

Hi guys. It's been an amazing 1month.
Now let's enjoy some delicacies.



My SQL Worksheet-1
(DDL – Database Related commands)

1.	If a database "Employee" exists, which MySql command helps you to start working in that database?
2.	Write MySql command will be used to open an already existing database "LIBRARY".
3.	Write MySql command to open an existing database.
4.	What does SQL stand for? What is MySQL?
5.	Write two examples of DBMS software.
6.	Sherifat wants to make the database named 'COMPANY' active. Write MySQL commands for it.
7.	What is MySQL ?
8.	What is the relationship between SQL and MySQL ?
9.	Mention any two example of common Database Management System.
10 .	Suggest SQL query suitable command for the following purpose: i. To display the list of the database already existing in MySQL. ii. To use the database named City. iii. To remove the pre-existing database named Clients.
11 .	Write the command to display the name of the active database.

12 .	Write the command to create a new database “School”

My SQL Worksheet 2
(DDL – Table Related commands excluding Alter table)

1.	<p>Write an SQL query to create the table 'Menu' with the following structure:</p> <table border="1"> <thead> <tr> <th>Field</th><th>Type</th><th>Constraint</th></tr> </thead> <tbody> <tr> <td>ItemCode</td><td>Varchar(5)</td><td>Primary Key</td></tr> <tr> <td>ItemName</td><td>Varchar(20)</td><td></td></tr> <tr> <td>Category</td><td>Varchar(20)</td><td></td></tr> <tr> <td>Price</td><td>Decimal(5,2)</td><td></td></tr> </tbody> </table>	Field	Type	Constraint	ItemCode	Varchar(5)	Primary Key	ItemName	Varchar(20)		Category	Varchar(20)		Price	Decimal(5,2)						
Field	Type	Constraint																			
ItemCode	Varchar(5)	Primary Key																			
ItemName	Varchar(20)																				
Category	Varchar(20)																				
Price	Decimal(5,2)																				
2.	Can a table have multiple primary keys? Can it have multiple foreign keys?																				
3.	In a Student table, out of Roll Number, Name, Address which column can be set as Primary key and why?																				
4.	Ms. Mirana wants to remove the entire content of a table "BACKUP" alongwith its structure to release the storage space. What MySql statement should she use ?																				
5.	<p>Write MySql command to create the Table STOCK including its Constraints.</p> <p>Table STOCK :</p> <table border="1"> <thead> <tr> <th>Name of Column</th><th>Type</th><th>Size</th><th>Constraint</th></tr> </thead> <tbody> <tr> <td>Id</td><td>Decimal</td><td>4</td><td>Primary Key</td></tr> <tr> <td>Name</td><td>Varchar</td><td>20</td><td></td></tr> <tr> <td>Company</td><td>Varchar</td><td>20</td><td></td></tr> <tr> <td>Price</td><td>Decimal</td><td>8</td><td>Not Null</td></tr> </tbody> </table>	Name of Column	Type	Size	Constraint	Id	Decimal	4	Primary Key	Name	Varchar	20		Company	Varchar	20		Price	Decimal	8	Not Null
Name of Column	Type	Size	Constraint																		
Id	Decimal	4	Primary Key																		
Name	Varchar	20																			
Company	Varchar	20																			
Price	Decimal	8	Not Null																		
6.	Write one similarity and one difference between CHAR and VARCHAR data types.																				
7.	Kelvin had previously created a table named 'Product' in a database using MySQL. Later on she forgot the table structure. Suggest her suitable MySQL command through which she can check the structure of the already created table.																				

8.	Techie wants to list the names of all the tables in her database named ‘Gadgets’. Which command (s) she should use to get the desired result.																					
9.	Name the SQL commands used to : (i) Physically delete a table from the database. (ii) Display the structure of a table.																					
10.	Write one similarity and one difference between UNIQUE and PRIMARY KEY constraints.																					
11.	An attribute A of datatype varchar(20) has the value “Jerry” . The attribute B of datatype char(20) has value ”Sherifat” . How many characters are occupied in attribute A ? How many characters are occupied in attribute B?																					
12.	Mrs. Zaynab is the class teacher of Class ‘XII A’ She wants to create a table ‘Student’ to store details of her class. i) Which of the following can be the attributes of Student table? a) RollNo b) “Amit” c) Name d) 25 ii) Name the Primary key of the table ‘Student’ . State reason for choosing it.																					
13.	Write SQL query to create a table ‘Player’ with the following structure: <table border="1"><thead><tr><th>Field</th><th>Type</th><th>Constraint</th></tr></thead><tbody><tr><td>playerid</td><td>Integer</td><td>Primary key</td></tr><tr><td>name</td><td>Varchar(50)</td><td></td></tr><tr><td>height</td><td>Integer</td><td></td></tr><tr><td>weight</td><td>Integer</td><td></td></tr><tr><td>datebirth</td><td>Date</td><td></td></tr><tr><td>teamname</td><td>Varchar(50)</td><td></td></tr></tbody></table>	Field	Type	Constraint	playerid	Integer	Primary key	name	Varchar(50)		height	Integer		weight	Integer		datebirth	Date		teamname	Varchar(50)	
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playerid	Integer	Primary key																				
name	Varchar(50)																					
height	Integer																					
weight	Integer																					
datebirth	Date																					
teamname	Varchar(50)																					
14.	Anita has created the following table with the name ‘Order’. Table : Order <table border="1"><thead><tr><th>Column Name</th><th>Constraint</th></tr></thead><tbody><tr><td>OrderId</td><td>Primary Key</td></tr><tr><td>OrderDate</td><td>Not Null</td></tr><tr><td>OrderAmount</td><td></td></tr><tr><td>StoreId</td><td></td></tr></tbody></table> One of the rows inserted is as follows :	Column Name	Constraint	OrderId	Primary Key	OrderDate	Not Null	OrderAmount		StoreId												
Column Name	Constraint																					
OrderId	Primary Key																					
OrderDate	Not Null																					
OrderAmount																						
StoreId																						

	<table border="1"> <thead> <tr> <th>OrderId</th><th>OrderDate</th><th>OrderAmount</th><th>StoreId</th></tr> </thead> <tbody> <tr> <td>O101</td><td>2015-02-12</td><td>34000</td><td>S104</td></tr> </tbody> </table> <p>(i) What is the data type of columns OrderId and OrderDate in the table Order ? (ii) Anita is now trying to insert the following row :</p> <table border="1"> <thead> <tr> <th>OrderId</th><th>OrderDate</th><th>OrderAmount</th><th>StoreId</th></tr> </thead> <tbody> <tr> <td>O102</td><td>NULL</td><td>59000</td><td>S105</td></tr> </tbody> </table> <p>Will she be able to successfully insert it ? Give reason.</p>	OrderId	OrderDate	OrderAmount	StoreId	O101	2015-02-12	34000	S104	OrderId	OrderDate	OrderAmount	StoreId	O102	NULL	59000	S105												
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OrderId	OrderDate	OrderAmount	StoreId																										
O102	NULL	59000	S105																										
	i)																												
15 .	<p>Write SQL query to create a table ‘Event’ with the following structure :</p> <table border="1"> <thead> <tr> <th>Field</th><th>Type</th><th>Constraint</th></tr> </thead> <tbody> <tr> <td>EventId</td><td>Varchar(5)</td><td>PRIMARY KEY</td></tr> <tr> <td>EventName</td><td>Varchar(30)</td><td>NOT NULL</td></tr> <tr> <td>Location</td><td>Varchar(50)</td><td></td></tr> <tr> <td>ClientID</td><td>Integer</td><td></td></tr> <tr> <td>EventDate</td><td>Date</td><td></td></tr> </tbody> </table>	Field	Type	Constraint	EventId	Varchar(5)	PRIMARY KEY	EventName	Varchar(30)	NOT NULL	Location	Varchar(50)		ClientID	Integer		EventDate	Date											
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EventName	Varchar(30)	NOT NULL																											
Location	Varchar(50)																												
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16 .	<p>Observe the given table carefully and answer the following questions:</p> <table border="1"> <thead> <tr> <th>PanNo</th><th>Name</th><th>Phoneno</th><th>Address</th></tr> </thead> <tbody> <tr> <td>CIZPW123A</td><td>Rajesh Kumar</td><td>9599123456</td><td>WZ11 – Rajouri Garden, Delhi</td></tr> <tr> <td>ABWQ2341B</td><td>Hemant Kumar</td><td>9812345678</td><td>Modern Apartments, Pitampura, Delhi</td></tr> <tr> <td>DERA9786T</td><td>Naveen Sharma</td><td>7868654235</td><td>CA 22, Sector 21 Rohini, Delhi</td></tr> <tr> <td>PARD3457L</td><td>Sourabh Verma</td><td>8933217645</td><td>JD 61, Sector 20, Gurgaon</td></tr> <tr> <td>GDTF8762P</td><td>Nishant Kumar</td><td>NULL</td><td>Modern Apartments, Pitampura, Delhi</td></tr> <tr> <td>MERT2376G</td><td>Hemant Kumar</td><td>9811110891</td><td>F40, Sector 19, Rohini, Delhi</td></tr> </tbody> </table> <p>i. Name the column that might have a Primary Key constraint. Justify your answer. ii. Name the column that might have a Unique constraint. Justify your answer.</p>	PanNo	Name	Phoneno	Address	CIZPW123A	Rajesh Kumar	9599123456	WZ11 – Rajouri Garden, Delhi	ABWQ2341B	Hemant Kumar	9812345678	Modern Apartments, Pitampura, Delhi	DERA9786T	Naveen Sharma	7868654235	CA 22, Sector 21 Rohini, Delhi	PARD3457L	Sourabh Verma	8933217645	JD 61, Sector 20, Gurgaon	GDTF8762P	Nishant Kumar	NULL	Modern Apartments, Pitampura, Delhi	MERT2376G	Hemant Kumar	9811110891	F40, Sector 19, Rohini, Delhi
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17 .	<p>“ABC” Event Management Company requires data of events that are to be organized.</p> <p>Write SQL query to create a table ‘Event’ with the following structure :</p>																												

	Field	Type	Constraint	
	EventId	Integer	Primary key	
	Event	Varchar(50)		
	DateEvent	Date		
	NumPerformers	Integer		
18 .	suggest her suitable command for the following purpose:			
	i. To display the list of the database already existing in MySQL.			
	ii. To use the database named City.			
	iii. To remove the pre-existing database named Clients.			
	iv. To remove all the records of the table named “Club” at one go along with its structure permanently.			
19 .	While creating a table named “Employee”, Mr. Rishi got confused as which data type he should chose for the column “EName” out of char and varchar. Help him in choosing the right data type to store employee name. Give valid justification for the same.			

My SQL Worksheet 3 (DDL – Table Related commands)

1.	Sahil created a table in Mysql. Later on he found that there should have been another column in the table. Which command should he use to add another column to the table?																															
2.	While creating a table 'Customer' Simrita forgot to set the primary key for the table. Give the statement which she should write now to set the column 'CustID' as the primary key of the table?																															
3.	Kuhu has already created a table ‘Hospital’ as shown below:																															
	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Patient_No</th> <th>Patient_Name</th> <th>Disease</th> <th>Age</th> <th>Charges</th> </tr> </thead> <tbody> <tr> <td>P001</td> <td>Alya</td> <td>Viral Fever</td> <td>14</td> <td>500</td> </tr> <tr> <td>P002</td> <td>Kavita</td> <td>Lung Infection</td> <td>16</td> <td>1500</td> </tr> <tr> <td>P003</td> <td>Manya</td> <td>Cough and Cold</td> <td>20</td> <td>500</td> </tr> <tr> <td>P004</td> <td>Amar</td> <td>Bone Fracture</td> <td>22</td> <td>2500</td> </tr> <tr> <td>P005</td> <td>Deep</td> <td>Viral Fever</td> <td>15</td> <td>500</td> </tr> </tbody> </table> <p>Now she wants to add a new column ‘Address’ to the above given table. Suggest suitable MySQL command for the same.</p>	Patient_No	Patient_Name	Disease	Age	Charges	P001	Alya	Viral Fever	14	500	P002	Kavita	Lung Infection	16	1500	P003	Manya	Cough and Cold	20	500	P004	Amar	Bone Fracture	22	2500	P005	Deep	Viral Fever	15	500	
Patient_No	Patient_Name	Disease	Age	Charges																												
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P005	Deep	Viral Fever	15	500																												
4.	Write SQL command to remove column named ‘Hobbies’ from a table named ‘Student’.																															

5.	While creating the table Student last week, Ms. Mariam forgot to include the column Game_Played. Now write a command to insert the Game_Played column with VARCHAR data type and 30 size into the Student table?												
6.	<p>Kunal created the following table with the name ‘Friends’ :</p> <p>Table : Friends</p> <table border="1"> <tr> <td></td><td></td><td></td></tr> <tr> <td>F101</td><td>Bijoy</td><td>Swimming</td></tr> <tr> <td>F102</td><td>Abhinav</td><td>Reading books</td></tr> <tr> <td>F103</td><td>Jyotsna</td><td>Dancing</td></tr> </table> <p>Now, Kunal wants to delete the ‘Hobbies’ column. Write the MySQL statement</p>				F101	Bijoy	Swimming	F102	Abhinav	Reading books	F103	Jyotsna	Dancing
F101	Bijoy	Swimming											
F102	Abhinav	Reading books											
F103	Jyotsna	Dancing											
7.	<p>Kelvin wants to add another column ‘Hobbies’ with datatype and size as VARCHAR(50) in the already existing table ‘Student’. She has written the following statement. However it has errors. Rewrite the correct statement.</p> <p>MODIFY TABLE Student Hobbies VARCHAR;</p>												
8.	<p>Ms. Olawale has just created a table named “Employee” containing columns Ename, Department, Salary.</p> <p>After creating the table, she realized that she has forgotten to add a primary key column in the table. Help her in writing SQL command to add a primary key column empid. Also state the importance of Primary key in a table.</p>												
9.	While creating a table 'Customer' Tobiloba wrongly added a primary key constraint to the field “CUSTNAME”. Now she wants to remove the primary key constraint from the custname field. Help her in writing the correct command.												
10.	Mr. Tj have added a not null constraint to the “name” field in “employees” table. But now he wants to remove that not null constraint. Write the command to delete the not null constraint from name field.												

