Database Management System.

-supervised by:

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1. Date: 20/4/2017

ID	TEAMNAME	COACH
POL	Poland	Franciszek Smuda
RUS	Russia	Dick Advocaat
CZE	Czech Republic	Michal Blek
GRE	Greece	Fernando Santos
NED	Netherlands	Bert van Marwijk
DEN	Denmark	Morten Olsen
GER	Germany	Joachim Lw
POR	Portugal	Paulo Bento
ESP	Spain	Vicente del Bosque
ITA	Italy	Cesare Prandelli
IRL	Republic of Ireland	Giovanni Trapattoni
CRO	Croatia	Slaven Bilic
UKR	Ukraine	Oleh Blokhin
SWE	Sweden	Erik Hamrn
ENG	England	Roy Hodgson
FRA	France	Laurent Blanc

ETeam (PK: ID)

ID	MDATE	STADIUM	TEAM1	TEAM2
1001	06/08/12	National Stadium (Warsaw)	POL	GRE
1002	06/08/12	Stadion Miejski (Wroclaw)	RUS	CZE
1003	06/12/12	Stadion Miejski (Wroclaw)	GRE	CZE
1004	06/12/12	National Stadium (Warsaw)	POL	RUS
1005	06/16/12	Stadion Miejski (Wroclaw)	CZE	POL
1006	06/16/12	National Stadium (Warsaw)	GRE	RUS
1007	06/09/12	Metalist Stadium	NED	DEN
1008	06/09/12	Arena Lviv	GER	POR
1009	06/13/12	Arena Lviv	DEN	POR
1010	06/13/12	Metalist Stadium	NED	GER
1011	06/17/12	Metalist Stadium	POR	NED
1012	06/17/12	Arena Lviv	DEN	GER
1013	06/10/12	PGE Arena Gdansk	ESP	ITA
1014	06/10/12	Stadion Miejski (Poznan)	IRL	CRO
1015	06/14/12	Stadion Miejski (Poznan)	ITA	CRO
1016	06/14/12	PGE Arena Gdansk	ESP	IRL
1017	06/18/12	PGE Arena Gdansk	CRO	ESP
1018	06/18/12	Stadion Miejski (Poznan)	ITA	IRL
1019	06/11/12	Donbass Arena	FRA	ENG
1020	06/11/12	Olimpiyskiy National Sports Complex	UKR	SWE
1021	06/15/12	Donbass Arena	UKR	FRA
1022	06/15/12	Olimpiyskiy National Sports Complex	SWE	ENG
1023	06/19/12	Donbass Arena	ENG	UKR
1024	06/19/12	Olimpiyskiy National Sports Complex	SWE	FRA
1025	06/21/12	National Stadium (Warsaw)	CZE	POR
1026	06/22/12	PGE Arena Gdansk	GER	GRE
1027	06/23/12	Donbass Arena	ESP	FRA
1028	06/24/12	Olimpiyskiy National Sports Complex	ENG	ITA
1029	06/27/12	Donbass Arena	POR	ESP
1030	06/28/12	National Stadium (Warsaw)	GER	ITA
1031	07/01/12	Olimpiyskiy National Sports Complex	ESP	ITA

Game(PK:ID)

