team1 and team2 and player for every goal scored by a player named 'Mario'

Code.

```
select game.team1, game.team2, goal.player from goal
join game on goal.matchid=game.id where goal.player like 'Mario_%'
```

Output.

"TEAM1"	"TEAM2"	"PLAYER"
"GER"	"POR"	"Mario Gmez"
"NED"	"GER"	"Mario Gmez"
"NED"	"GER"	"Mario Gmez"
"IRL"	"CRO"	"Mario Mandukic"
"IRL"	"CRO"	"Mario Mandukic"
"ITA"	"CRO"	"Mario Mandukic"
"ITA"	"IRL"	"Mario Balotelli"

1.3 Show player, teamid, coach, gtime, for all goals scored in the first 10 mins

Code.

```
select goal.player, goal.teamid, eteam.coach, goal.gtime
from goal join eteam on goal.teamid=eteam.id where goal.gtime <= 10
```

Output.

"PLAYER"	"TEAMID"	"COACH"	"GTIME"
"Vclav Pilar"	"CZE"	"Michal Blek"	"6"
"Petr Jircek"	"CZE"	"Michal Blek"	"3"
"Fernando Torres"	"ESP"	"Vicente del Bosque"	"4"
"Mario Mandukic"	"CRO"	"Slaven Bilic"	"3"

1.4 List the player for every goal scored in a game whre the stadium was 'National Stadium, Warsaw'

Code.

```
select goal.player
from game join goal
on game.id=goal.matchid
where game.stadium='National Stadium , Warsaw '
```

Output.

"PLAYER"
"Robert Lewandowski"
"Dimitris Salpingidis"
"Jakub Blaszczykowski"
"Alan Dzagoev"
"Giorgos Karagounis"

1.5 Show the name of the player who scored a goal against Germany('GER')

Code.

```
select goal.player
from game join goal
on goal.matchid=game.id
where (game.team2='GER' or game.team1='GER') and goal.teamid!='GER'
```

Output.

"PLAYER"
"Robin van Persie"
"Michael Krohn-Dehli"

1.6 Show the stadium and the number of goals scored in each stadium. Use count()

Code.

```
select game.stadium, count(*)
from goal join game
on goal.matchid=game.id
group by game.stadium
order by count(*) asc
```

Output.

"STADIUM"	"COUNT(*)"
"Donbass Arena"	"2"
"Olimpiyskiy National Sports Complex"	"3"
"Metalist Stadium"	"7"
"PGE Arena Gdansk"	"7"
"Stadion Miejski (Poznan)"	"8"
"Stadion Miejski (Wroclaw)"	"9"
"Arena Lviv"	"9"

1.7 List dates of all matches with 'Fernando Santos' as team1 coach

Code.

```
select game.mdate, eteam.teamname
from game join eteam
on game.team1=etteam.id
where eteam.coach='Fernando_Santos '
```

Output.

"PLAYER"
"Robert Lewandowski"
"Dimitris Salpingidis"
"Jakub Blaszczykowski"
"Alan Dzagoev"
"Giorgos Karagounis"

2 Week 2: Joins

2.1 Insert a tuple in eteam

Code.

```
insert into eteam (id, teamname, coach) values ( 'ARG', 'Argentina',
'Diego_Maradona' )
```

```
1 row(s) inserted.
```

```
0.13 seconds
```

2.2 Show the matchdate, stadium, player name, goal time for match ids 1019 and 1021

Code.

```
select game.mdate, game.stadium, goal.player, goal.gtime
from game left join goal
on goal.matchid=game.id
where game.id=1019 or game.id=1021
```

Output.

"MDATE"	"STADIUM"	"PLAYER"	"GTIME"
"11-JUN-12"	"Donbass Arena"	"Samir Nasri"	"39"
"11-JUN-12"	"Donbass Arena"	"Joleon Lescott"	"30"
"15-JUN-12"	"Donbass Arena"	" "	" "

2.3 Show all the goal time,player, stadium where first team was Germany

Code.

```
select goal.gtime, goal.player, game.stadium
from game left join goal
on goal.matchid=game.id
where game.team1='GER'
```

Output.

"GTIME"	"PLAYER"	"STADIUM"
"72"	"Mario Gmez"	"Arena Lviv"
" "	" "	"PGE Arena Gdansk"

2.4 Show the matchdate,stadium,teamname where Diego Maradona was the coach. Use right join

Code.

```
select game.mdate, game.stadium, eteam.teamname
from game right join eteam
on game.team1=etteam.id or game.team2=etteam.id
where eteam.coach='Diego Maradona'
```

Output.