My SQL Worksheet 4

(DML – INSERT INTO commands)

1.	Rama is not able to change a value in a column to NULL. What constraint did she specify when she created the table?												
2.	<p>Consider the table RESULT given below.</p> <p>Table : Result</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th>No</th> <th>Name</th> <th>Stipend</th> <th>Subject</th> <th>Average</th> <th>Division</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Sharon</td> <td>400</td> <td>English</td> <td>38</td> <td>THIRD</td> </tr> </tbody> </table> <p>Write command to insert a new row 6, "Mohan", 500, "English", 73, "Second"</p>	No	Name	Stipend	Subject	Average	Division	1	Sharon	400	English	38	THIRD
No	Name	Stipend	Subject	Average	Division								
1	Sharon	400	English	38	THIRD								
3.	<p>Consider the Table SHOPPE given below.</p> <p>Table SHOPPE :</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th>Code</th> <th>Item</th> <th>Company</th> <th>Qty</th> <th>City</th> <th>Price</th> </tr> </thead> <tbody> <tr> <td>102</td> <td>Biscuit</td> <td>Hide & Seek</td> <td>100</td> <td>Delhi</td> <td>10.00</td> </tr> </tbody> </table> <p>To insert a new row in the table Shoppe '110', 'Pizza' , 'Papa Jones', 120, "Kolkata", 50.0</p>	Code	Item	Company	Qty	City	Price	102	Biscuit	Hide & Seek	100	Delhi	10.00
Code	Item	Company	Qty	City	Price								
102	Biscuit	Hide & Seek	100	Delhi	10.00								
4.	How is NULL value different from 0 (zero) value?												
5.	<p>Consider the following table named "GYM"</p> <p>Table GYM:</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th>ICODE</th> <th>I NAME</th> <th>PRICE</th> <th>BRANDNAME</th> </tr> </thead> <tbody> <tr> <td>G101</td> <td>Power Fit Exerciser</td> <td>20000</td> <td>Power Gymea</td> </tr> </tbody> </table> <p>Add a new row for a new item in GYM with the details: "G107", "Vibro exerciser" ,21000, "GTCFitness"</p>	ICODE	I NAME	PRICE	BRANDNAME	G101	Power Fit Exerciser	20000	Power Gymea				
ICODE	I NAME	PRICE	BRANDNAME										
G101	Power Fit Exerciser	20000	Power Gymea										
6.	What is meant by NULL value in MySQL?												
7.	<p>Rewrite the following SQL statement after correcting error(s). Underline the corrections made.</p> <p><u>INSERT IN STUDENT(RNO,MARKS) VALUE (5,78.5);</u></p>												
8.	<p>Rewrite the following SQL statement after correcting error(s). Underline the corrections made.</p> <p><u>INSERT IN EMP(EMPNO, SALES) VALUE (100, 20078.50);</u></p>												
9.	<p>Charvi is inserting "Sharma" in the "LastName" column of the "Emp" table but an error is being displayed. Write the correct SQL statement.</p> <p><u>INSERT INTO Emp('rosh)VALUES(LastName) ;</u></p>												
10.	Anita has created the following table with the name 'Order'.												

Table : Order

Column Name	Constraint
OrderId	Primary Key
OrderDate	Not Null
OrderAmount	
StoreId	

One of the rows inserted is as follows :

OrderId	OrderDate	OrderAmount	StoreId
O101	2015-02-12	34000	S104

- (i) What is the data type of columns OrderId and OrderDate in the table Order ?
(ii) Anita is now trying to insert the following row :

OrderId	OrderDate	OrderAmount	StoreId
O102	NULL	59000	S105

Will she be able to successfully insert it ? Give reason.

11. In today's digitized world with a need to store data electronically, it is very important to store the data in the databases. SQL is used to interact with the Database Management System. Classify the following commands according to their type :(DDL/DML)
i. INSERT INTO ii. ALTER TABLE

12. Is NULL and 0(zero) same? Jusify your answer.

13. Write the full forms of the following:
i. DDL ii. DML

MySQL Worksheet 5
(DML – UPDATE and DELETE commands)

1.	What is the purpose of DROP TABLE command in SQL? How is it different from DELETE command?																												
2.	<p>In a database there are two tables "Product" as shown below :</p> <p>Table : PRODUCT</p> <table border="1"> <thead> <tr> <th>P_ID</th><th>ProductName</th><th>Manufacture</th><th>Price</th></tr> </thead> <tbody> <tr> <td>P001</td><td>Moisturiser</td><td>XYZ</td><td>40</td></tr> <tr> <td>P002</td><td>Sanitizer</td><td>LAC</td><td>35</td></tr> <tr> <td>P003</td><td>Bath Soap</td><td>COP</td><td>25</td></tr> <tr> <td>P004</td><td>Shampoo</td><td>TAP</td><td>95</td></tr> <tr> <td>P005</td><td>Lens Solution</td><td>COP</td><td>350</td></tr> </tbody> </table> <p>Write the command To increase the Price of all the Products by 20.</p>	P_ID	ProductName	Manufacture	Price	P001	Moisturiser	XYZ	40	P002	Sanitizer	LAC	35	P003	Bath Soap	COP	25	P004	Shampoo	TAP	95	P005	Lens Solution	COP	350				
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P003	Bath Soap	COP	25																										
P004	Shampoo	TAP	95																										
P005	Lens Solution	COP	350																										
3.	Write the UPDATE command to change “Sherifat” to “Shobowale” in the “LastName” column in the Employee table.																												
4.	What is the use of UPDATE statement in SQL ? How is it different from ALTER statement?																												
5.	<p>Consider the following table named "GYM"</p> <p>Table GYM:</p> <table border="1"> <thead> <tr> <th>ICODE</th><th>I NAME</th><th>PRICE</th><th>BRANDNAME</th></tr> </thead> <tbody> <tr> <td>G101</td><td>Power Fit Exerciser</td><td>20000</td><td>Power Gynea</td></tr> <tr> <td>G102</td><td>Aquafit Hand Grip</td><td>1800</td><td>Reliable</td></tr> <tr> <td>G103</td><td>Cycle Bike</td><td>14000</td><td>Ecobike</td></tr> <tr> <td>G104</td><td>Protuner Extreme Gym</td><td>30000</td><td>Coscore</td></tr> <tr> <td>G105</td><td>Message Belt</td><td>5000</td><td>MessagExpert</td></tr> <tr> <td>G106</td><td>Cross Trainer</td><td>13000</td><td>GTCFitness</td></tr> </tbody> </table> <p>Write command To change the Brandname to "Fit Trend Zee" of the item, whose ICODE as "G101".</p>	ICODE	I NAME	PRICE	BRANDNAME	G101	Power Fit Exerciser	20000	Power Gynea	G102	Aquafit Hand Grip	1800	Reliable	G103	Cycle Bike	14000	Ecobike	G104	Protuner Extreme Gym	30000	Coscore	G105	Message Belt	5000	MessagExpert	G106	Cross Trainer	13000	GTCFitness
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G105	Message Belt	5000	MessagExpert																										
G106	Cross Trainer	13000	GTCFitness																										
6.	Write the UPDATE statement in MySQL to increase commission by 100.00 in the “Commission” column in the ‘Emp’ table.																												
7.	Write two examples of DML commands of SQL.																												
8.	In a database there are two tables ‘CD’ and ‘TYPE’ as shown below :																												

Table : CD

CODE	TITLE	DURATION	SINGER	CATEGORY
101	Sufi Songs	50 min	Zakir Faiz	12
102	Eureka	45 min	Shyama Mukherjee	12
103	Nagmey	23 min	Sonvi Kumar	77
104	Dosti	35 min	Bobby	1

Table : TYPE

CATEGORY	DESCRIPTION
1	Jazz
12	Classical
40	Country Side
78	Pop

Write SQL statement to change the name of Singer “Sonvi Kumar” to “Sonvi Mehra” in all the places wherever it occurs in CD table.

9. Consider the following table named “GARMENT”.

Table : GARMENT

GCODE	GNAME	SIZE	COLOUR	PRICE
111	TShirt	XL	Red	1400.00
112	Jeans	L	Blue	1600.00
113	Skirt	M	Black	1100.00
114	Ladies Jacket	XL	Blue	4000.00
115	Trousers	L	Brown	1500.00
116	Ladies Top	L	Pink	1200.00

- 1) Write command To change the colour of garment with code as 116 to “Orange”.
- 2) Write command to increase the price of all XL garments by 10%
- 3) Write command to delete the record with GCode “116”

10. In a Database, there are two tables given below :

Table : EMPLOYEE

EMPLOYEEID	NAME	SALES	JOBID
E1	SAMIT SINHA	1100000	102
E2	VIJAY SINGH TOMAR	1300000	101
E3	AJAY RAJPAL	1400000	103
E4	MOHIT RAMNANI	1250000	102
E5	SHAILJA SINGH	1450000	103

Table : JOB

JOBID	JOBTITLE	SALARY
101	President	200000
102	Vice President	125000
103	Administration Assistant	80000
104	Accounting Manager	70000
105	Accountant	65000
106	Sales Manager	80000

Write SQL command to change the JOBID to 104 of the Employee with ID as E4 in the table ‘EMPLOYEE’.

11. In Marks column of ‘Student’ table, for Rollnumber 2, the Class Teacher entered the marks as 45. However there was a totaling error and the student has got her marks increased by 5. Which MySQL command should she use to change the marks in ‘Student’ table.

12. Chhavi has created a table named Orders, she has been asked to increase the value of a column named salesamount by 20. She has written the following query for the same.
Alter table Orders Add salesamount =salesamount+20;

	Is it the correct query? Justify.																																				
13.	<p>Consider the following table:</p> <p>Table: PharmaDB</p> <table border="1"> <thead> <tr> <th>RxID</th> <th>Drug ID</th> <th>DrugName</th> <th>Price</th> <th>Pharmacy Name</th> <th>PharmacyLocation</th> </tr> </thead> <tbody> <tr> <td>R1000</td> <td>5476</td> <td>Amlodipine</td> <td>100.00</td> <td>Rx Pharmacy</td> <td>Pitampura, Delhi</td> </tr> <tr> <td>R1001</td> <td>2345</td> <td>Paracetamol</td> <td>15.00</td> <td>Raj Medicos</td> <td>Bahadurgarh, Haryana</td> </tr> <tr> <td>R1002</td> <td>1236</td> <td>Nebistar</td> <td>60.00</td> <td>MyChemist</td> <td>Rajouri Garden, Delhi</td> </tr> <tr> <td>R1003</td> <td>6512</td> <td>VitaPlus</td> <td>150.00</td> <td>MyChemist</td> <td>Gurgaon, Haryana</td> </tr> <tr> <td>R1004</td> <td>5631</td> <td>Levocitrezine</td> <td>110.00</td> <td>RxPharmacy</td> <td>South Extension, Delhi</td> </tr> </tbody> </table> <p>Write commands in SQL to increase the price of “Amlodipine” by 50.</p>	RxID	Drug ID	DrugName	Price	Pharmacy Name	PharmacyLocation	R1000	5476	Amlodipine	100.00	Rx Pharmacy	Pitampura, Delhi	R1001	2345	Paracetamol	15.00	Raj Medicos	Bahadurgarh, Haryana	R1002	1236	Nebistar	60.00	MyChemist	Rajouri Garden, Delhi	R1003	6512	VitaPlus	150.00	MyChemist	Gurgaon, Haryana	R1004	5631	Levocitrezine	110.00	RxPharmacy	South Extension, Delhi
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Informatics Practices
My SQL Worksheet-6
(DML – SELECT command)

1.	Pooja, a student of class XI, created a table "Book". Price is a column of this table. To find the details of books whose prices have not been entered she wrote the following query: <pre>Select * from Book where Price = NULL;</pre>																																																															
2.	The LastName column of a table "Directory" is given below: <table border="1" style="display: inline-table; vertical-align: middle;"> <thead> <tr> <th>Lastname</th> </tr> </thead> <tbody> <tr><td>Batra</td></tr> <tr><td>Sehgal</td></tr> <tr><td>Bhatia</td></tr> <tr><td>Sharma</td></tr> <tr><td>Mehta</td></tr> </tbody> </table> Based on this information, find the output of the following queries: a) <code>SELECT lastname FROM Directory WHERE lastname like "%a%";</code> b) <code>SELECT lastname FROM Directory WHERE lastname not like "%a";</code>	Lastname	Batra	Sehgal	Bhatia	Sharma	Mehta																																																									
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Sehgal																																																																
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Sharma																																																																
Mehta																																																																
3.	Consider the table TEACHER given below. Write commands in SQL for (1) to (3) and output for (4) <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>ID</th><th>Name</th><th>Department</th><th>Hiredate</th><th>Category</th><th>Gender</th><th>Salary</th></tr> </thead> <tbody> <tr><td>1</td><td>Tanya Nanda</td><td>SocialStudies</td><td>1994-03-17</td><td>TGT</td><td>F</td><td>25000</td></tr> <tr><td>2</td><td>Saurabh Sharma</td><td>Art</td><td>1990-02-12</td><td>PRT</td><td>M</td><td>20000</td></tr> <tr><td>3</td><td>Nandita Arora</td><td>English</td><td>1980-05-16</td><td>PGT</td><td>F</td><td>30000</td></tr> <tr><td>4</td><td>James Jacob</td><td>English</td><td>1989-10-16</td><td>TGT</td><td>M</td><td>25000</td></tr> <tr><td>5</td><td>Jaspreet Kaur</td><td>Hindi</td><td>1990-08-01</td><td>PRT</td><td>F</td><td>22000</td></tr> <tr><td>6</td><td>Disha Sehgal</td><td>Math</td><td>1980-03-17</td><td>PRT</td><td>F</td><td>21000</td></tr> <tr><td>7</td><td>Siddharth Kapoor</td><td>Science</td><td>1994-09-02</td><td>TGT</td><td>M</td><td>27000</td></tr> <tr><td>8</td><td>Sonali Mukherjee</td><td>Math</td><td>1980-11-17</td><td>TGT</td><td>F</td><td>24500</td></tr> </tbody> </table> <ul style="list-style-type: none"> i. To display all information about teachers of PGT category. ii. To list the names of female teachers of Hindi department. iii. To list names, departments and date of hiring of all the teachers in ascending order of date of joining iv. <code>SELECT DISTINCT(category) FROM teacher;</code> 	ID	Name	Department	Hiredate	Category	Gender	Salary	1	Tanya Nanda	SocialStudies	1994-03-17	TGT	F	25000	2	Saurabh Sharma	Art	1990-02-12	PRT	M	20000	3	Nandita Arora	English	1980-05-16	PGT	F	30000	4	James Jacob	English	1989-10-16	TGT	M	25000	5	Jaspreet Kaur	Hindi	1990-08-01	PRT	F	22000	6	Disha Sehgal	Math	1980-03-17	PRT	F	21000	7	Siddharth Kapoor	Science	1994-09-02	TGT	M	27000	8	Sonali Mukherjee	Math	1980-11-17	TGT	F	24500
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4.	The Item_No and Cost columns of a table "ITEMS" are given below: <table border="1" style="display: inline-table; vertical-align: middle;"> <thead> <tr> <th>ITEM_NO</th><th>COST</th></tr> </thead> <tbody> <tr><td>101</td><td>5000</td></tr> <tr><td>102</td><td>NULL</td></tr> <tr><td>103</td><td>4000</td></tr> <tr><td>104</td><td>6000</td></tr> <tr><td>105</td><td>NULL</td></tr> </tbody> </table> Based on this information, find the output of the following queries: a) <code>SELECT COST +100 FROM ITEMS WHERE ITEM_NO > 103;</code>	ITEM_NO	COST	101	5000	102	NULL	103	4000	104	6000	105	NULL																																																			
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5.	Consider the table Projects given below. Write commands in SQL for i) to iii) and output for iv) 																																																															

PROJECTS

ID	ProjName	ProjSize	StartDate	EndDate	Cost
1	Payroll-MMS	Medium	2006-03-17	2006-09-16	60000
2	Payroll-ITC	Large	2008-02-12	2008-01-11	500000
3	IDMgmt-LITL	Large	2008-06-13	2009-05-21	300000
4	Recruit-LITL	Medium	2008-03-18	2008-06-01	50000
5	IDMgmt-MTC	Small	2007-01-15	2007-01-29	20000
6	Recruit-ITC	Medium	2007-03-01	2007-06-28	50000

- i. To display all information about projects of "Medium" ProjSize
- ii. To list the ProjSize of projects whose ProjName ends with LITL.
- iii. To list ID, Name, Size, and Cost of all the projects in descending order of StartDate.
- iv. SELECT DISTINCT ProjSize FROM projects

6. The Mname Column of a table Members is given below :

Mname
Aakash
Hirav
Vinayak
Sheetal
Rajeev

Based on the information, find the output of the following queries :

- (i) Select Mname from members where mname like "%v" ;
- (ii) Select Mname from members where mname like "%e%" ;

7. Sarthya, a student of class XI, created a table "RESULT". Grade is one of the column of this table. To find the details of students whose Grades have not been entered, he wrote the following MySql query, which did not give the desired result.

