1. Write a SQL statement to create a simple table of countries including columns country\_id,country\_name and region\_id which already exists.
2. Write a SQL statement to create a table named jobs including columns job\_id, job\_title, min\_salary, max\_salary and check whether the max\_salary amount exceeding the upper limit 25000.
3. Write a SQL statement to create a table named countries including columns country\_id, country\_name and region\_id and make sure that no countries except Italy, India and China will be entered in the table.
4. Write a SQL statement to create a table named job\_histry including columns employee\_id, start\_date, end\_date, job\_id and department\_id and make sure that the value against column end\_date will be entered at the time of insertion to the format like '--/--/----'.
5. Write a SQL statement to create a table named countries including columns country\_id,country\_name and region\_id and make sure that no duplicate data against column country\_id will be allowed at the time of insertion.
6. Write a SQL statement to create a table named jobs including columns job\_id, job\_title, min\_salary and max\_salary, and make sure that, the default value for job\_title is blank and min\_salary is 8000 and max\_salary is NULL will be entered automatically at the time of insertion if no value assigned for the specified columns.
7. Write a SQL statement to create a table named countries including columns country\_id, country\_name and region\_id and make sure that the country\_id column will be a key field which will not contain any duplicate data at the time of insertion.
8. Write a SQL statement to create a table countries including columns country\_id, country\_name and region\_id and make sure that the column country\_id will be unique and store an auto incremented value.
9. Write a SQL statement to create a table countries including columns country\_id, country\_name and region\_id and make sure that the combination of columns country\_id and region\_id will be unique.
10. Write a SQL statement to create a table job\_history including columns employee\_id, start\_date, end\_date, job\_id and department\_id and make sure that, the employee\_id column does not contain any duplicate value at the time of insertion and the foreign key column job\_id contain only those values which are exists in the jobs table.

Here is the structure of the table jobs;

------------+--------------+------+-----+---------+-------+

| Field | Type | Null | Key | Default | Extra |

+------------+--------------+------+-----+---------+-------+

| JOB\_ID | varchar(10) | NO | PRI | | |

| JOB\_TITLE | varchar(35) | NO | | NULL | |

| MIN\_SALARY | decimal(6,0) | YES | | NULL | |

| MAX\_SALARY | decimal(6,0) | YES | | NULL | |

+------------+--------------+------+-----+---------+-------+

1. Write a SQL statement to create a table employees including columns employee\_id, first\_name, last\_name, email, phone\_number hire\_date, job\_id, salary, commission, manager\_id and department\_id and make sure that, the employee\_id column does not contain any duplicate value at the time of insertion and the foreign key columns combined by department\_id and manager\_id columns contain only those unique combination values, which combinations are exists in the departments table.

Assume the structure of departments table below.

| Field | Type | Null | Key | Default |Extra

+-----------------+--------------+------+-----+---------+-----

| DEPARTMENT\_ID | decimal(4,0) | NO | PRI | 0 | |

| DEPARTMENT\_NAME | varchar(30) | NO | | NULL | |

| MANAGER\_ID | decimal(6,0) | NO | PRI | 0 | |

| LOCATION\_ID | decimal(4,0) | YES | | NULL | |

+-----------------+--------------+------+-----+---------+-----

1. Write a SQL statement to insert a record with your own value into the table countries against each columns.

Here in the following is the structure of the table countries.

--------------+---------------+------+-----+---------+-------+

| Field | Type | Null | Key | Default | Extra |

+--------------+---------------+------+-----+---------+-------+

| COUNTRY\_ID | varchar(2) | YES | | NULL | |

| COUNTRY\_NAME | varchar(40) | YES | | NULL | |

| REGION\_ID | decimal(10,0) | YES | | NULL | |

+--------------+---------------+------+-----+---------+------

Write a SQL statement to insert 3 rows by a single insert statement.

Write a SQL statement insert rows from country\_new table to countries table.

Here is the rows for country\_new table. Assume that, the countries table is empty.

------------+--------------+-----------+

| COUNTRY\_ID | COUNTRY\_NAME | REGION\_ID |

+------------+--------------+-----------+

| C0001 | India | 1001 |

| C0002 | USA | 1007 |

| C0003 | UK | 1003 |

+------------+--------------+-----------+

Write a SQL statement to rename the table countries to country\_new.

Write a SQL statement to add a primary key for a combination of columns location\_id and country\_id.

Here is the structure of the table locations.