"MDATE"	"STADIUM"	"TEAMNAME"
" "	" "	"Argentina"

2.5 Show id,matchdate,stadium,coach and team name for all team2. Use full outer join

Code.

```
select game.id, game.mdate, game.stadium, eteam.coach, eteam.teamname
from game full outer join eteam
on game.team2=etteam.id
```

Output.

"ID"	"MDATE"	"STADIUM"	"COACH"	"TEAMNA"
"1005"	"16-JUN-12"	"Stadion Miejski (Wroclaw)"	"Franciszek Smuda"	"Poland"
"1003"	"12-JUN-12"	"Stadion Miejski (Wroclaw)"	"Michal Blek"	"Czech Rep"
"1002"	"08-JUN-12"	"Stadion Miejski (Wroclaw)"	"Michal Blek"	"Czech Rep"
"1026"	"22-JUN-12"	"PGE Arena Gdansk"	"Fernando Santos"	"Greece"
"1011"	"17-JUN-12"	"Metalist Stadium"	"Bert van Marwijk"	"Netherland"
"1007"	"09-JUN-12"	"Metalist Stadium"	"Morten Olsen"	"Denmark"
"1012"	"17-JUN-12"	"Arena Lviv"	"Joachim Lw"	"Germany"
"1010"	"13-JUN-12"	"Metalist Stadium"	"Joachim Lw"	"Germany"
"1009"	"13-JUN-12"	"Arena Lviv"	"Paulo Bento"	"Portugal"
"1008"	"09-JUN-12"	"Arena Lviv"	"Paulo Bento"	"Portugal"
"1029"	"27-JUN-12"	"Donbass Arena"	"Vicente del Bosque"	"Spain"
"1017"	"18-JUN-12"	"PGE Arena Gdansk"	"Vicente del Bosque"	"Spain"
"1031"	"01-JUL-12"	"Olimpiyskiy National Sports Complex"	"Cesare Prandelli"	"Italy"
"1028"	"24-JUN-12"	"Olimpiyskiy National Sports Complex"	"Cesare Prandelli"	"Italy"
"1013"	"10-JUN-12"	"PGE Arena Gdansk"	"Cesare Prandelli"	"Italy"
"1018"	"18-JUN-12"	"Stadion Miejski (Poznan)"	"Giovanni Trapattoni"	"Republic o"
"1016"	"14-JUN-12"	"PGE Arena Gdansk"	"Giovanni Trapattoni"	"Republic o"
"1015"	"14-JUN-12"	"Stadion Miejski (Poznan)"	"Slaven Bilic"	"Croatia"
"1014"	"10-JUN-12"	"Stadion Miejski (Poznan)"	"Slaven Bilic"	"Croatia"
"1023"	"19-JUN-12"	"Donbass Arena"	"Oleh Blokhin"	"Ukraine"
"1020"	"11-JUN-12"	"Olimpiyskiy National Sports Complex"	"Erik Hamrn"	"Sweden"
"1022"	"15-JUN-12"	"Olimpiyskiy National Sports Complex"	"Roy Hodgson"	"England"
"1019"	"11-JUN-12"	"Donbass Arena"	"Roy Hodgson"	"England"
"1027"	"23-JUN-12"	"Donbass Arena"	"Laurent Blanc"	"France"
"1024"	"19-JUN-12"	"Olimpiyskiy National Sports Complex"	"Laurent Blanc"	"France"
"1021"	"15-JUN-12"	"Donbass Arena"	"Laurent Blanc"	"France"
"	"	"	"Diego Maradona"	"Argentina"

3 Week 3: Employee

3.1 Show employee name and Manager name for Employee ID 4 and 6

Code.

```
select b.name as Employee, a.name as Manager
from employee a,employee b
where a.empid=b.manager and (b.empid=4 or b.empid=6)
```

Output.

3.2 Show the entire list of employee name and employee id under manager "Palash Roy"

Code.

```
select distinct emp.name as Employee, man.name as Manager
from employee emp,employee man
where emp.manager=man.empid and man.empid=4
```

Output.

4 Week 4: Client Master

4.1 Retrieve the list of names, city and the states of all the clients

Code.

```
select name, city, state from client_master
```

Output.

4.2 List all the clients who are located in Mumbai

Code.

```
select name from client_master  
where city='Mumbai'
```

Output.

4.3 List the various products available from the PRODUCT-MASTER table

Code.

```
select description from product_master
```

Output.

4.4 Change the city of Client_No 'C00005' to Bangalore

Code.

```
update client_master  
set city='Bangalore'  
where client_no='C00005'
```

Output.

4.5 Add a column called 'Telephone' of datatype 'number' and size='10' to the Client_Master table

Code.

```
alter table client_master  
add Telephone number(10)
```

Output.