SELECT * FROM Result WHERE Grade= "Null";

Help Sarthya to run the query by removing the errors from the query and write the correct Query.

8. Consider the table RESULT given below. Write commands in MySql for (i) to (ii)

Table : Result

No	Name	Stipend	Subject	Average	Division
1	Sharon	400	English	38	THIRD
2	Amal	680	Mathematics	72	FIRST
3	Vedant	500	Accounts	67	FIRST
4	Shakeer	200	Informatics	55	SECOND
5	Anandha	400	History	85	FIRST
6	Upasna	550	Geography	45	THIRD

- (i) To list the names of those students, who have obtained Division as FIRST in the ascending order of NAME.
- (ii) To display a report listing NAME, SUBJECT and Annual stipend received assuming that the stipend column has monthly stipend.

i)

9. Mr. Janak is using a table with following columns :

Name , Class , Course_Id, Course_name

He needs to display names of students, who have not been assigned any stream or have been assigned Course_name that ends with "economics". He wrote the following command, which did not give the desired result.

SELECT Name, Class FROM Students WHERE Course name = NULL OR Course name=%economics%;

Help Mr. J anak to run the query by removing the error and write the correct query.

10	<p>Consider the Table SHOPPE given below. Write command in MySql for (i) to (ii)</p> <p>Table SHOPPE :</p> <table border="1"> <thead> <tr> <th>Code</th><th>Item</th><th>Company</th><th>Qty</th><th>City</th><th>Price</th></tr> </thead> <tbody> <tr> <td>102</td><td>Biscuit</td><td>Hide & Seek</td><td>100</td><td>Delhi</td><td>10.00</td></tr> <tr> <td>103</td><td>Jam</td><td>Kissan</td><td>110</td><td>Kolkata</td><td>25.00</td></tr> <tr> <td>101</td><td>Coffee</td><td>Nestle</td><td>200</td><td>Kolkata</td><td>55.00</td></tr> <tr> <td>106</td><td>Sauce</td><td>Maggi</td><td>56</td><td>Mumbai</td><td>55.00</td></tr> </tbody> </table> <p>(i) To display names of the items whose name starts with 'C' in ascending order of Price. (ii) To display Code, Item name and City of the products whose quantity is less than 100.</p> <table border="1"> <tr> <td>107</td><td>i) Cake</td><td>Britannia</td><td>72</td><td>Delhi</td><td>10.00</td></tr> <tr> <td>104</td><td>ii) Maggi</td><td>Nestle</td><td>150</td><td>Mumbai</td><td>10.00</td></tr> <tr> <td>105</td><td>Chocolate</td><td>Cadbury</td><td>170</td><td>Delhi</td><td>25.00</td></tr> </table>	Code	Item	Company	Qty	City	Price	102	Biscuit	Hide & Seek	100	Delhi	10.00	103	Jam	Kissan	110	Kolkata	25.00	101	Coffee	Nestle	200	Kolkata	55.00	106	Sauce	Maggi	56	Mumbai	55.00	107	i) Cake	Britannia	72	Delhi	10.00	104	ii) Maggi	Nestle	150	Mumbai	10.00	105	Chocolate	Cadbury	170	Delhi	25.00								
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11	What is used in the SELECT clause to return all the columns in the table?																																																								
12	<p>In MySQL, Sumit and Fauzia are getting the following outputs of ItemCodes for SELECT statements used by them on a table named ITEM.(Both have used the SELECT statements on the same table ITEM).</p> <p>Sumit's Output</p> <table border="1"> <tr><td>101</td></tr> <tr><td>102</td></tr> <tr><td>101</td></tr> <tr><td>105</td></tr> <tr><td>101</td></tr> <tr><td>107</td></tr> </table> <p>Fauzia's Output</p> <table border="1"> <tr><td>101</td></tr> <tr><td>102</td></tr> <tr><td>105</td></tr> <tr><td>107</td></tr> </table> <p>Which extra keyword has Fauzia used with SELECT statement to get the above output?</p>	101	102	101	105	101	107	101	102	105	107																																														
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13	<p>Consider the table 'PERSONS' given below. Write commands in SQL for (i) to (iv) and write output for (v).</p> <p>(c) Consider the table PERSONS given below. Write commands in SQL for (i) to (iv) and write output for (v) to (viii).</p> <p>Table : PERSONS</p> <table border="1"> <thead> <tr> <th>PId</th><th>Surname</th><th>Firstname</th><th>Gender</th><th>City</th><th>PinCode</th><th>BasicSalary</th></tr> </thead> <tbody> <tr> <td>1</td><td>Sharma</td><td>Geeta</td><td>F</td><td>Udhamwara</td><td>182141</td><td>50000</td></tr> <tr> <td>2</td><td>Singh</td><td>Surinder</td><td>M</td><td>Kupwara Nagar</td><td>193222</td><td>75000</td></tr> <tr> <td>3</td><td>Jacob</td><td>Peter</td><td>M</td><td>Bhawani</td><td>185155</td><td>45000</td></tr> <tr> <td>4</td><td>Alvis</td><td>Thomas</td><td>M</td><td>Ahmed Nagar</td><td>380025</td><td>50000</td></tr> <tr> <td>5</td><td>Mohan</td><td>Garima</td><td>M</td><td>Nagar Coolangatta</td><td>390026</td><td>33000</td></tr> <tr> <td>6</td><td>Azmi</td><td>Simi</td><td>F</td><td>New Delhi</td><td>110021</td><td>40000</td></tr> <tr> <td>7</td><td>Kaur</td><td>Manpreet</td><td>F</td><td>Udhamwara</td><td>182141</td><td>42000</td></tr> </tbody> </table> <p>(i) Display the Surnames, FirstNames and Cities of people residing in Udhamwara city. (ii) Display the Person Ids (PID), cities and Pincodes of persons in descending order of Pincodes. (iii) Display the First Names and cities of all the females getting Basic salaries above 40000. (iv) Display First Names and Basic Salaries of all the persons whose firstnames starts with "G".</p> <p>(v) SELECT Surname FROM Persons Where BasicSalary>=50000;</p>	PId	Surname	Firstname	Gender	City	PinCode	BasicSalary	1	Sharma	Geeta	F	Udhamwara	182141	50000	2	Singh	Surinder	M	Kupwara Nagar	193222	75000	3	Jacob	Peter	M	Bhawani	185155	45000	4	Alvis	Thomas	M	Ahmed Nagar	380025	50000	5	Mohan	Garima	M	Nagar Coolangatta	390026	33000	6	Azmi	Simi	F	New Delhi	110021	40000	7	Kaur	Manpreet	F	Udhamwara	182141	42000
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14	<p>Mr. Tondon is using table EMP with the following columns. ECODE, DEPT, ENAME, SALARY</p> <p>He wants to display all information of employees (from EMP table) in ascending order of ENAME and within it in ascending order of DEPT. He wrote the following command, which did not show the desired output.</p> <p>SELECT * FROM EMP ORDER BY NAME DESC,DEPT;</p>																																																								