MATCHID	TEAMID	PLAYER	GTIME
1001	POL	Robert Lewandowski	17
1001	GRE	Dimitris Salpingidis	51
1002	RUS	Alan Dzagoev	15
1002	RUS	Alan Dzagoev	79
1002	RUS	Roman Shirokov	24
1002	RUS	Roman Pavlyuchenko	82
1002	CZE	Vclav Pilar	52
1003	GRE	Theofanis Gekas	53
1003	CZE	Petr Jircek	3
1003	CZE	Vclav Pilar	6
1004	POL	Jakub Blaszczykowski	57
1004	RUS	Alan Dzagoev	37
1005	CZE	Petr Jircek	72
1006	GRE	Giorgos Karagounis	45
1007	DEN	Michael Krohn-Dehli	24
1008	GER	Mario Gmez	72
1009	DEN	Nicklas Bendtner	41
1009	DEN	Nicklas Bendtner	80
1009	POR	Pepe (footballer born 1983)	24
1009	POR	Hlder Postiga	36
1009	POR	Silvestre Varela	87
1010	NED	Robin van Persie	73
1010	GER	Mario Gmez	24
1010	GER	Mario Gmez	38
1011	POR	Cristiano Ronaldo	28
1011	POR	Cristiano Ronaldo	74
1011	NED	Rafael van der Vaart	11
1012	DEN	Michael Krohn-Dehli	24
1012	GER	Lukas Podolski	19
1012	GER	Lars Bender	80
1013	ESP	Cesc Fbregas	64
1013	ITA	Antonio Di Natale	61
1014	IRL	Sean St Ledger	19
1014	CRO	Mario Mandukic	3
1014	CRO	Mario Mandukic	49
1014	CRO	Nikica Jelavic	43
1015	ITA	Andrea Pirlo	39
1015	CRO	Mario Mandukic	72
1016	ESP	Fernando Torres	4
1016	ESP	Fernando Torres	70
1016	ESP	David Silva	49
1016	ESP	Cesc Fbregas	83
1017	ESP	Jess Navas	88
1018	ITA	Antonio Cassano	35
1018	ITA	Mario Balotelli	90
1019	FRA	Samir Nasri	39
1019	ENG	Joleon Lescott	30
1020	UKR	Andriy Shevchenko	55
1020	UKR	Andriy Shevchenko	62
1020	SWE	Zlatan Ibrahimovic	52

Goal (FK: MATCHID)

1..1 Show player name, team id,stadium and mdate for every german player.

Query:

```
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	06/09/12
Mario Gmez	GER	Metalist Stadium	06/13/12
Mario Gmez	GER	Metalist Stadium	06/13/12
Lars Bender	GER	Arena Lviv	06/17/12
Lukas Podolski	GER	Arena Lviv	06/17/12

1..2 Show team1,team2, and player for every goal scored by a player called 'Mario'.

Program:

```
select Game.team1, Game.team2, Goal.Player
from Goal join Game on Goal.MATCHID=Game.ID
where goal.matchid=game.id and 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 minutes.

Query:

```
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 dates of the matches and the name of the team in which 'Fernando Santos' was the team1 coach.

Query:

```
select Game.mdate, ETeam.teamname
from Game join eteam on Game.Team1=ETeam.ID
where coach='Fernando Santos'
```

Output:

MDATE	TEAMNAME
06/12/12	Greece
06/16/12	Greece

1..5 List the player for every goal scored in a game whre the stadium was 'National Stadium, Warsaw'.

Query:

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

Output:

PLAYER
Robert Lewandowski
Dimitris Salpingidis
Jakub Blaszczykowski
Alan Dzagoev
Giorgos Karagounis

1..6 Show the name of the player who scored a goal against Germany('GER').

Query:

```
select goal.player from goal
join game 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..7 Show the stadium and the number of goals scored in each stadium. Use count().

Query:

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

Output:

STADIUM	GOALS
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

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2. Date: 27/4/2017

ID	TEAMNAME	COACH	
POL	Poland	Franciszek Smuda	
RUS	Russia	Dick Advocaat	
CZE	Czech Republic	Michal Blek	
GRE	Greece	Fernando Santos	
NED	Netherlands	Bert van Marwijk	
DEN	Denmark	Morten Olsen	
GER	Germany	Joachim Lw	
POR	Portugal	Paulo Bento	ETeam (PK: ID)
ESP	Spain	Vicente del Bosque	
ITA	Italy	Cesare Prandelli	
IRL	Republic of Ireland	Giovanni Trapattoni	
CRO	Croatia	Slaven Bilic	
UKR	Ukraine	Oleh Blokhin	
SWE	Sweden	Erik Hamrn	
ENG	England	Roy Hodgson	
FRA	France	Laurent Blanc	
ARG	Argentina	Diego Maradona	

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ID	MDATE	STADIUM	TEAM1	TEAM2	
1001	06/08/12	National Stadium (Warsaw)	POL	GRE	
1002	06/08/12	Stadion Miejski (Wroclaw)	RUS	CZE	
1003	06/12/12	Stadion Miejski (Wroclaw)	GRE	CZE	Game(PK:ID)
1004	06/12/12	National Stadium (Warsaw)	POL	RUS	
1005	06/16/12	Stadion Miejski (Wroclaw)	CZE	POL	