4.6 Delete the column 'Telephone'

Code.

```
alter table client_master  
drop column Telephone
```

Output.

4.7 Change the name of Client_Master to Clnt_Mast

Code.

```
rename client_master to clnt_mast
```

Output.

4.8 List the names of all clients having 'a' letter in their names

Code.

```
select name from clnt_mast  
where name like '%a%'
```

Output.

4.9 List the names of the clients who stay in 'Bangalore' or 'Mangalore'

Code.

```
select name from clnt_mast  
where city like '_angalore'
```

Output.

4.10 List the names of the clients having 'h' as the second letter in their names

Code.

```
select name from clnt_mast  
where name like '_h%'
```

Output.

4.11 List all the information from the Sales_Order table for orders placed in the month of June

Code.

```
select * from sales_order
where order_date like '%JUN%'
```

Output.

4.12 List the information for Client_No 'C00001' and 'C00002'

Code.

```
select * from sales_order
where client_no='C00001' or client_no='C00002'
```

Output.

4.13 List products whose selling price is greater than 500 and less than 700

Code.

```
select * from product_master
where sell_price > 500 and sell_price < 700
```

Output.

4.14 List the names, city and states of clients who are not in the state of 'Maharashtra'

Code.

```
select name,city,state from clnt_mast
where state <> 'Maharashtra'
```

Output.

4.15 List the products whose selling price is more than 500. Calculate a new selling price as, original selling price * 15. Rename the new column in the output of the above query as New_Price.

Code.

```
select description, sell_price*15 as new_price
from product_master
where sell_price > 500
```

Output.

4.16 Count the number of products having sell_price less than or equal to 500.

Code.

```
select count(sell_price) from product_master
where sell_price <= 500
```

Output.

4.17 List the order number and day on which clients placed their order.

Code.

```
select name,order_no,order_date,to_char(to_date(order_date,
'dd/mm/yyyy'),'DY') as day
from sales_order join clnt_mast on
clnt_mast.client_no=sales_order.client_no
```

Output.

5 Week 5

5.1 Show the stadium and the number of goals scored in each stadium. For every match where 'GER' scored, show matchid, match date and the number of goals scored by 'GER'.

Code.

```
select matchid,mdate,count(*)
from game join goal
on goal.matchid=game.id
where teamid='GER'
group by mdate,matchid
```

Output.

6 Week 6: NULL

6.1 List the teachers who have NULL for their department

```
select name from teacher where dept is null
```

6.2 Show teacher name and dept. name for teachers having not null in dept.

Code.

```
select teacher.name, dept.name as dept
from teacher join dept on teacher.dept=dept.id
where teacher.dept is not null
```

Output.

6.3 Show teachers name, id, mobile and dept name

Code.

```
select teacher.name, teacher.id, teacher.mobile, dept.name
from dept full outer join teacher on teacher.dept=dept.id
```

Output.

6.4 Use a different JOIN so that all teachers are listed.

Code.

```
select teacher.name, teacher.id, dept.name
from dept left outer join teacher on teacher.dept=dept.id
```

Output.

6.5 Use COALESCE to print the mobile number. Use the number '07986 444 2266' if there is no number given. Show teacher name and mobile number or '07986 444 2266'

Code.

```
select name,
coalesce (mobile, '07986 444 2266') as newmob
from teacher
```

Output.

6.6 Use the COALESCE function and a LEFT JOIN to print the teacher name and department name. Use the string 'None' where there is no department.

Code.

```
select teacher.name, coalesce(dept.name, 'None') as dept
from teacher left join dept on teacher.dept=dept.id
```

Output.

6.7 Use COUNT to show the number of teachers and the number of mobile phones.

Code.

```
select count(name) as Total_Teachers ,  
count(mobile) as Total_Mobiles  
from teacher
```

Output.

6.8 Use COUNT and GROUP BY dept.name to show each department and the number of staff. Use a RIGHT JOIN to ensure that the Engineering department is listed.

Code.

```
select dept.name, count(teacher.name) as Total_staff  
from teacher right join dept on teacher.dept=dept.id  
group by dept.name
```

Output.

6.9 Use CASE to show the name of each teacher followed by 'Sci' if the teacher is in dept 1 or 2 and 'Art' otherwise.

Code.

```
select name,  
case when dept=1 or dept=2 then 'Sci '  
else 'Art '  
end as Dept  
from teacher
```

Output.

6.10 Use CASE to show the name of each teacher followed by 'Sci' if the teacher is in dept 1 or 2, show 'Art' if the teacher's dept is 3 and 'None' otherwise.

Code.

```
select name,  
case when dept=1 or dept=2 then 'Sci '  
when dept=3 then 'Art '  
else 'None '  
end as Dept  
from teacher
```

Output.