	Rewrite the above query to get the desired output.																																								
15 .	<p>Consider the following table named "GYM" with details about fitness items being sold in the store. Write command of SQL for (i) to (ii).</p> <p>Table GYM:</p> <table border="1"> <thead> <tr> <th>ICODE</th> <th>INAME</th> <th>PRICE</th> <th>BRANDNAME</th> </tr> </thead> <tbody> <tr> <td>G101</td> <td>Power Fit Exerciser</td> <td>20000</td> <td>Power Gymea</td> </tr> <tr> <td>G102</td> <td>Aquafit Hand Grip</td> <td>1800</td> <td>Reliable</td> </tr> <tr> <td>G103</td> <td>Cycle Bike</td> <td>14000</td> <td>Ecobike</td> </tr> <tr> <td>G104</td> <td>Protoner Extreme Gym</td> <td>30000</td> <td>Coscore</td> </tr> </tbody> </table> <p>(i) To display the names of all the items whose name starts with "A". (ii) To display ICODEs and INAMES of all items, whose Brandname is Reliable or Coscore.</p> <table border="1"> <tr> <td>G105 i)</td> <td>Message Belt</td> <td>5000</td> <td>MessagExpert</td> </tr> <tr> <td>G106</td> <td>Cross Trainer</td> <td>13000</td> <td>GTCFitness</td> </tr> </table>	ICODE	INAME	PRICE	BRANDNAME	G101	Power Fit Exerciser	20000	Power Gymea	G102	Aquafit Hand Grip	1800	Reliable	G103	Cycle Bike	14000	Ecobike	G104	Protoner Extreme Gym	30000	Coscore	G105 i)	Message Belt	5000	MessagExpert	G106	Cross Trainer	13000	GTCFitness												
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16 .	<p>Consider the following table named 'SBOP" with details of account holders. Write commands of MySql for (i) to (ii) and output for (iii).</p> <p>Table : SBOP</p> <table border="1"> <thead> <tr> <th>Accountno</th> <th>Name</th> <th>Balance</th> <th>DateOfopen</th> <th>Transaction</th> </tr> </thead> <tbody> <tr> <td>SB-1</td> <td>Mr.Anil</td> <td>15000.00</td> <td>2011-02-24</td> <td>7</td> </tr> <tr> <td>SB-2</td> <td>Mr.Amit</td> <td>23567.89</td> <td></td> <td>8</td> </tr> <tr> <td>SB-3</td> <td>Mr.Sakshi</td> <td>45000.00</td> <td>2012-02-04</td> <td>5</td> </tr> <tr> <td>SB-4</td> <td>Mr.Gopal</td> <td>23812.35</td> <td>2013-09-22</td> <td></td> </tr> <tr> <td>SB-5</td> <td>Mr.Dennis</td> <td>63459.80</td> <td>2009-11-10</td> <td>15</td> </tr> </tbody> </table> <p>(i) To display Accountno, Name and DateOfopen of account holders having transactions more than 8. (ii) To display all information of account holders whose transaction value is not mentioned. (iii) SELECT NAME,BALANCE FROM SBOP WHERE NAME LIKE "%i";</p>	Accountno	Name	Balance	DateOfopen	Transaction	SB-1	Mr.Anil	15000.00	2011-02-24	7	SB-2	Mr.Amit	23567.89		8	SB-3	Mr.Sakshi	45000.00	2012-02-04	5	SB-4	Mr.Gopal	23812.35	2013-09-22		SB-5	Mr.Dennis	63459.80	2009-11-10	15										
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17 .	When using the LIKE clause, which wildcard symbol represents any sequence of none, one or more characters ?																																								
18 .	<p>Consider the table FLIGHT given below. Write commands in SQL for (i) to (iv) and output for (v).</p> <p>Table : FLIGHT</p> <table border="1"> <thead> <tr> <th>FLCODE</th> <th>START</th> <th>DESTINATION</th> <th>NO_STOPS</th> <th>NO_FLIGHTS</th> </tr> </thead> <tbody> <tr> <td>IC101</td> <td>DELHI</td> <td>AGARTALA</td> <td>1</td> <td>5</td> </tr> <tr> <td>IC102</td> <td>MUMBAI</td> <td>SIKKIM</td> <td>1</td> <td>3</td> </tr> <tr> <td>IC103</td> <td>DELHI</td> <td>JAIPUR</td> <td>0</td> <td>7</td> </tr> <tr> <td>IC105</td> <td>KANPUR</td> <td>CHENNAI</td> <td>2</td> <td>2</td> </tr> <tr> <td>IC107</td> <td>MUMBAI</td> <td>KANPUR</td> <td>0</td> <td>4</td> </tr> <tr> <td>IC431</td> <td>INDORE</td> <td>CHENNAI</td> <td>3</td> <td>2</td> </tr> <tr> <td>IC121</td> <td>DELHI</td> <td>AHMEDABAD</td> <td>2</td> <td>6</td> </tr> </tbody> </table> <p>(i) Display details of all flights starting from Delhi. (ii) Display details of flights that have more than 4 number of flights operating. (iii) Display flight codes, starting place, destination, number of flights in descending order of number of flights. (iv) Display destinations along with flight codes of all the destinations starting with 'A'. (v) SELECT DISTINCT(NO_STOPS) FROM FLIGHT;</p>	FLCODE	START	DESTINATION	NO_STOPS	NO_FLIGHTS	IC101	DELHI	AGARTALA	1	5	IC102	MUMBAI	SIKKIM	1	3	IC103	DELHI	JAIPUR	0	7	IC105	KANPUR	CHENNAI	2	2	IC107	MUMBAI	KANPUR	0	4	IC431	INDORE	CHENNAI	3	2	IC121	DELHI	AHMEDABAD	2	6
FLCODE	START	DESTINATION	NO_STOPS	NO_FLIGHTS																																					
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IC121	DELHI	AHMEDABAD	2	6																																					
19 .	<p>What will be the output of the following queries on the basis of Employee table:</p> <table border="1"> <tr> <td>Empld</td> <td>EName</td> <td>Salary</td> </tr> </table> <p>(i) Select Salary+100 from Employee where Empld='A002';</p> <table border="1"> <tr> <td>A001</td> <td>Bob</td> <td>5600</td> </tr> <tr> <td>A002</td> <td>John</td> <td>NULL</td> </tr> </table>	Empld	EName	Salary	A001	Bob	5600	A002	John	NULL																															
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20 .	<p>Pranay, who is an Indian, created a table named “Friends” to store his friend’s detail.</p> <table border="1"> <thead> <tr> <th>S_No</th> <th>Name</th> <th>Age</th> <th>City</th> <th>Country</th> <th>Email_id</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Alice</td> <td>14</td> <td>Washington</td> <td>USA</td> <td>alice@gmail.com</td> </tr> <tr> <td>2</td> <td>Charles</td> <td>12</td> <td>Copenhagen</td> <td>Denmark</td> <td>charles@yahoo.com</td> </tr> <tr> <td>3</td> <td>Angel</td> <td>16</td> <td>Chicago</td> <td>USA</td> <td>angel@gmail.com</td> </tr> <tr> <td>4</td> <td>Jasmine</td> <td>15</td> <td>Sydney</td> <td>Australia</td> <td>jasmine@yahoo.com</td> </tr> <tr> <td>5</td> <td>Raj</td> <td>14</td> <td>New Delhi</td> <td>India</td> <td>raj@gmail.com</td> </tr> <tr> <td>6</td> <td>Jette</td> <td>13</td> <td>Nykobing</td> <td>Denmark</td> <td>jette@gmail.com</td> </tr> <tr> <td>7</td> <td>Alexender</td> <td>15</td> <td>Melbourne</td> <td>Australia</td> <td>NULL</td> </tr> <tr> <td>8</td> <td>Shashank</td> <td>16</td> <td>Banglore</td> <td>India</td> <td>NULL</td> </tr> </tbody> </table> <p>Table “Friends” is shown below. Write commands in SQL for (i) to (iii) and output for (iv).</p> <p>i. To display list of all foreigner friends.</p> <p>ii. To list name, city and country in descending order of age.</p> <p>iii. To list name and city of those friends who don’t have an email id.</p> <p>iv. Select name, country from friends where age>12 and name like ‘A%’;</p>	S_No	Name	Age	City	Country	Email_id	1	Alice	14	Washington	USA	alice@gmail.com	2	Charles	12	Copenhagen	Denmark	charles@yahoo.com	3	Angel	16	Chicago	USA	angel@gmail.com	4	Jasmine	15	Sydney	Australia	jasmine@yahoo.com	5	Raj	14	New Delhi	India	raj@gmail.com	6	Jette	13	Nykobing	Denmark	jette@gmail.com	7	Alexender	15	Melbourne	Australia	NULL	8	Shashank	16	Banglore	India	NULL	
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21 .	<p>Consider the following table named “GARMENT”. Write command of SQL for (i) to (iv) and output for (v) to (vii).</p> <p style="text-align: center;">Table : GARMENT</p> <table border="1"> <thead> <tr> <th>GCODE</th> <th>GNAME</th> <th>SIZE</th> <th>COLOUR</th> <th>PRICE</th> </tr> </thead> <tbody> <tr> <td>111</td> <td>TShirt</td> <td>XL</td> <td>Red</td> <td>1400.00</td> </tr> <tr> <td>112</td> <td>Jeans</td> <td>L</td> <td>Blue</td> <td>1600.00</td> </tr> <tr> <td>113</td> <td>Skirt</td> <td>M</td> <td>Black</td> <td>1100.00</td> </tr> <tr> <td>114</td> <td>Ladies Jacket</td> <td>XL</td> <td>Blue</td> <td>4000.00</td> </tr> <tr> <td>115</td> <td>Trousers</td> <td>L</td> <td>Brown</td> <td>1500.00</td> </tr> <tr> <td>116</td> <td>Ladies Top</td> <td>L</td> <td>Pink</td> <td>1200.00</td> </tr> </tbody> </table> <p>(i) To display names of those garments that are available in ‘XL’ size.</p> <p>(ii) To display codes and names of those garments that have their names starting with ‘Ladies’.</p> <p>(iii) To display garment names, codes and prices of those garments that have price in the range 1000.00 to 1500.00 (both 1000.00 and 1500.00 included).</p> <p>(iv) SELECT GNAME FROM GARMENT WHERE SIZE IN ('M', 'L') AND PRICE > 1500;</p>	GCODE	GNAME	SIZE	COLOUR	PRICE	111	TShirt	XL	Red	1400.00	112	Jeans	L	Blue	1600.00	113	Skirt	M	Black	1100.00	114	Ladies Jacket	XL	Blue	4000.00	115	Trousers	L	Brown	1500.00	116	Ladies Top	L	Pink	1200.00																				
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23 .	<p>Consider the table ‘Employee’.</p> <table border="1"> <thead> <tr> <th>Name</th> <th>Location</th> </tr> </thead> <tbody> <tr> <td>Gurpreet</td> <td>Mumbai</td> </tr> <tr> <td>Jatinder</td> <td>Chennai</td> </tr> <tr> <td>Deepa</td> <td>Mumbai</td> </tr> <tr> <td>Harsh</td> <td>Chennai</td> </tr> <tr> <td>Simi</td> <td>New Delhi</td> </tr> <tr> <td>Anita</td> <td>Bengaluru</td> </tr> </tbody> </table> <p>Write the SQL command to obtain the following output :</p> <table border="1"> <thead> <tr> <th>Location</th> </tr> </thead> <tbody> <tr> <td>Mumbai</td> </tr> <tr> <td>Chennai</td> </tr> <tr> <td>New Delhi</td> </tr> <tr> <td>Bengaluru</td> </tr> </tbody> </table>	Name	Location	Gurpreet	Mumbai	Jatinder	Chennai	Deepa	Mumbai	Harsh	Chennai	Simi	New Delhi	Anita	Bengaluru	Location	Mumbai	Chennai	New Delhi	Bengaluru																																				
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24 .	<p>Table “Emp” is shown below. Write commands in SQL for (i) to (iii) and output for (iv) and (v) and (vi)</p> <table border="1"> <thead> <tr> <th>ID</th><th>NAME</th><th>AGE</th><th>ADDRESS</th><th>SALARY</th><th>PHONE</th></tr> </thead> <tbody> <tr> <td>1</td><td>Siddharth</td><td>25</td><td>A-4, Ashok Vihar, Delhi</td><td>62000</td><td>98110766656</td></tr> <tr> <td>2</td><td>Chavi</td><td>23</td><td>B-21, Model Town, Mumbai</td><td>71000</td><td>99113423989</td></tr> <tr> <td>3</td><td>Karan</td><td>26</td><td>KC-24, North Avenue, Bhopal</td><td>65000</td><td>98105393578</td></tr> <tr> <td>4</td><td>Raunaq</td><td>22</td><td>A-152, Gomti Nagar, Lucknow</td><td>89000</td><td>99101393576</td></tr> <tr> <td>5</td><td>Kunal</td><td>27</td><td>B-5/45, Uday Park, Delhi</td><td>80000</td><td>97653455654</td></tr> </tbody> </table> <p>i. To display list of all employees below 25 years old. ii. To list names and respective salaries in descending order of salary. iii. To list names and addresses of those persons who have ‘Delhi’ in their address. iv. SELECT Name, Salary FROM Emp where salary between 50000 and 70000; v. SELECT Name, phone from emp where phone like ‘99%’;</p>	ID	NAME	AGE	ADDRESS	SALARY	PHONE	1	Siddharth	25	A-4, Ashok Vihar, Delhi	62000	98110766656	2	Chavi	23	B-21, Model Town, Mumbai	71000	99113423989	3	Karan	26	KC-24, North Avenue, Bhopal	65000	98105393578	4	Raunaq	22	A-152, Gomti Nagar, Lucknow	89000	99101393576	5	Kunal	27	B-5/45, Uday Park, Delhi	80000	97653455654						
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25 .	<p>Mrs. Sen entered the following SQL statement to display all Salespersons of the cities “Chennai” and ‘Mumbai’ from the table ‘Sales’.</p> <table border="1"> <thead> <tr> <th>Scode</th><th>Name</th><th>City</th></tr> </thead> <tbody> <tr> <td>101</td><td>Aakriti</td><td>Mumbai</td></tr> <tr> <td>102</td><td>Aman</td><td>Chennai</td></tr> <tr> <td>103</td><td>Banit</td><td>Delhi</td></tr> <tr> <td>104</td><td>Fauzia</td><td>Mumbai</td></tr> </tbody> </table> <p>SELECT * FROM Sales WHERE City=‘Chennai’ AND City=‘Mumbai’;</p> <p>Rewrite the correct statement, if wrong or write statement is correct.</p>	Scode	Name	City	101	Aakriti	Mumbai	102	Aman	Chennai	103	Banit	Delhi	104	Fauzia	Mumbai																											
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26 .	<p>Write commands in SQL for (i) to (iii) and output for (iv).</p> <p>Table : Store</p> <table border="1"> <thead> <tr> <th>StoreId</th><th>Name</th><th>Location</th><th>City</th><th>NoOfEmployee</th><th>DateOpen</th><th>SalesAmou</th></tr> </thead> <tbody> <tr> <td>S101</td><td>Planetfashio</td><td>KarolBagh</td><td>Delhi</td><td>7</td><td>2015-10-16</td><td>300000</td></tr> <tr> <td>S102</td><td>Trends</td><td>Nehru Nagar</td><td>Mumbai</td><td>11</td><td>2015-08-09</td><td>400000</td></tr> <tr> <td>S103</td><td>Vogue</td><td>Vikas Vihar</td><td>Delhi</td><td>10</td><td>2015-06-27</td><td>200000</td></tr> <tr> <td>S104</td><td>Superfashion</td><td>Defence Colony</td><td>Delhi</td><td>8</td><td>2015-02-18</td><td>450000</td></tr> <tr> <td>S105</td><td>Rage</td><td>Bandra</td><td>Mumbai</td><td>5</td><td>2015-09-22</td><td>600000</td></tr> </tbody> </table> <p>(i) To display name, location, city, SalesAmount of stores in descending order of SalesAmount. (ii) To display names of stores along with SalesAmount of those stores that have ‘fashion’ anywhere in their store names. (iii) To display Stores names, Location and Date Opened of stores that were opened before 1st March, 2015. (iv) SELECT distinct city FROM store;</p> <p>i)</p>	StoreId	Name	Location	City	NoOfEmployee	DateOpen	SalesAmou	S101	Planetfashio	KarolBagh	Delhi	7	2015-10-16	300000	S102	Trends	Nehru Nagar	Mumbai	11	2015-08-09	400000	S103	Vogue	Vikas Vihar	Delhi	10	2015-06-27	200000	S104	Superfashion	Defence Colony	Delhi	8	2015-02-18	450000	S105	Rage	Bandra	Mumbai	5	2015-09-22	600000
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27 .	<p>Which clause would you use with Select to achieve the following:</p> <ul style="list-style-type: none"> i.To select the values that match with any value in a list of specified values. ii.Used to display unrepeatable values of a column from a table. 																																				
28 .	<p>Consider the following table:</p> <p>Table: PharmaDB</p> <table border="1"> <thead> <tr> <th>RxID</th><th>Drug ID</th><th>DrugName</th><th>Price</th><th>Pharmacy Name</th><th>PharmacyLocation</th></tr> </thead> <tbody> <tr> <td>R1000</td><td>5476</td><td>Amlodipine</td><td>100.00</td><td>Rx Pharmacy</td><td>Pitampura, Delhi</td></tr> <tr> <td>R1001</td><td>2345</td><td>Paracetamol</td><td>15.00</td><td>Raj Medicos</td><td>Bahadurgarh, Haryana</td></tr> <tr> <td>R1002</td><td>1236</td><td>Nebistar</td><td>60.00</td><td>MyChemist</td><td>Rajouri Garden, Delhi</td></tr> <tr> <td>R1003</td><td>6512</td><td>VitaPlus</td><td>150.00</td><td>MyChemist</td><td>Gurgaon, Haryana</td></tr> <tr> <td>R1004</td><td>5631</td><td>Levocitrezine</td><td>110.00</td><td>RxPharma</td><td>South</td></tr> </tbody> </table> <p>iv. <u>SELECT RxID, DrugName, Price from PharmaDB where PharmacyName IN (“Rx Pharmacy”, “Raj Medicos”);</u></p> <p>Write commands in SQL for (i) to (iii) and output for (iv):</p> <ul style="list-style-type: none"> i. To increase the price of “Amlodipine” by 50. ii. To display all those medicines whose price is in the range 100 to 150. iii. To display the Drug ID, DrugName and Pharmacy Name of all the records in descending order of their price. 	RxID	Drug ID	DrugName	Price	Pharmacy Name	PharmacyLocation	R1000	5476	Amlodipine	100.00	Rx Pharmacy	Pitampura, Delhi	R1001	2345	Paracetamol	15.00	Raj Medicos	Bahadurgarh, Haryana	R1002	1236	Nebistar	60.00	MyChemist	Rajouri Garden, Delhi	R1003	6512	VitaPlus	150.00	MyChemist	Gurgaon, Haryana	R1004	5631	Levocitrezine	110.00	RxPharma	South
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29 .	<p>Write SQL statement that gives the same output as the following SQL statement but uses ‘IN’ keyword.</p> <p>SELECT NAME FROM STUDENT WHERE STATE = ‘VA’ ;</p>																																				
30 .	<p>Which one of the following SQL queries will display all Employee records containing the word “Amit”, regardless of case (whether it was stored as AMIT, Amit, or amit etc.) ?</p> <ul style="list-style-type: none"> (i) SELECT * from Employees WHERE EmpName like UPPER ‘%AMIT%’; (ii) SELECT * from Employees WHERE EmpName like ‘%AMIT%’ or ‘%AMIT%’ OR ‘%amit%’; (iii) SELECT * from Employees WHERE UPPER (EmpName) like ‘%AMIT%’; 																																				
31 .	<p>Write Answer to (i). Write SQL queries for (ii) to (vii).</p> <p>(Table : Salesperson)</p> <table border="1"> <thead> <tr> <th>SID</th><th>Name</th><th>Phone</th><th>DOB</th><th>Salary</th><th>Area</th></tr> </thead> <tbody> <tr> <td>S101</td><td>Amit Kumar</td><td>98101789654</td><td>1967-01-23</td><td>67000.00</td><td>North</td></tr> <tr> <td>S102</td><td>Deepika Sharma</td><td>99104567834</td><td>1992-09-23</td><td>32000.00</td><td>South</td></tr> <tr> <td>S103</td><td>Vinay Srivastav</td><td>98101546789</td><td>1991-06-27</td><td>35000.00</td><td>North</td></tr> <tr> <td>S104</td><td>Kumar Mehta</td><td>88675345789</td><td>1967-10-16</td><td>40000.00</td><td>East</td></tr> <tr> <td>S105</td><td>Rashmi Kumar</td><td>98101567434</td><td>1972-09-20</td><td>50000.00</td><td>South</td></tr> </tbody> </table>	SID	Name	Phone	DOB	Salary	Area	S101	Amit Kumar	98101789654	1967-01-23	67000.00	North	S102	Deepika Sharma	99104567834	1992-09-23	32000.00	South	S103	Vinay Srivastav	98101546789	1991-06-27	35000.00	North	S104	Kumar Mehta	88675345789	1967-10-16	40000.00	East	S105	Rashmi Kumar	98101567434	1972-09-20	50000.00	South
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	<p>Note : Columns SID and DOB contain Sales Person Id and Data of Birth respectively.</p> <ul style="list-style-type: none"> (i) Write the data types of SID and DOB columns. (ii) Display names of Salespersons and their Salaries who have salaries in the range 30000.00 to 40000.00 (iii) To list Names, Phone numbers and DOB (Date of Birth) of Salespersons who were born before 1st November, 1992. (iv) To display Names and Salaries of Salespersons in descending order of salary. (v) To display areas in which Salespersons are working. Duplicate Areas should not be displayed. (vi) To display SID, Names along with Salaries increased by 500. (Increase of 500 is only to be displayed and not to be updated in the table) (vii) To display Names of Salespersons who have the word ‘Kumar’ anywhere in their names.
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i.