ID	MDATE	STADIUM	TEAM1	TEAM2
1006	06/16/12	National Stadium (Warsaw)	GRE	RUS
1007	06/09/12	Metalist Stadium	NED	DEN
1008	06/09/12	Arena Lviv	GER	POR
1009	06/13/12	Arena Lviv	DEN	POR
1010	06/13/12	Metalist Stadium	NED	GER
1011	06/17/12	Metalist Stadium	POR	NED
1012	06/17/12	Arena Lviv	DEN	GER
1013	06/10/12	PGE Arena Gdansk	ESP	ITA
1014	06/10/12	Stadion Miejski (Poznan)	IRL	CRO
1015	06/14/12	Stadion Miejski (Poznan)	ITA	CRO
1016	06/14/12	PGE Arena Gdansk	ESP	IRL
1017	06/18/12	PGE Arena Gdansk	CRO	ESP
1018	06/18/12	Stadion Miejski (Poznan)	ITA	IRL
1019	06/11/12	Donbass Arena	FRA	ENG
1020	06/11/12	Olimpiyskiy National Sports Complex	UKR	SWE
1021	06/15/12	Donbass Arena	UKR	FRA
1022	06/15/12	Olimpiyskiy National Sports Complex	SWE	ENG
1023	06/19/12	Donbass Arena	ENG	UKR
1024	06/19/12	Olimpiyskiy National Sports Complex	SWE	FRA
1025	06/21/12	National Stadium (Warsaw)	CZE	POR
1026	06/22/12	PGE Arena Gdansk	GER	GRE
1027	06/23/12	Donbass Arena	ESP	FRA
1028	06/24/12	Olimpiyskiy National Sports Complex	ENG	ITA

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1001	POL	Robert Lewandowski	17
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1002	RUS	Alan Dzagoev	79
1002	RUS	Roman Shirokov	24
1002	RUS	Roman Pavlyuchenko	82
1002	CZE	Vclav Pilar	52
1003	GRE	Theofanis Gekas	53
1003	CZE	Petr Jircek	3
1003	CZE	Vclav Pilar	6
1004	POL	Jakub Blaszczykowski	57
1004	RUS	Alan Dzagoev	37
1005	CZE	Petr Jircek	72
1006	GRE	Giorgos Karagounis	45
1007	DEN	Michael Krohn-Dehli	24
1008	GER	Mario Gmez	72
1009	DEN	Nicklas Bendtner	41
1009	DEN	Nicklas Bendtner	80
1009	POR	Pepe (footballer born 1983)	24
1009	POR	Hlder Postiga	36
1009	POR	Silvestre Varela	87
1010	NED	Robin van Persie	73
1010	GER	Mario Gmez	24

Goal (FK: MATCHID)

MATCHID	TEAMID	PLAYER	GTIME
1010	GER	Mario Gmez	38
1011	POR	Cristiano Ronaldo	28
1011	POR	Cristiano Ronaldo	74
1011	NED	Rafael van der Vaart	11
1012	DEN	Michael Krohn-Dehli	24
1012	GER	Lukas Podolski	19
1012	GER	Lars Bender	80
1013	ESP	Cesc Fbregas	64
1013	ITA	Antonio Di Natale	61
1014	IRL	Sean St Ledger	19
1014	CRO	Mario Mandukic	3
1014	CRO	Mario Mandukic	49
1014	CRO	Nikica Jelavic	43
1015	ITA	Andrea Pirlo	39
1015	CRO	Mario Mandukic	72
1016	ESP	Fernando Torres	4
1016	ESP	Fernando Torres	70
1016	ESP	David Silva	49
1016	ESP	Cesc Fbregas	83
1017	ESP	Jess Navas	88
1018	ITA	Antonio Cassano	35
1018	ITA	Mario Balotelli	90
1019	FRA	Samir Nasri	39
1019	ENG	Joleon Lescott	30

2..1 Show the matchdate,stadium,player name,goal time for match ids 1019 and 1021.