32 .	<p>Write the following statement using ‘OR’ logical operator :</p> <pre>SELECT first_name, last_name, subject FROM studentdetails WHERE subject IN ('Maths', 'Science');</pre>
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33 .	<p>Consider the Table “Gym” shown below. Write commands in SQL for (i) to (vi) :</p> <p>Table : Gym</p> <table border="1"> <thead> <tr> <th>Mcode</th><th>Mname</th><th>Gender</th><th>Age</th><th>FeeGiven</th><th>Type</th><th>DtAdmit</th></tr> </thead> <tbody> <tr> <td>1</td><td>Amit</td><td>Male</td><td>35</td><td>6000</td><td>Monthly</td><td>2016-01-23</td></tr> <tr> <td>2</td><td>Rashmi</td><td>Female</td><td>25</td><td>8000</td><td>Monthly</td><td>2016-09-23</td></tr> <tr> <td>3</td><td>George</td><td>Male</td><td>42</td><td>24000</td><td>Yearly</td><td>2011-06-27</td></tr> <tr> <td>4</td><td>Fawad</td><td>Male</td><td>27</td><td>12000</td><td>Quarterly</td><td>2012-10-16</td></tr> <tr> <td>5</td><td>Samit</td><td>Male</td><td>54</td><td>6000</td><td>Monthly</td><td>2015-09-20</td></tr> <tr> <td>6</td><td>Lakshmi</td><td>Female</td><td>43</td><td>4500</td><td>Monthly</td><td>2016-01-15</td></tr> <tr> <td>7</td><td>Samita</td><td>Female</td><td>22</td><td>500</td><td>Guest</td><td>2017-01-23</td></tr> <tr> <td>8</td><td>Michael</td><td>Male</td><td>51</td><td>24000</td><td>Yearly</td><td>2013-07-18</td></tr> <tr> <td>9</td><td>DayaChand</td><td>Male</td><td>44</td><td>100000</td><td>Life</td><td>2012-09-08</td></tr> <tr> <td>10</td><td>Ajit</td><td>Male</td><td>33</td><td>12000</td><td>Quarterly</td><td>2015-06-26</td></tr> </tbody> </table> <ul style="list-style-type: none"> (i) To display Mname, Age, FeeGiven of those members whose fee is above 12,000. (ii) To display Mcode, Mname, Age of all female members of the Gym with age in descending order. (iii) To list names of members and their date of admission of those members who joined after 31st December, 2015. iv) To display the Mname, FeeGiven of all those members of the Gym whose age is less than 40 and are monthly type members of the Gym. (v) To display names of members who have ‘mit’ anywhere in their names. For example : Amit, Samit. (vi) To display types of memberships available. Duplicate values should not be displayed. 	Mcode	Mname	Gender	Age	FeeGiven	Type	DtAdmit	1	Amit	Male	35	6000	Monthly	2016-01-23	2	Rashmi	Female	25	8000	Monthly	2016-09-23	3	George	Male	42	24000	Yearly	2011-06-27	4	Fawad	Male	27	12000	Quarterly	2012-10-16	5	Samit	Male	54	6000	Monthly	2015-09-20	6	Lakshmi	Female	43	4500	Monthly	2016-01-15	7	Samita	Female	22	500	Guest	2017-01-23	8	Michael	Male	51	24000	Yearly	2013-07-18	9	DayaChand	Male	44	100000	Life	2012-09-08	10	Ajit	Male	33	12000	Quarterly	2015-06-26
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3	George	Male	42	24000	Yearly	2011-06-27																																																																								
4	Fawad	Male	27	12000	Quarterly	2012-10-16																																																																								
5	Samit	Male	54	6000	Monthly	2015-09-20																																																																								
6	Lakshmi	Female	43	4500	Monthly	2016-01-15																																																																								
7	Samita	Female	22	500	Guest	2017-01-23																																																																								
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9	DayaChand	Male	44	100000	Life	2012-09-08																																																																								
10	Ajit	Male	33	12000	Quarterly	2015-06-26																																																																								

34

Consider the following table:

Student

Admn	Name	Stream	Optional	Average
1001	Shrishti	Science	CS	90
1002	Ashi	Humanities	Maths	80
1003	Aditya	Commerce	IP	60
1004	Ritu Raj	Science	IP	65
1005	Sonali	Commerce	Maths	60
1006	Saumya	Science	IP	65
1007	Ashutosh	Science	IP	95
1008	Prashant	Commerce	P.ED	80
1009	Aman	Commerce	IP	70
1010	Rishabh	Humanities	P.ED	85

Write commands in SQL for (i) to (iv) and output for (v):

- i. To display the details of all those students who have IP as their optional subject.
- ii. To display name, stream and optional of all those students whose name starts with 'A'.
- iii. To give an increase of 3 in the average of all those students of humanities section who have Maths as their optional subject.
- iv. To display a name list of all those students who have average more than 75.

v. Select name from students where optional IN ('CS', 'IP');

My SQL Worksheet-7 (Single Row Functions)

1.	Write the output of the following SQL queries: a) SELECT ROUND(6.5675, 2); b) SELECT TRUNCATE(5.3456, 1); b) SELECT DAYOFMONTH('2009-08-25'); c) SELECT MID('Class 12', 2,3);												
2.	Write the output of the following SQL queries : (i) SELECT INSTR('UNICODE', 'CO'); (ii) SELECT RIGHT('Informatics',3);												
3.	State difference between date functions NOW() and SYSDATE() of MySql.												
	<table border="1" style="width: 100%; height: 150px; vertical-align: top;"> <tr><td style="width: 33%;"></td><td style="width: 33%;"></td><td style="width: 33%;"></td></tr> <tr><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td></tr> </table> <pre>mysql> select sysdate(),sleep(5),sysdate(),now(); +-----+-----+-----+-----+ sysdate() sleep(5) sysdate() now() +-----+-----+-----+-----+ 2018-01-26 13:38:28 0 2018-01-26 13:38:33 2018-01-26 13:38:28 +-----+-----+-----+-----+ 1 row in set (5.00 sec)</pre>												
4.	Name a function of MySql which is used to remove trailing and leading spaces from a string.												
5.	Consider the following table named 'SBOP' with details of account holders. Write output <p style="text-align: center;">Table : SBOP</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th>Accountno</th><th>Name</th><th>Balance</th><th>DateOfopen</th><th>Transaction</th></tr> </thead> <tbody> <tr> <td>SB-1</td><td>Mr. Anil</td><td>15000.00</td><td>2011-02-24</td><td>7</td></tr> </tbody> </table> <p style="text-align: right;">(i) SELECT ROUND(Balance,-3) FROM SBOP WHERE AccountNo="SB-5"; Ans. i)</p>	Accountno	Name	Balance	DateOfopen	Transaction	SB-1	Mr. Anil	15000.00	2011-02-24	7		
Accountno	Name	Balance	DateOfopen	Transaction									
SB-1	Mr. Anil	15000.00	2011-02-24	7									
6.	Write the output of the following SQL queries : (i) SELECT RIGHT('software', 2); (ii) SELECT INSTR('twelve', 't'); (iii) SELECT DAYOFMONTH('2014-03-01'); (iv) SELECT ROUND(76.987, 2);												
7.	Write the output of the following SQL queries: i. SELECT INSTR('INTERNATIONAL', 'NA'); ii. SELECT LENGTH(CONCAT('NETWORK', 'ING')); iii. SELECT ROUND(563.345, -2); iv. SELECT DAYOFYEAR('2014-01-30');												
8.	Pranay, who is an Indian, created a table named "Friends" to store his friend's detail. Table "Friends" is shown below. Write output for (i) and (ii).												

S_No	Name	Age	City	Country	Email_id
1	Alice	14	Washington	USA	alice@gmail.com
2	Charles	12	Copenhagen	Denmark	charles@yahoo.com
3	Angel	16	Chicago	USA	angel@gmail.com

	<table border="1"> <thead> <tr> <th>S_No</th><th>Name</th><th>Age</th><th>City</th><th>Country</th><th>Email_id</th></tr> </thead> <tbody> <tr><td>1</td><td>Alice</td><td>14</td><td>Washington</td><td>USA</td><td>alice@gmail.com</td></tr> <tr><td>2</td><td>Charles</td><td>12</td><td>Copenhagen</td><td>Denmark</td><td>charles@yahoo.com</td></tr> <tr><td>3</td><td>Angel</td><td>16</td><td>Chicago</td><td>USA</td><td>angel@gmail.com</td></tr> <tr><td>4</td><td>Jasmine</td><td>15</td><td>Sydney</td><td>Australia</td><td>jasmine@yahoo.com</td></tr> <tr><td>5</td><td>Raj</td><td>14</td><td>New Delhi</td><td>India</td><td>raj@gmail.com</td></tr> <tr><td>6</td><td>Jette</td><td>13</td><td>Nykobing</td><td>Denmark</td><td>jette@gmail.com</td></tr> <tr><td>7</td><td>Alexender</td><td>15</td><td>Melbourne</td><td>Australia</td><td>NULL</td></tr> <tr><td>8</td><td>Shashank</td><td>16</td><td>Banglore</td><td>India</td><td>NULL</td></tr> </tbody> </table>	S_No	Name	Age	City	Country	Email_id	1	Alice	14	Washington	USA	alice@gmail.com	2	Charles	12	Copenhagen	Denmark	charles@yahoo.com	3	Angel	16	Chicago	USA	angel@gmail.com	4	Jasmine	15	Sydney	Australia	jasmine@yahoo.com	5	Raj	14	New Delhi	India	raj@gmail.com	6	Jette	13	Nykobing	Denmark	jette@gmail.com	7	Alexender	15	Melbourne	Australia	NULL	8	Shashank	16	Banglore	India	NULL
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8	Shashank	16	Banglore	India	NULL																																																		
	<p>i. Select <code>ucase(concat(name, "***", city))</code> from friends where country like 'Denmark'; ii. Select <code>mid(name,1,4)</code> as "UID" from friends where country like 'USA';</p>																																																						
9.	<p>Write the output of the following SQL queries:</p> <p>i) <code>SELECT TRUNCATE(8.975,2);</code> ii) <code>SELECT MID('HONESTY WINS',3,4);</code> iii) <code>SELECT RIGHT(CONCAT('PRACTICES', 'INFORMATICS'),5);</code> iv) <code>SELECT DAYOFMONTH('2015-01-16');</code></p>																																																						
10.	<p>Write the output of the following SQL queries :</p> <p>(i) <code>SELECT MID('BoardExamination',2,4);</code> (ii) <code>SELECT ROUND(67.246,2);</code> (iii) <code>SELECT INSTR('INFORMATION FORM', 'FOR');</code> (iv) <code>SELECT DAYOFYEAR('2015-01-10');</code></p>																																																						
11.	<p>Write output.</p> <p style="text-align: center;">Table : Store</p> <table border="1"> <thead> <tr> <th>StoreID</th><th>Name</th><th>Location</th><th>City</th><th>NoOfEmploye</th><th>DateOpen</th><th>SalesAmou</th></tr> </thead> <tbody> <tr><td>S101</td><td>Planetfashi</td><td>KarolBag</td><td>Delhi</td><td>7</td><td>2015-10-</td><td>300000</td></tr> <tr><td>S102</td><td>Trends</td><td>Nehru Nagar</td><td>Mumb ai</td><td>1</td><td>2015-08-09</td><td>400000</td></tr> <tr><td>S103</td><td>Vogue</td><td>Vikas Vihar</td><td>Delhi</td><td>10</td><td>2015-06-27</td><td>200000</td></tr> <tr><td>S104</td><td>Superfashion</td><td>Defence Colony</td><td>Delhi</td><td>8</td><td>2015-02-18</td><td>450000</td></tr> <tr><td>S105</td><td>Rage</td><td>Bandra</td><td>Mumb</td><td>5</td><td>2015-09-</td><td>600000</td></tr> </tbody> </table> <p>(i) <code>SELECT Name, length (name), left (name, 3) FROM Store where NoOfEmployees<3;</code></p>	StoreID	Name	Location	City	NoOfEmploye	DateOpen	SalesAmou	S101	Planetfashi	KarolBag	Delhi	7	2015-10-	300000	S102	Trends	Nehru Nagar	Mumb ai	1	2015-08-09	400000	S103	Vogue	Vikas Vihar	Delhi	10	2015-06-27	200000	S104	Superfashion	Defence Colony	Delhi	8	2015-02-18	450000	S105	Rage	Bandra	Mumb	5	2015-09-	600000												
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	<p>i) Empty Set</p>																																																						
12.	<p>Write the output of the following SQL queries:</p> <p><code>SELECT POW(INSTR('My_Database', '_'),2);</code></p>																																																						
13.	<p>Consider the table given below :</p> <p>Write output.</p> <p style="text-align: center;">(Table : Salesperson)</p> <table border="1"> <thead> <tr> <th>SID</th><th>Name</th><th>Phone</th><th>DOB</th><th>Salary</th><th>Area</th></tr> </thead> <tbody> <tr><td>S101</td><td>Amit Kumar</td><td>98101789654</td><td>1967-01-23</td><td>67000.00</td><td>North</td></tr> <tr><td>S102</td><td>Deepika Sharma</td><td>99104567834</td><td>1992-09-23</td><td>32000.00</td><td>South</td></tr> <tr><td>S103</td><td>Vinay Srivastav</td><td>98101546789</td><td>1991-06-27</td><td>35000.00</td><td>North</td></tr> <tr><td>S104</td><td>Kumar Mehta</td><td>88675345789</td><td>1967-10-16</td><td>40000.00</td><td>East</td></tr> <tr><td>S105</td><td>Rashmi Kumar</td><td>98101567434</td><td>1972-09-20</td><td>50000.00</td><td>South</td></tr> </tbody> </table> <p>(i) <code>SELECT Name, LENGTH(Name) FROM Salesperson;</code></p>	SID	Name	Phone	DOB	Salary	Area	S101	Amit Kumar	98101789654	1967-01-23	67000.00	North	S102	Deepika Sharma	99104567834	1992-09-23	32000.00	South	S103	Vinay Srivastav	98101546789	1991-06-27	35000.00	North	S104	Kumar Mehta	88675345789	1967-10-16	40000.00	East	S105	Rashmi Kumar	98101567434	1972-09-20	50000.00	South																		
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14.	<p>Identify Single Row functions of MySQL amongst the following :</p> <p><code>TRIM()</code>, <code>MAX()</code>, <code>COUNT(*)</code>, <code>ROUND()</code></p>																																																						
15.	<p>Consider the Table "Gym" and write output</p> <p style="text-align: center;">Table : Gym</p> <table border="1"> <thead> <tr> <th>Mcode</th><th>Mname</th><th>Gender</th><th>Age</th><th>FeeGiven</th><th>Type</th><th>DtAdmit</th></tr> </thead> <tbody> <tr><td>1</td><td>Amit</td><td>Male</td><td>35</td><td>6000</td><td>Monthly</td><td>2016-01-23</td></tr> <tr><td>2</td><td>Rashmi</td><td>Female</td><td>25</td><td>8000</td><td>Monthly</td><td>2016-09-23</td></tr> <tr><td>3</td><td>George</td><td>Male</td><td>42</td><td>24000</td><td>Yearly</td><td>2011-06-27</td></tr> <tr><td>4</td><td>Fawad</td><td>Male</td><td>27</td><td>12000</td><td>Quarterly</td><td>2012-10-16</td></tr> </tbody> </table> <p>(i) <code>SELECT MID(Mname,1,2)from Gym;</code></p> <p style="text-align: center;">Ans.</p>	Mcode	Mname	Gender	Age	FeeGiven	Type	DtAdmit	1	Amit	Male	35	6000	Monthly	2016-01-23	2	Rashmi	Female	25	8000	Monthly	2016-09-23	3	George	Male	42	24000	Yearly	2011-06-27	4	Fawad	Male	27	12000	Quarterly	2012-10-16																			
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9	DayaChand	Male	44	100000	Life	2012-09-08
10	Ajit	Male	33	12000	Quarterly	2015-06-26

File_No	Cust_Name	PhoneNo	Loan_Amt	Bank	Cheque_Dt
619095	Ms. Roshni	9899965430	809876	HBDC Ltd.	2017-06-15
234252	Mr. Rajesh	8654327890	745738	ICUCI Ltd.	2017-07-22
543613	Mrs. Sapna	8883546354	NULL	NBI Ltd.S	2017-07-24
435467	Mr. Navneet	9764747474	647484	ICUCI Ltd.	2017-08-13
263427	Ms. Puja	8746454742	546373	HBDC Ltd.	2017-08-30

16. Observe the given table named "Loan" carefully and predict the output of the following queries:
- SELECT concat(left(file_no,2), right(cust_name,2)) AS "ID" from loan where Bank='ICUCI Ltd.';
 - select round(loan_amt-loan_amt*10/100) As "Discounted Payment" from loan where loan_amt>700000;

My SQL Worksheet-8 (Aggregate Functions)

1. Consider the table TEACHER given below. Write commands in SQL for (1) and output for (2) to (5)

ID	Name	Department	Hiredate	Category	Gender	Salary
1	Tanya Nanda	SocialStudies	1994-03-17	TGT	F	25000
2	Saurabh Sharma	Art	1990-02-12	PRT	M	20000
3	Nandita Arora	English	1980-05-16	PGT	F	30000
4	James Jacob	English	1989-10-16	TGT	M	25000
5	Jaspreet Kaur	Hindi	1990-08-01	PRT	F	22000
6	Disha Sehgal	Math	1980-03-17	PRT	F	21000
7	Siddharth Kapoor	Science	1994-09-02	TGT	M	27000
8	Sonali Mukherjee	Math	1980-11-17	TGT	F	24500

- To count the number of teachers in English department.
- SELECT MAX(Hiredate) FROM Teacher;
- SELECT DISTINCT(category) FROM teacher;
- SELECT COUNT(*) FROM TEACHER WHERE Category = "PGT"
- SELECT Gender, AVG(Salary) FROM TEACHER group by Gender;

2. The Item_No and Cost column of a table "ITEMS" are given below:

	<table border="1"> <thead> <tr> <th>ITEM_NO</th><th>COST</th></tr> </thead> <tbody> <tr><td>101</td><td>5000</td></tr> <tr><td>102</td><td>NULL</td></tr> <tr><td>103</td><td>4000</td></tr> <tr><td>104</td><td>6000</td></tr> <tr><td>105</td><td>NULL</td></tr> </tbody> </table>	ITEM_NO	COST	101	5000	102	NULL	103	4000	104	6000	105	NULL	<p>Based on this information, find the output of the following queries:</p> <ol style="list-style-type: none"> SELECT AVG(COST) FROM ITEMS; SELECT COST +100 FROM ITEMS WHERE ITEM_NO > 103; 																														
ITEM_NO	COST																																											
101	5000																																											
102	NULL																																											
103	4000																																											
104	6000																																											
105	NULL																																											
3.	"PrincipalName" is a column in a table "Schools". The SQL queries SELECT count(*) FROM Schools; and SELECT count(Principal) FROM schools; Give the result 28 and 27 respectively. What may be the possible reason for this? How many records are present in the table-27 or 28?																																											
4.	Consider the table Projects given below. Write commands in SQL for i) and output for ii) to iii) PROJECTS	<table border="1"> <thead> <tr> <th>ID</th><th>ProjName</th><th>ProjSize</th><th>StartDate</th><th>EndDate</th><th>Cost</th></tr> </thead> <tbody> <tr><td>1</td><td>Payroll-MMS</td><td>Medium</td><td>2006-03-17</td><td>2006-09-16</td><td>60000</td></tr> <tr><td>2</td><td>Payroll-ITC</td><td>Large</td><td>2008-02-12</td><td>2008-01-11</td><td>500000</td></tr> <tr><td>3</td><td>IDMgmt-LITL</td><td>Large</td><td>2008-06-13</td><td>2009-05-21</td><td>300000</td></tr> <tr><td>4</td><td>Recruit-LITL</td><td>Medium</td><td>2008-03-18</td><td>2008-06-01</td><td>50000</td></tr> <tr><td>5</td><td>IDMgmt-MTC</td><td>Small</td><td>2007-01-15</td><td>2007-01-29</td><td>20000</td></tr> <tr><td>6</td><td>Recruit-ITC</td><td>Medium</td><td>2007-03-01</td><td>2007-06-28</td><td>50000</td></tr> </tbody> </table> <p>i. To count the number of projects of cost less than 100000. ii. SELECT SUM(Cost) FROM projects; iii. SELECT ProjSize, COUNT(*) FROM Projects GROUP BY ProjSize;</p>	ID	ProjName	ProjSize	StartDate	EndDate	Cost	1	Payroll-MMS	Medium	2006-03-17	2006-09-16	60000	2	Payroll-ITC	Large	2008-02-12	2008-01-11	500000	3	IDMgmt-LITL	Large	2008-06-13	2009-05-21	300000	4	Recruit-LITL	Medium	2008-03-18	2008-06-01	50000	5	IDMgmt-MTC	Small	2007-01-15	2007-01-29	20000	6	Recruit-ITC	Medium	2007-03-01	2007-06-28	50000
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5	IDMgmt-MTC	Small	2007-01-15	2007-01-29	20000																																							
6	Recruit-ITC	Medium	2007-03-01	2007-06-28	50000																																							
5.	Consider the table RESULT given below. Write output Table : Result	<table border="1"> <thead> <tr> <th>No</th><th>Name</th><th>Stipend</th><th>Subject</th><th>Average</th><th>Division</th></tr> </thead> <tbody> <tr><td>1</td><td>Sharon</td><td>400</td><td>English</td><td>38</td><td>THIRD</td></tr> <tr><td>2</td><td>Amal</td><td>680</td><td>Mathematics</td><td>72</td><td>FIRST</td></tr> <tr><td>3</td><td>Vedant</td><td>500</td><td>Accounts</td><td>67</td><td>FIRST</td></tr> <tr><td>4</td><td>Shakeer</td><td>200</td><td>Informatics</td><td>55</td><td>SECOND</td></tr> <tr><td>5</td><td>Anandha</td><td>400</td><td>History</td><td>85</td><td>FIRST</td></tr> <tr><td>6</td><td>Upasna</td><td>550</td><td>Geography</td><td>45</td><td>THIRD</td></tr> </tbody> </table> <p>(i) SELECT AVG(Stipend) FROM EXAM WHERE DIVISION= "THIRD"; (ii) SELECT COUNT(DISTINCT Subject) FROM EXAM; (iii) SELECT MIN(Average) FROM EXAM WHERE Subject= "English";</p>	No	Name	Stipend	Subject	Average	Division	1	Sharon	400	English	38	THIRD	2	Amal	680	Mathematics	72	FIRST	3	Vedant	500	Accounts	67	FIRST	4	Shakeer	200	Informatics	55	SECOND	5	Anandha	400	History	85	FIRST	6	Upasna	550	Geography	45	THIRD
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6	Upasna	550	Geography	45	THIRD																																							
6.	What is the purpose of ORDER BY clause in MySQL ? How is it different from GROUP BY clause?																																											
7.	Consider the Table SHOPPE given below. Write command in MySQL for (i) and output for (ii) to (iii). (i) To count distinct Company from the table.																																											

Table SHOPPE :

Code	Item	Company	Qty	City	Price
102	Biscuit	Hide & Seek	100	Delhi	10.00
103	Jam	Kissan	110	Kolkata	25.00

(ii) Select Count(DISTINCT (City)) from Shoppe;
 (iii) Select MIN (Qty) from Shoppe where City="Mumbai";

8. Consider the table 'PERSONS' given below. Write commands in SQL for (i) to (iv) and write output for (i) to (iii).

Table : PERSONS						
PID	Surname	Firstname	Gender	City	PinCode	BasicSalary
1	Sharma	Geeta	F	Udhamwara	182141	50000
2	Singh	Surinder	M	Kupwara Nagar	193222	75000
3	Jacob	Peter	M	Bhawani	185155	45000
4	Alvis	Thomas	M	Ahmed Nagar	380025	50000
5	Mohan	Garima	M	Nagar Coolangatta	390026	33000

- (i) SELECT SUM(BasicSalary) FROM Persons Where Gender='F';
 (ii) SELECT Gender,MIN(BasicSalary) FROM Persons GROUP BY gender;
 (iii) SELECT Gender,Count(*) FROM Persons GROUP BY Gender;

i	Azmi	Simi	F	New Delhi	110021	40000
ii	Kaur	Manpreet	F	Udhamwara	182141	42000

(i) Display the Surnames, FirstNames and Cities of people residing in Udhamwara city.
 (ii) Display the Person Ids (PID), cities and PinCodes of persons in descending order of PinCodes.
 (iii) Display the First names and Cities of all the females.

9. There is a column HOBBY in a Table CONTACTS. The following two statements are giving different outputs. What may be the possible reason ?
 SELECT COUNT(*) FROM CONTACTS;
 SELECT COUNT(HOBBY)FROM CONTACTS;

.

10. Consider the following table named "GYM" with details about fitness items being sold in the store. Write output
- (i) SELECT COUNT (DISTINCT (BRANDNAME)) FROM GYM;
 (ii) SELECT MAX (PRICE) FROM GYM;

Table : SBOP				
Accountno	Name	Balance	DateOfopen	Transaction
SB-1	Mr. Anil	15000.00	2011-02-24	7
SB-2	Mr. Amit	23567.89		8

Consider the following table named 'SBOP' with details of account holders. Write output.

- (i) SELECT COUNT(*) FROM SBOP;

Employee_ID	NAME	Commission	Given 'Employee' table as follows :
101	Sabhyata Sharma	NULL	What values will the following statements return ?
102	Divya Arora	8900	SELECT COUNT(*) FROM Employee;
103	Faizal Zaidi	NULL	SELECT COUNT(Commission) FROM Employee;

Table : FLIGHT				
FLCODE	START	DESTINATION	NO_STOPS	NO_FLIGHTS
IC101	DELHI	AGARTALA	1	5
IC102	MUMBAI	SIKKIM	1	3
IC103	DELHI	JAIPUR	0	7
IC105	KANPUR	CHEENNAI	2	2
IC107	MUMBAI	KANPUR	0	4
IC431	INDORE	CHEENNAI	3	2
IC121	DELHI	AHMEDABAD	2	6

Consider the table FLIGHT given below. Write output.

- (i) SELECT MAX(NO_FLIGHTS) FROM FLIGHT;
 (ii) SELECT START, COUNT(*) FROM FLIGHT GROUP BY Start;

14.	<p>What will be the output of the following queries on the basis of Employee table:</p> <table border="1"> <thead> <tr> <th>Empld</th><th>EName</th><th>Salary</th></tr> </thead> <tbody> <tr> <td>A001</td><td>Bob</td><td>5600</td></tr> <tr> <td>A002</td><td>John</td><td>NULL</td></tr> </tbody> </table> <p>(i) Select avg(Salary) from Employee; (ii) Select Salary+100 from Employee where Empld='A002';</p> <table border="1"> <thead> <tr> <th>Empld</th><th>EName</th><th>Salary</th></tr> </thead> <tbody> <tr> <td>A003</td><td>Tom</td><td>5000</td></tr> </tbody> </table>	Empld	EName	Salary	A001	Bob	5600	A002	John	NULL	Empld	EName	Salary	A003	Tom	5000																				
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15.	<p>Table : GARMENT</p> <p>Consider the following table named “GARMENT”. Write output</p> <table border="1"> <thead> <tr> <th>GCODE</th><th>GNAME</th><th>SIZE</th><th>COLOUR</th><th>PRICE</th></tr> </thead> <tbody> <tr> <td>111</td><td>TShirt</td><td>XL</td><td>Red</td><td>1400.00</td></tr> <tr> <td>112</td><td>Jeans</td><td>L</td><td>Blue</td><td>1600.00</td></tr> <tr> <td>113</td><td>Skirt</td><td>M</td><td>Black</td><td>1100.00</td></tr> <tr> <td>114</td><td>Ladies Jacket</td><td>XL</td><td>Blue</td><td>4000.00</td></tr> <tr> <td>115</td><td>Trousers</td><td>L</td><td>Brown</td><td>1500.00</td></tr> <tr> <td>116</td><td>Ladies Top</td><td>L</td><td>Pink</td><td>1200.00</td></tr> </tbody> </table> <p>(i) SELECT COUNT(DISTINCT (SI(E))) FROM GARMENT; (ii) SELECT AVG(PRICE) FROM GARMENT;</p>	GCODE	GNAME	SIZE	COLOUR	PRICE	111	TShirt	XL	Red	1400.00	112	Jeans	L	Blue	1600.00	113	Skirt	M	Black	1100.00	114	Ladies Jacket	XL	Blue	4000.00	115	Trousers	L	Brown	1500.00	116	Ladies Top	L	Pink	1200.00
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16.	<p>Consider the table ‘Teacher’ given below. What will be the output of the following queries on the basis of the above table:</p> <p>(i)Select count(Department) from Teacher; (ii)Select count(*) from Teacher;</p>																																			
17.	<p>(i) Name two Aggregate (Group) functions of SQL. (ii) Consider the table :</p> <table border="1"> <thead> <tr> <th colspan="2">Table : Company</th> </tr> <tr> <th>SID</th><th>SALES</th></tr> </thead> <tbody> <tr> <td>S101</td><td>20000</td></tr> <tr> <td>S103</td><td>NULL</td></tr> <tr> <td>S104</td><td>10000</td></tr> <tr> <td>S105</td><td>15000</td></tr> </tbody> </table> <p>What output will be displayed by the following SQL statement ? SELECT AVG(SALES) FROM Company;</p>	Table : Company		SID	SALES	S101	20000	S103	NULL	S104	10000	S105	15000																							
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18.	<p>Consider the table ‘Hotel’ given below :</p> <table border="1"> <thead> <tr> <th colspan="3">Table : Hotel</th> </tr> <tr> <th>EMPID</th><th>Category</th><th>Salary</th></tr> </thead> <tbody> <tr> <td>E101</td><td>MANAGER</td><td>60000</td></tr> <tr> <td>E102</td><td>EXECUTIVE</td><td>65000</td></tr> <tr> <td>E103</td><td>CLERK</td><td>40000</td></tr> <tr> <td>E104</td><td>MANAGER</td><td>62000</td></tr> <tr> <td>E105</td><td>EXECUTIVE</td><td>50000</td></tr> <tr> <td>E106</td><td>CLERK</td><td>35000</td></tr> </tbody> </table> <p>Mr. Vinay wanted to display average salary of each Category. He entered the following SQL statement. Identify error(s) and Rewrite the correct SQL statement. SELECT Category, Salary FROM Hotel GROUP BY Category;</p>	Table : Hotel			EMPID	Category	Salary	E101	MANAGER	60000	E102	EXECUTIVE	65000	E103	CLERK	40000	E104	MANAGER	62000	E105	EXECUTIVE	50000	E106	CLERK	35000											
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19.	<p>Explain why the following queries give different outputs on execution:</p> <p>i. SELECT COUNT(ENAME) FROM EMP; Output: 5</p> <p>ii. SELECT Count(*) FROM EMP; Output: 8</p>																																			