Query:

```
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..2 Show all the goal time,player, stadium where first team was Germany.

Query:

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

Query:

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

Output:

MDATE	STADIUM	TEAMNAME
		Argentina

.

2..4 Show id,matchdate,stadium,coach and team name for all team2. Use full outer join.

Query:

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

Output:

ID	MDATE	STADIUM	COACH	TEAMNAME
1005	16-JUN-12	Stadion Miejski (Wroclaw)	Franciszek Smuda	Poland
1008	09-JUN-12	Arena Lviv	Paulo Bento	Portugal
1015	14-JUN-12	Stadion Miejski (Poznan)	Slaven Bilic	Croatia
1021	15-JUN-12	Donbass Arena	Laurent Blanc	France
1023	19-JUN-12	Donbass Arena	Oleh Blokhin	Ukraine

3. Date: 27/4/2017

ORDER-ID	CUSTOMER-ID	ORDER-DATE
1	7000	4/18/2016
2	5000	4/18/2016
3	8000	4/19/2016
4	4000	4/20/2016
5	NULL	5/1/2016

Order (PK:ORDER-ID, FK:CUSTOMER-ID)

CUSTOMER-ID	LAST-NAME	FIRST-NAME	FAVORITE-WEBSITE
4000	Jackson	Joe	techonthenet.com
5000	Smith	Jane	digminecraft.com
6000	Ferguson	Samantha	bigactivities.com
7000	Reynolds	Allen	checkyourmath.com
8000	Anderson	Paige	NULL
9000	Johnson	Derek	techonthenet.com

Game(PK:CUSTOMER-ID)

EMPID	NAME	MANAGER
1	Joy Bannerjee	4
2	Rahul Das	6
3	Binoy Paul	2
4	Palash Roy	5
5	Prasanna Santra	7
6	Ananya Majumder	4
7	Albert	5

Employee (PK: EMPID)

3..1 Show employee name and Manager name for Employee ID 4 and 6.

Query:

```
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:

EMPLOYEE	MANAGER
Ananya Majumder	Palash Roy
Palash Roy	Prasanna Santra

.

3..2 Show the entire list of employee name and employee id under manager "Palash Roy".

Query:

```
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:

EMPLOYEE	MANAGER
Ananya Majumder	Palash Roy
Joy Bannerjee	Palash Roy

CLIENT-NO	NAME	CITY	PINCODE	STATE
C00001	Ahana Banerjee	Kolkata	700006	West Bengal
C00002	Mamta Paul	Chennai	780001	Tamil Nadu
C00003	Chhya Banker	Mumbai	400057	Maharashtra
C00004	Ashwini Joshi	Bangalore	560001	Karnataka
C00005	Deepak Sharma	Mangalore	560050	Karnataka

Client_Master (PK:Client-No)

PRODUCT-NO	DESCRIPTION	PROFIT-PERCENT	UNIT-MEASURE	SELL-PRICE	COST-PRICE
P00001	T-Shirt	5	Piece	350	250
P0345	Shirts	6	Piece	500	350
P06734	Cotton Jeans	5	Piece	600	450
P07868	Trousers	2	Piece	850	550
P07885	Pull Overs	2.5	Piece	700	450

Product_Master (PK:Product-No)

ORDER-NO	CLIENT-NO	ORDER-DATE	DELYDATE	ORDER-STATUS
O19001	C00001	12-June-17	20-July-17	In Process
O19002	C00002	25-June-17	27-June-17	Cancelled
O46865	C00003	18-Feb-17	20-Feb-17	Fulfilled
O19003	C00001	03-Apr-17	07-Apr-17	Fulfilled
O46866	C00004	20-May-17	22-May-17	Cancelled

Sales_Order (PK: Order-No, FK: Client-No)

4..1   Retrieve the list of names, city and the states of all the clients.

Query:

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

Output:

NAME	CITY	STATE
Ahana Banerjee	Kolkata	West Bengal
Mamta Paul	Chennai	Tamil Nadu
Chhya Banker	Mumbai	Maharashtra
Ashwini Joshi	Bangalore	Karnataka
Deepak Sharma	Mangalore	Karnataka

4..2   List all the clients who are located in Mumbai.

Query:

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

Output:

CLIENT-NO	NAME	CITY	PINCODE	STATE
C00003	Chhya Banker	Mumbai	400057	Maharashtra

4..3   List the various products available from the PRODUCT-MASTER table.

Query:

```
select description from product_master
```

Output:

DESCRIPTION
T-Shirt
Shirts
Cotton Jeans
Trousers
Pull Overs

4..4   Change the city of Client_No 'C00005' to Bangalore.

Query:

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

Output:

CLIENT-NO	NAME	ADDRESS	CITY	PINCODE	STATE
C00001	Ahana Banerjee		Kolkata	700006	West Bengal
C00002	Mamta Paul		Chennai	780001	Tamil Nadu
C00003	Chhya Banker		Mumbai	400057	Maharashtra
C00004	Ashwini Joshi		Bangalore	560001	Karnataka
C00005	Deepak Sharma		Bangalore	560050	Karnataka

4..5 Add a column called 'Telephone' of datatype 'number' and size='10' to the Client_Master table.

Query:

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

Output:

```
+-----------+-------------+------+-----+---------+-------+
| Field     | Type        | Null | Key | Default | Extra |
+-----------+-------------+------+-----+---------+-------+
| client_no | int(11)     | NO   | PRI | NULL    |       |
| name      | varchar(20) | YES  |     | NULL    |       |
| address   | varchar(30) | YES  |     | NULL    |       |
| city      | varchar(15) | YES  |     | NULL    |       |
| pincode   | int(11)     | YES  |     | NULL    |       |
| state     | varchar(15) | YES  |     | NULL    |       |
| telephone | int(10)     | YES  |     | NULL    |       |
+-----------+-------------+------+-----+---------+-------+
```

4..6 Delete the column 'Telephone'.

Query:

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

Output:

```
+-----------+-------------+------+-----+---------+-------+
| Field     | Type        | Null | Key | Default | Extra |
+-----------+-------------+------+-----+---------+-------+
| client_no | int(11)     | NO   | PRI | NULL    |       |
| name      | varchar(20) | YES  |     | NULL    |       |
| address   | varchar(30) | YES  |     | NULL    |       |
| city      | varchar(15) | YES  |     | NULL    |       |
| pincode   | int(11)     | YES  |     | NULL    |       |
| state     | varchar(15) | YES  |     | NULL    |       |
+-----------+-------------+------+-----+---------+-------+
```

4..7 Change the name of Client_Master to Clnt_Mast.

Query:

```
rename client_master to clnt_mast
```

4..8 List the names of all clients having 'a' letter in their names.

Query:

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

Output:

NAME
Ahana Banerjee
Mamta Paul
Chhya Banker
Deepak Sharma

4..9 List the names of the clients who stay in 'Bangalore' or 'Mangalore'.

Query:

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

Output:

CLIENT-NO	NAME	ADDRESS	CITY	PINCODE	STATE
C00004	Ashwini Joshi		Bangalore	560001	Karnataka
C00005	Deepak Sharma		Bangalore	560050	Karnataka

4..10 List the names of the clients having 'h' as the second letter in their names.

Query:

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

Output:

NAME
Ahana Banerjee
Chhya Banker

4..11 List all the information from the Sales_Order table for orders placed in the month of June.

Query:

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

Output:

ORDER-NO	CLIENT-NO	ORDER-DATE	DELYDATE	ORDER-STATUS
O19001	C00001	12-JUN-17	20-JUL-17	In Process
O19002	C00002	25-JUN-17	27-JUL-17	Cancelled

4..12 List the information for Client_No 'C00001' and 'C00002'.

Query:

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

Output:

ORDER-NO	CLIENT-NO	ORDER-DATE	DELYDATE	ORDER-STATUS
O19001	C00001	12-JUN-17	20-JUL-17	In Process
O19002	C00002	25-JUN-17	27-JUL-17	Cancelled
O19003	C00001	03-APR-17	07-APR-17	Fulfilled

4..13 List products whose selling price is greater than 500 and less than 700.

Query:

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

Output:

DESCRIPTION
Cotton Jeans

4..14 List the names, city and states of clients who are not in the state of 'Maharashtra'.

Query:

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

Output:

NAME	CITY	STATE
Ahana Banerjee	Kolkata	West Bengal
Mamta Paul	Chennai	Tamil Nadu
Ashwini Joshi	Bangalore	Karnataka
Deepak Sharma	Bangalore	Karnataka

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.**

Query:

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

Output:

PRODUCT-NO	DESCRIPTION	PROFIT-PERCENT	UNIT-MEASURE	SELL-PRICE	COST-PRICE
P00001	T-Shirt	5	Piece	350	250
P0345	Shirts	6	Piece	500	350
P06734	Cotton Jeans	5	Piece	600	450
P07868	Trousers	2	Piece	850	550
P07885	Pull Overs	2.5	Piece	700	450

4..16 **Count the number of products having sell_price less than or equal to 500.**

Query:

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

Output:

NAME	ORDER-NO	ORDER-DATE	DAY	SELL-PRICE	COST-PRICE
Ahana Banerjee	O19003	03-APR-17	SAT	350	250
Ahana Banerjee	O19001	12-JUN-17	SAT	500	350
Mamta Paul	O19002	25-JUN-17	FRI	600	450
Chhya Banker	O46865	18-FEB-17	THU	850	550
Ashwini Joshi	O46866	20-MAY-17	THU	700	450

4..17 **List the order number and day on which clients placed their order.**

Query:

```
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:

MATCHID	MDATE	COUNT(*)
1008	09-JUN-12	1
1012	17-JUN-12	2
1010	13-JUN-12	2

5.   Date: 4/5/2017

(Refer to tables on pages 7,8 and 9)

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'.

Query:

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

Output:

MATCHID	MDATE	COUNT(*)
1008	09-JUN-12	1
1012	17-JUN-12	2
1010	13-JUN-12	2

6.   Date: 11/5/2017

ID	DEPT	NAME	PHONE	MOBILE	
101	1	Shrivell	2753	07986 555 1234	
102	1	Throd	2754	07122 555 1920	Teacher (PK: ID)
103	1	Splint	2293		
104		Spiregrain			
105	2	Cutflower	3212	07996 555 6574	
106		Deadyawn	3345		

ID	NAME	
1	Computing	
2	Design	Dept (PK: ID)
3	Engineering	

6..1   List the teachers who have NULL for their department.

Query:

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

Output:

NAME
Spiregrain
Deadyyawn

6..2 Show teacher name and dept. name for teachers having not null in dept.

Query:

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

Output:

NAME	DEPT
Shrivell	Computing
Throd	Computing
Splint	Computing
Cutflower	Design

6..3 Show teachers name, id, mobile and dept name.

Query:

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

Output:

NAME	ID	MOBILE	NAME
Shrivell	101	07986 555 1234	Computing
Throd	102	07122 555 1920	Computing
Splint	103		Computing
Cutflower	105	07996 555 6574	Design
			Engineering
Spiregrain	104		
Deadyyawn	106		

6..4 Use a different JOIN so that all teachers are listed.

Query:

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

<div align="center">

Output:

NAME	ID	NAME	NAME
Splint	103	Computing	Computing
Throd	102	Computing	Computing
Shrivell	101	Computing	Computing
Cutflower	105	Design	Design
Deadyyawn	106		Engineering
Spiregrain	104		
Deadyyawn	106		

</div>

6..5   Use a different JOIN so that all departments are listed.

<div align="center">

Query:

</div>

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

<div align="center">

Output:

NAME	ID	DEPT
Shrivell	101	Computing
Throd	102	Computing
Splint	103	Computing
Cutflower	105	Design
		Engineering

</div>

6..6   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'

<div align="center">

Query:

</div>

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

<div align="center">

Output:

NAME	NEWMOB
Shrivell	07986 555 1234
Throd	07122 555 1920
Splint	07986 444 2266
Spiregrain	07986 444 2266
Cutflower	07996 555 6574
Deadyyawn	07986 444 2266

</div>

6..7 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.

Query:

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

Output:

NAME	DEPT
Splint	Computing
Throd	Computing
Shrivell	Computing
Cutflower	Design
Deadyyawn	None
Spiregrain	None

6..8 Use COUNT to show the number of teachers and the number of mobile phones.

Query:

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

Output:

TOTAL-TEACHERS	TOTAL-MOBILES
6	3

6..9 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.

Query:

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

Output:

NAME	TOTAL-STAFF
Computing	3
Engineering	0
Design	1

6..10 **Use CASE to show the name of each teacher followed by 'Sci' if the teacher is in dept 1 or 2 and 'Art' otherwise.**

Query:

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

Output:

NAME	DEPT
Shrivell	Sci
Throd	Sci
Splint	Sci
Spiregrain	Art
Cutflower	Sci
Deadyyawn	Art

6..11 **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.**

Query:

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

Output:

NAME	DEPT
Shrivell	Sci
Throd	Sci
Splint	Sci
Spiregrain	None
Cutflower	Sci
Deadyyawn	None