20.	<p>Kunal has entered the following SQL command on Table ‘STUDENT’ that has TotalMarks as one of the columns.</p> <p>SELECT COUNT (*) FROM STUDENT; The output displayed is 20.</p> <p>Then, Kunal enters the following command : SELECT COUNT (*) FROM STUDENT WHERE TotalMarks <100; The output displayed is 15.</p> <p>Then, Kunal enters the following command : SELECT COUNT (*) FROM STUDENT WHERE TotalMarks >= 100; He predicts the output of the above query as 5. Do you agree with Kunal ? Give reason for your answer.</p>																																				
21.	<p>Consider the table given below : Write command for (i) and output for (ii)</p> <p style="text-align: center;">(Table : Salesperson)</p> <table border="1" data-bbox="192 691 759 945"> <thead> <tr> <th>SID</th><th>Name</th><th>Phone</th><th>DOB</th><th>Salary</th><th>Area</th></tr> </thead> <tbody> <tr> <td>S101</td><td>Amit Kumar</td><td>98101789654</td><td>1967-01-23</td><td>67000.00</td><td>North</td></tr> <tr> <td>S102</td><td>Deepika Sharma</td><td>99104567834</td><td>1992-09-23</td><td>32000.00</td><td>South</td></tr> <tr> <td>S103</td><td>Vinay Srivastav</td><td>98101546789</td><td>1991-06-27</td><td>35000.00</td><td>North</td></tr> <tr> <td>S104</td><td>Kumar Mehta</td><td>88675345789</td><td>1967-10-16</td><td>40000.00</td><td>East</td></tr> <tr> <td>S105</td><td>Rashmi Kumar</td><td>98101567434</td><td>1972-09-20</td><td>50000.00</td><td>South</td></tr> </tbody> </table> <p style="text-align: right;">(i) To display Area along with number of Salespersons working in that area. (ii) SELECT Area, COUNT (*) FROM Salesperson GROUP BY Area HAVING COUNT (*) > 1;</p>	SID	Name	Phone	DOB	Salary	Area	S101	Amit Kumar	98101789654	1967-01-23	67000.00	North	S102	Deepika Sharma	99104567834	1992-09-23	32000.00	South	S103	Vinay Srivastav	98101546789	1991-06-27	35000.00	North	S104	Kumar Mehta	88675345789	1967-10-16	40000.00	East	S105	Rashmi Kumar	98101567434	1972-09-20	50000.00	South
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My SQL Worksheet9

(Joins)

1.	<p>In a database there are two tables 'Customer' and 'Bill' as shown below:</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="3" style="text-align: center;">Customer</th> <th colspan="3" style="text-align: center;">Bill</th> </tr> <tr> <th>CustomerID</th><th>CustomerName</th><th>CustAddress</th><th>BillNo</th><th>CustID</th><th>Bill_Amt</th></tr> </thead> <tbody> <tr> <td>1</td><td>Akhilesh Narang</td><td>C4,Janak Puri,Delhi</td><td>1</td><td>2</td><td>12000</td></tr> <tr> <td>2</td><td>Purnima Williams</td><td>B1, Ashok Vihar, Delhi</td><td>2</td><td>1</td><td>15000</td></tr> <tr> <td>3</td><td>Sumedha Madaan</td><td>33, South Ext, Delhi</td><td>3</td><td>2</td><td>13000</td></tr> <tr> <td></td><td></td><td></td><td>4</td><td>3</td><td>13000</td></tr> <tr> <td></td><td></td><td></td><td>5</td><td>2</td><td>14000</td></tr> </tbody> </table> <p>(i) How many rows and how many columns will be there in the Cartesian product of these two tables? (ii) Which column in the 'Bill' table is the foreign key?</p>	Customer			Bill			CustomerID	CustomerName	CustAddress	BillNo	CustID	Bill_Amt	1	Akhilesh Narang	C4,Janak Puri,Delhi	1	2	12000	2	Purnima Williams	B1, Ashok Vihar, Delhi	2	1	15000	3	Sumedha Madaan	33, South Ext, Delhi	3	2	13000				4	3	13000				5	2	14000							
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2.	<p>Consider the tables HANDSETS and CUSTOMER given below:</p> <table border="1" style="width: 50%; border-collapse: collapse;"> <thead> <tr> <th colspan="4" style="text-align: center;">Handsets</th> <th colspan="3" style="text-align: center;">Customer</th> </tr> <tr> <th>SetCode</th><th>SetName</th><th>TouchScreen</th><th>PhoneCost</th><th>CustNo</th><th>SetNo</th><th>CustAddress</th></tr> </thead> <tbody> <tr> <td>N1</td><td>Nokia 2G</td><td>N</td><td>5000</td><td>1</td><td>N2</td><td>Delhi</td></tr> <tr> <td>N2</td><td>Nokia 3G</td><td>Y</td><td>8000</td><td>2</td><td>B1</td><td>Mumbai</td></tr> <tr> <td>B1</td><td>BlackBerry</td><td>N</td><td>14000</td><td>3</td><td>N2</td><td>Mumbai</td></tr> <tr> <td></td><td></td><td></td><td></td><td>4</td><td>N1</td><td>Kolkata</td></tr> <tr> <td></td><td></td><td></td><td></td><td>5</td><td>B1</td><td>Delhi</td></tr> </tbody> </table> <p>With reference to these tables, Write commands in SQL for (i) and (ii) and output for (iii) below:</p> <p>(i) Display the CustNo, CustAddress and corresponding SetName for each customer. (ii) Display the Customer Details for each customer who uses a Nokia handset. (iii) select SetNo, SetName from Handsets, customer where SetNo = SetCode and CustAddress = 'Delhi';</p>	Handsets				Customer			SetCode	SetName	TouchScreen	PhoneCost	CustNo	SetNo	CustAddress	N1	Nokia 2G	N	5000	1	N2	Delhi	N2	Nokia 3G	Y	8000	2	B1	Mumbai	B1	BlackBerry	N	14000	3	N2	Mumbai					4	N1	Kolkata					5	B1	Delhi
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3.	<p>In a database there are two tables "Company" and "Model" as shown below:</p> <table border="1" style="width: 50%; border-collapse: collapse;"> <thead> <tr> <th colspan="4" style="text-align: center;">Company</th> <th colspan="3" style="text-align: center;">Model</th> </tr> <tr> <th>ComplD</th><th>CompName</th><th>CompHO</th><th>ContPerson</th><th>ModelID</th><th>ComplD</th><th>ModelCost</th></tr> </thead> <tbody> <tr> <td>1</td><td>Titan</td><td>Okhla</td><td>C.B.Ajit</td><td>T020</td><td>1</td><td>2000</td></tr> <tr> <td>2</td><td>Maxima</td><td>Shahdara</td><td>V.P.Kohli</td><td>M032</td><td>4</td><td>2500</td></tr> <tr> <td>3</td><td>Ajanta</td><td>Najafgarh</td><td>R. Mehta</td><td>M059</td><td>2</td><td>7000</td></tr> <tr> <td></td><td></td><td></td><td></td><td>A167</td><td>3</td><td>800</td></tr> <tr> <td></td><td></td><td></td><td></td><td>T024</td><td>1</td><td>1200</td></tr> </tbody> </table> <p>(i) Identify the foreign key column in the table Model. (ii) Check every value in ComplD column of both the tables. Do you find any discrepancy?</p>	Company				Model			ComplD	CompName	CompHO	ContPerson	ModelID	ComplD	ModelCost	1	Titan	Okhla	C.B.Ajit	T020	1	2000	2	Maxima	Shahdara	V.P.Kohli	M032	4	2500	3	Ajanta	Najafgarh	R. Mehta	M059	2	7000					A167	3	800					T024	1	1200
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5.	<p>In a database there are two tables "Product" and "Client" as shown below :</p> <p>Table : PRODUCT</p> <table border="1"> <thead> <tr> <th>P_ID</th> <th>ProductName</th> <th>Manufacture</th> <th>Price</th> </tr> </thead> <tbody> <tr> <td>P001</td> <td>Moisturiser</td> <td>XYZ</td> <td>40</td> </tr> <tr> <td>P002</td> <td>Sanitizer</td> <td>LAC</td> <td>35</td> </tr> <tr> <td>P003</td> <td>Bath Soap</td> <td>COP</td> <td>25</td> </tr> <tr> <td>P004</td> <td>Shampoo</td> <td>TAP</td> <td>95</td> </tr> <tr> <td>P005</td> <td>Lens Solution</td> <td>COP</td> <td>350</td> </tr> </tbody> </table> <p>Table : Client</p> <table border="1"> <thead> <tr> <th>C_ID</th> <th>ClientName</th> <th>City</th> <th>P_ID</th> </tr> </thead> <tbody> <tr> <td>01</td> <td>Dreamz Disney</td> <td>New Delhi</td> <td>P002</td> </tr> <tr> <td>05</td> <td>Life Line Inc</td> <td>Mumbai</td> <td>P005</td> </tr> <tr> <td>12</td> <td>98.4</td> <td>New Delhi</td> <td>P001</td> </tr> <tr> <td>15</td> <td>Appolo</td> <td>Banglore</td> <td>P003</td> </tr> </tbody> </table> <p>Write the commands in SQL queries for the following :</p> <p>(i) To display the details of Product whose Price is in the range of 40 and 120 (Both values included)</p> <p>(ii) To display the ClientName, City from table Client and ProductName and Price from table Product, with their corresponding matching P ID.</p> <p>(iii) To increase the Price of all the Products by 20.</p>	P_ID	ProductName	Manufacture	Price	P001	Moisturiser	XYZ	40	P002	Sanitizer	LAC	35	P003	Bath Soap	COP	25	P004	Shampoo	TAP	95	P005	Lens Solution	COP	350	C_ID	ClientName	City	P_ID	01	Dreamz Disney	New Delhi	P002	05	Life Line Inc	Mumbai	P005	12	98.4	New Delhi	P001	15	Appolo	Banglore	P003					
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P005	Lens Solution	COP	350																																															
C_ID	ClientName	City	P_ID																																															
01	Dreamz Disney	New Delhi	P002																																															
05	Life Line Inc	Mumbai	P005																																															
12	98.4	New Delhi	P001																																															
15	Appolo	Banglore	P003																																															
6.	<p>In a Database School there are two tables Member and Division as show below.</p> <p>Table : Member</p> <table border="1"> <thead> <tr> <th>Empld</th> <th>Name</th> <th>Pay</th> <th>Divno</th> </tr> </thead> <tbody> <tr> <td>1001</td> <td>Shankhya</td> <td>34000</td> <td>10</td> </tr> <tr> <td>1003</td> <td>Ridhima</td> <td>32000</td> <td>50</td> </tr> <tr> <td>1002</td> <td>Sunish</td> <td>45000</td> <td>20</td> </tr> </tbody> </table> <p>Table : Division</p> <table border="1"> <thead> <tr> <th>Divno</th> <th>Divname</th> <th>Location</th> </tr> </thead> <tbody> <tr> <td>10</td> <td>Media</td> <td>TF02</td> </tr> <tr> <td>20</td> <td>Dance</td> <td>FF02</td> </tr> <tr> <td>30</td> <td>Production</td> <td>SF01</td> </tr> </tbody> </table> <p>(i) Identify the foreign key in the table Member.</p> <p>(ii) What output, you will get, when an equi-join query is executed to get the NAME from Member Table and corresponding DivName from Division table ?</p>	Empld	Name	Pay	Divno	1001	Shankhya	34000	10	1003	Ridhima	32000	50	1002	Sunish	45000	20	Divno	Divname	Location	10	Media	TF02	20	Dance	FF02	30	Production	SF01																					
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7.	<p>In a Database there are two tables :</p>																																																	

Table ITEM:

ICode	Iname	Price
101	Television	75000
202	Computer	42000
303	Refrigerator	90000
404	Washing Machine	27000

Table BRAND :

ICode	Brand
101	Sony
202	HP
303	LG
404	IFB

Write MySQL queries for the following :

- (i) To display ICode, IName and corresponding Brand of those Items, whose Price is between 20000 and 45000 (both values inclusive).
- (ii) To display ICode, Price and BName, of the item which has IName as "Television".
- (iii) To increase the price of all the Items by 15%.

8. In a Database there are two tables :

Table MAGA(INE):

Date_Published	Date		
o In a database there are two tables 'MAGAZINE' and 'MAGTYPE'			
as shown below :			
Table : MAGAZINE			
Mag_Code	Mag_Title	Number_of_Pages	Mag_Category
1	Good Deeds	60	12
2	Health is Wealth	45	15
3	Indian Cooking	90	20
4	Karma	50	12

MAGTYPE	
Mag_Category	Type
1	Bollywood
12	Spiritual
15	Fitness
20	Cookery

- (i) Which column can be set as the PRIMARY KEY in the MAGA(INE table?
- (ii) Which column in the 'MAGA(INE' table is the foreign key?
- (iii) How many rows and columns will be there in the Cartesian product of the above 2 tables ?
- (iv) Write command in SQL to Display the Mag_code, Mag_Title and corresponding types for all the Magazines.
- (v) Write the output :

(vi) Select Mag_Code, Mag_Title, Number_of_Pages, Type From MAGA(INE,MAGTYPE Where Magazine.Mag_Category=Magtype.Mag_Category and Type='Spiritual';

9. In a Database Kamataka_Sangam there are two tables with the instances given below :
Table : STUDENTS

ADMNO	NAME	CLASS	SEC	RN	ADDRESS	PHONE
1211	Meena	12	D	4	A-26	2345678
1212	Vani	10	D	1	B-25	5456789
1213	Meena	12	A	1		
1214	Karish	10	B	3	AB-234	4567890
1215	Suraj	11	C	2	ZW12	4345677

Table : SPORTS

ADMNO	GAME	COACHNAME	GRADE
1215	Cricket	Mr.Rai	A
1213	Vollyball	Ms. Chadha	B
1211	Vollyball	Mr. Govardhan	A
1212	Basket Ball	Mr. Tiwani	B

Write SQL queries for the following :

- (i) To count how many addresses are not having NULL values in the address column of students

table.

- (ii) To display Name, Class from STUDENT table and the corresponding Grade from SPORTS table.
 (iii) To display Name of the student and their corresponding Coachnames from STUDENTS and SPORTS tables.

10. In a Database Multiplexes, there are two tables with the following data. Write MySQL queries for (i) to (iii), which are based on TicketDetails and AgentDetails :

Table : TicketDetails

Tcode	Name	Tickets	A_code
S001	Meena	7	A01
S002	Vani	5	A02
S003	Meena	9	A01
S004	Karish	2	A03
S005	Suraj	1	A02

Table : AgentDetails

Acode	AName
A01	Mr.Robin
A02	Mr.Ayush
A03	Mr.Trilok
A04	Mr.John

- (i) To display Tcode, Name and Aname of all the records where the number of tickets sold is more than 5.
 (ii) To display total number of tickets booked by agent “Mr. Ayush”
 (iii) To display Acode, Aname and corresponding Tcode where Aname ends with “k”.
 (iv) With reference to “TicketDetails” table, which column is the primary key ? Which column is the foreign key? Give reason(s)

11. In a database there are two tables ‘CD’ and ‘TYPE’ as shown below :

Table : CD

CODE	TITLE	DURATION	SINGER	CATEGORY
101	Sufi Songs	50 min	Zakir Faiz	12
102	Eureka	45 min	Shyama Mukherjee	12
103	Nagmey	23 min	Sonvi Kumar	77
104	Dosti	35 min	Bobby	1

Table : TYPE

CATEGORY	DESCRIPTION
1	Jazz
12	Classical
40	Country Side
78	Pop

- (i) Name the Primary key in “CD” table.
 (ii) Name the foreign key in “CD” table.
 (iii) Write the Cardinality and Degree of “TYPE” table.
 (iv) Check every value in CATEGORY column of both the tables. Do you find any discrepancy ? State the discrepancy.

i) **Table : GARMENT**

GCODE	GNAME	SIZE	COLOUR	PRICE
111	TShirt	XL	Red	1400.00
112	Jeans	L	Blue	1600.00
113	Skirt	M	Black	1100.00
114	Ladies Jacket	XL	Blue	4000.00
115	Trousers	L	Brown	1500.00

13.	<p>Consider the tables ‘Flights’ & ‘Fares’ given below:</p> <p>Flights</p> <table border="1"> <thead> <tr> <th>FNO</th><th>SOURCE</th><th>DEST</th><th>NO_OF_FL</th><th>NO_OF_STO P</th></tr> </thead> <tbody> <tr> <td>IC301</td><td>MUMBAI</td><td>BANGALORE</td><td>3</td><td>2</td></tr> <tr> <td>IC799</td><td>BANGALORE</td><td>KOLKATA</td><td>8</td><td>3</td></tr> <tr> <td>MC101</td><td>DELHI</td><td>VARANASI</td><td>6</td><td>0</td></tr> <tr> <td>IC302</td><td>MUMBAI</td><td>KOCHI</td><td>1</td><td>4</td></tr> <tr> <td>AM812</td><td>LUCKNOW</td><td>DELHI</td><td>4</td><td>0</td></tr> <tr> <td>MU499</td><td>DELHI</td><td>CHENNAI</td><td>3</td><td>3</td></tr> </tbody> </table> <p>Fares</p> <table border="1"> <thead> <tr> <th>FNO</th><th>AIRLINES</th><th>FARE</th><th>TAX</th></tr> </thead> <tbody> <tr> <td>IC301</td><td>Indian Airlines</td><td>9425</td><td>5</td></tr> <tr> <td>IC799</td><td>Spice Jet</td><td>8846</td><td>10</td></tr> <tr> <td>MC101</td><td>Deccan Airlines</td><td>4210</td><td>7</td></tr> <tr> <td>IC302</td><td>Jet Airways</td><td>13894</td><td>5</td></tr> <tr> <td>AM812</td><td>Indian Airlines</td><td>4500</td><td>6</td></tr> <tr> <td>MU499</td><td>Sahara</td><td>12000</td><td>4</td></tr> </tbody> </table> <p>With reference to these tables, write commands in SQL for (i) and (ii) and output for (iii) below:</p> <ol style="list-style-type: none"> To display flight number, source, airlines of those flights where fare is less than Rs. 10000. To count total no of Indian Airlines flights starting from various cities. SELECT FLIGHTS.FNO, NO_OF_FL, AIRLINES FROM FLIGHTS,FARES WHERE FLIGHTS.FNO = FARES.FNO AND SOURCE='DELHI'; 	FNO	SOURCE	DEST	NO_OF_FL	NO_OF_STO P	IC301	MUMBAI	BANGALORE	3	2	IC799	BANGALORE	KOLKATA	8	3	MC101	DELHI	VARANASI	6	0	IC302	MUMBAI	KOCHI	1	4	AM812	LUCKNOW	DELHI	4	0	MU499	DELHI	CHENNAI	3	3	FNO	AIRLINES	FARE	TAX	IC301	Indian Airlines	9425	5	IC799	Spice Jet	8846	10	MC101	Deccan Airlines	4210	7	IC302	Jet Airways	13894	5	AM812	Indian Airlines	4500	6	MU499	Sahara	12000	4
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14.	A table STUDENT has 5 rows and 3 columns. Table ACTIVITY has 4 rows and 2 columns. What will be the cardinality and degree of the Cartesian product of them ?																																																															
15.	<p>Consider the following table named “GARMENT”.</p> <p>What is the degree and cardinality of ‘Garment’ table ?</p>																																																															
16.	<p>In a Database, there are two tables given below :</p> <p>Table : EMPLOYEE</p> <table border="1"> <thead> <tr> <th>EMPLOYEEID</th> <th>NAME</th> <th>SALES</th> <th>JOBID</th> </tr> </thead> <tbody> <tr> <td>E1</td> <td>SAMIT SINHA</td> <td>1100000</td> <td>102</td> </tr> <tr> <td>E2</td> <td>VIJAY SINGH TOMAR</td> <td>1300000</td> <td>101</td> </tr> <tr> <td>E3</td> <td>AJAY RAJPAL</td> <td>1400000</td> <td>103</td> </tr> <tr> <td>E4</td> <td>MOHIT RAMNANI</td> <td>1250000</td> <td>102</td> </tr> <tr> <td>E5</td> <td>SHAILJA SINGH</td> <td>1450000</td> <td>103</td> </tr> </tbody> </table> <p>Table : JOB</p> <table border="1"> <thead> <tr> <th>JOBID</th> <th>JOBTITLE</th> <th>SALARY</th> </tr> </thead> <tbody> <tr> <td>101</td> <td>President</td> <td>200000</td> </tr> <tr> <td>102</td> <td>Vice President</td> <td>125000</td> </tr> <tr> <td>103</td> <td>Administration Assistant</td> <td>80000</td> </tr> <tr> <td>104</td> <td>Accounting Manager</td> <td>70000</td> </tr> <tr> <td>105</td> <td>Accountant</td> <td>65000</td> </tr> <tr> <td>106</td> <td>Sales Manager</td> <td>80000</td> </tr> </tbody> </table> <p>Write SQL Queries for the following :</p> <ol style="list-style-type: none"> To display employee ids, names of employees, job ids with corresponding job titles. To display names of employees, sales and corresponding job titles who have achieved sales more than 1300000. To display names and corresponding job titles of those employee who have ‘SINGH’ (anywhere) in their names. 	EMPLOYEEID	NAME	SALES	JOBID	E1	SAMIT SINHA	1100000	102	E2	VIJAY SINGH TOMAR	1300000	101	E3	AJAY RAJPAL	1400000	103	E4	MOHIT RAMNANI	1250000	102	E5	SHAILJA SINGH	1450000	103	JOBID	JOBTITLE	SALARY	101	President	200000	102	Vice President	125000	103	Administration Assistant	80000	104	Accounting Manager	70000	105	Accountant	65000	106	Sales Manager	80000																		
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	(iv) Identify foreign key in the table EMPLOYEE.																																										
17.	<p>Consider the tables given below.</p> <table border="1"> <thead> <tr> <th colspan="4">Salesperson</th> <th colspan="3">Orders</th> </tr> <tr> <th>SalespersonId</th> <th>Name</th> <th>Age</th> <th>Salary</th> <th>OrderId</th> <th>SalespersonId</th> <th>Amount</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Ajay</td> <td>61</td> <td>140000</td> <td>10</td> <td>2</td> <td>54000</td> </tr> <tr> <td>2</td> <td>Sunil</td> <td>34</td> <td>44000</td> <td>20</td> <td>7</td> <td>18000</td> </tr> <tr> <td>5</td> <td>Chris</td> <td>34</td> <td>40000</td> <td>30</td> <td>1</td> <td>46000</td> </tr> <tr> <td>7</td> <td>Amaaya</td> <td>41</td> <td>52000</td> <td>40</td> <td>5</td> <td>24000</td> </tr> </tbody> </table> <p>i. The SalespersonId column in the "Salesperson" table is the what? The SalespersonId column in the "Orders" table is a what ? ii. Can the 'SalespersonId' be set as the primary key in table 'Orders'. Give reason.</p>	Salesperson				Orders			SalespersonId	Name	Age	Salary	OrderId	SalespersonId	Amount	1	Ajay	61	140000	10	2	54000	2	Sunil	34	44000	20	7	18000	5	Chris	34	40000	30	1	46000	7	Amaaya	41	52000	40	5	24000
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18.	<p>With reference to the above given tables, Write commands in SQL for (i) and (ii) and output for (iii) below:</p> <ol style="list-style-type: none"> To display SalespersonID, names, orderids and order amount of all salespersons. To display names ,salespersons ids and order ids of those sales persons whose names start with 'A' and sales amount is between 15000 and 20000. SELECT Salesperson.SalespersonId, name, age, amount FROM Salesperson, orders WHERE Salesperson.salespersonId= Orders.salespersonId AND AGE BETWEEN 30 AND 45; 																																										
19.	<p>Consider the tables given below :</p> <p style="text-align: center;">Table : Faculty</p> <table border="1"> <thead> <tr> <th>TeacherId</th> <th>Name</th> <th>Address</th> <th>State</th> <th>PhoneNumber</th> </tr> </thead> <tbody> <tr> <td>T101</td> <td>Savita Sharma</td> <td>A-151, Adarsh Nagar</td> <td>Delhi</td> <td>991019564</td> </tr> <tr> <td>T102</td> <td>Deepak Ghai</td> <td>K-5/52, Vikas Vihar</td> <td>Mumbai</td> <td>893466448</td> </tr> <tr> <td>T103</td> <td>MahaLakshmi</td> <td>D-6</td> <td>Delhi</td> <td>981166568</td> </tr> <tr> <td>T104</td> <td>Simi Arora</td> <td></td> <td>Mumbai</td> <td>658777564</td> </tr> </tbody> </table> <p style="text-align: center;">Table : Course</p> <table border="1"> <thead> <tr> <th>Courseld</th> <th>Subject</th> <th>TeacherId</th> <th>Fee</th> </tr> </thead> <tbody> <tr> <td>C101</td> <td>Introductory Mathematics</td> <td>T101</td> <td>4500</td> </tr> <tr> <td>C103</td> <td>Physics</td> <td>T101</td> <td>5000</td> </tr> </tbody> </table>	TeacherId	Name	Address	State	PhoneNumber	T101	Savita Sharma	A-151, Adarsh Nagar	Delhi	991019564	T102	Deepak Ghai	K-5/52, Vikas Vihar	Mumbai	893466448	T103	MahaLakshmi	D-6	Delhi	981166568	T104	Simi Arora		Mumbai	658777564	Courseld	Subject	TeacherId	Fee	C101	Introductory Mathematics	T101	4500	C103	Physics	T101	5000					
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		C105	Advance Computer Science	T104	6500																																																
	(i) Which column is used to relate the two tables ? (ii) Is it possible to have a primary key and a foreign key both in one table ? Justify your answer with the help of table given above.																																																				
	i) TeacherID ii) Yes, it is possible to have both Primary and foreign key in one table. For Example in the above course table CourseID is a primary key and teacherid is the foreign key.																																																				
20.	With reference to the above given tables, write commands in SQL for (i) and (ii) and output for (iii) : (i) To display CourseId, TeacherId, Name of Teacher, Phone Number of Teachers living in Delhi. (ii) To display TeacherID, Names of Teachers, Subjects of all teachers with names of Teachers starting with 'S'. (iii) SELECT CourseId, Subject, Course.TeacherId, Name, PhoneNumber FROM Faculty, Course WHERE Faculty.TeacherId = Course.TeacherId AND Fee >= 5000;																																																				
21.	Consider the tables given below which are linked with each other and maintains referential integrity: Table: SAP <table border="1"> <thead> <tr> <th>SAPID</th> <th>ItemCode</th> <th>ItemName</th> <th>ItemStorage Location</th> </tr> </thead> <tbody> <tr> <td>S1001</td> <td>1001</td> <td>Receiver</td> <td>W12-B3-R24</td> </tr> <tr> <td>S1002</td> <td>1002</td> <td>Transponder</td> <td>W13-B7-R87</td> </tr> <tr> <td>S1003</td> <td>1003</td> <td>Battery Bank</td> <td>W21-B1-R87</td> </tr> <tr> <td>S1004</td> <td>1004</td> <td>Inverter</td> <td>W21-B11-R2</td> </tr> <tr> <td>S1005</td> <td>1005</td> <td>Genset</td> <td>W22-B15-R16</td> </tr> </tbody> </table> Table : Store <table border="1"> <thead> <tr> <th>StoreID</th> <th>ItemCode</th> <th>StoreLocation</th> <th>ReceivedDate</th> </tr> </thead> <tbody> <tr> <td>1201</td> <td>1001</td> <td>Hauz Khas</td> <td>2016/05/20</td> </tr> <tr> <td>1202</td> <td>1002</td> <td>Rajouri Garden</td> <td>2016/06/14</td> </tr> <tr> <td>1203</td> <td>1003</td> <td>Rohini</td> <td>2016/05/06</td> </tr> <tr> <td>1204</td> <td>1004</td> <td>Hauz Khaas</td> <td>2016/07/15</td> </tr> <tr> <td>1205</td> <td>1005</td> <td>Rajendra Place</td> <td>2016/05/27</td> </tr> </tbody> </table> With reference to the above given tables, write commands in SQL for (i) and (ii) and output for (iii) below: <ol style="list-style-type: none"> To display the ItemCode, ItemName and ReceivedDate of all the items . To display SAPID, ItemName, ItemStorageLocation of all the items whose Received date is after 2nd May 2016. SELECT SAPID, ItemName, STOREID FROM SAP, Store WHERE SAP.ItemCode=Store.ItemCode AND StoreLocation = "Hauz Khas" What will be the degree and cardinality of the cartesian product formed while combining both the above given tables 'SAP' and 'Store' ? Sangeeta is not able to add a new record in the table 'Store' through the following query: Insert into store values (1206,1006,'Karol Bagh', '2016/07/25'); Identify the error if there is any 					SAPID	ItemCode	ItemName	ItemStorage Location	S1001	1001	Receiver	W12-B3-R24	S1002	1002	Transponder	W13-B7-R87	S1003	1003	Battery Bank	W21-B1-R87	S1004	1004	Inverter	W21-B11-R2	S1005	1005	Genset	W22-B15-R16	StoreID	ItemCode	StoreLocation	ReceivedDate	1201	1001	Hauz Khas	2016/05/20	1202	1002	Rajouri Garden	2016/06/14	1203	1003	Rohini	2016/05/06	1204	1004	Hauz Khaas	2016/07/15	1205	1005	Rajendra Place	2016/05/27
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