----------------+--------------+------+-----+---------+-------+

| Field | Type | Null | Key | Default | Extra |

+----------------+--------------+------+-----+---------+-------+

| LOCATION\_ID | decimal(4,0) | YES | | NULL | |

| STREET\_ADDRESS | varchar(40) | YES | | NULL | |

| POSTAL\_CODE | varchar(12) | YES | | NULL | |

| CITY | varchar(30) | YES | | NULL | |

| STATE\_PROVINCE | varchar(25) | YES | | NULL | |

| COUNTRY\_ID | varchar(2) | YES | | NULL | |

+----------------+--------------+------+-----+---------+-------+

**13.** Write a SQL statement that displays all the information about all salespeople.

*Sample table*: salesman

salesman\_id | name | city | commission

-------------+------------+----------+------------

5001 | James Hoog | New York | 0.15

5002 | Nail Knite | Paris | 0.13

5005 | Pit Alex | London | 0.11

5006 | Mc Lyon | Paris | 0.14

5007 | Paul Adam | Rome | 0.13

5003 | Lauson Hen | San Jose | 0.12

14. Write a SQL statement to display specific columns such as names and commissions for all salespeople.    
*Sample table*: salesman

salesman\_id | name | city | commission

-------------+------------+----------+------------

5001 | James Hoog | New York | 0.15

5002 | Nail Knite | Paris | 0.13

5005 | Pit Alex | London | 0.11

5006 | Mc Lyon | Paris | 0.14

5007 | Paul Adam | Rome | 0.13

5003 | Lauson Hen | San Jose | 0.12

15. Write a query to display the columns in a specific order, such as order date, salesman ID, order number, and purchase amount for all orders.    
*Sample table*: orders

ord\_no purch\_amt ord\_date customer\_id salesman\_id

---------- ---------- ---------- ----------- -----------

70001 150.5 2012-10-05 3005 5002

70009 270.65 2012-09-10 3001 5005

70002 65.26 2012-10-05 3002 5001

70004 110.5 2012-08-17 3009 5003

70007 948.5 2012-09-10 3005 5002

70005 2400.6 2012-07-27 3007 5001

70008 5760 2012-09-10 3002 5001

70010 1983.43 2012-10-10 3004 5006

70003 2480.4 2012-10-10 3009 5003

70012 250.45 2012-06-27 3008 5002

70011 75.29 2012-08-17 3003 5007

70013 3045.6 2012-04-25 3002 5001

16. From the following table, write a SQL query to identify the unique salespeople ID. Return salesman\_id.

*Sample table*: orders

ord\_no purch\_amt ord\_date customer\_id salesman\_id

---------- ---------- ---------- ----------- -----------

70001 150.5 2012-10-05 3005 5002

70009 270.65 2012-09-10 3001 5005

70002 65.26 2012-10-05 3002 5001

70004 110.5 2012-08-17 3009 5003

70007 948.5 2012-09-10 3005 5002

70005 2400.6 2012-07-27 3007 5001

70008 5760 2012-09-10 3002 5001

70010 1983.43 2012-10-10 3004 5006

70003 2480.4 2012-10-10 3009 5003

70012 250.45 2012-06-27 3008 5002

70011 75.29 2012-08-17 3003 5007

70013 3045.6 2012-04-25 3002 5001

17. From the following table, write a SQL query to locate salespeople who live in the city of 'Paris'. Return salesperson's name, city.

*Sample table*: salesman

salesman\_id | name | city | commission

-------------+------------+----------+------------

5001 | James Hoog | New York | 0.15

5002 | Nail Knite | Paris | 0.13

5005 | Pit Alex | London | 0.11

5006 | Mc Lyon | Paris | 0.14

5007 | Paul Adam | Rome | 0.13

5003 | Lauson Hen | San Jose | 0.12

18. From the following table, write a SQL query to find customers whose grade is 200. Return customer\_id, cust\_name, city, grade, salesman\_id.

*Sample table*: customer

customer\_id | cust\_name | city | grade | salesman\_id

-------------+----------------+------------+-------+-------------

3002 | Nick Rimando | New York | 100 | 5001

3007 | Brad Davis | New York | 200 | 5001

3005 | Graham Zusi | California | 200 | 5002

3008 | Julian Green | London | 300 | 5002

3004 | Fabian Johnson | Paris | 300 | 5006

3009 | Geoff Cameron | Berlin | 100 | 5003

3003 | Jozy Altidor | Moscow | 200 | 5007

3001 | Brad Guzan | London | | 5005

**19.** Write a query to display employee details (Name, Department, Salary and Job) from EMP table.

1. Design sample database, draw ER diagram and Study of MySQL Database Management System.
2. Draw an ER diagram for the following application from the hospital:

* A doctor has one or more patients to treat
* Each doctor has an unique Doctor ID
* Each patient has a name, phone number, address and date of birth
* Patient entity is a weak entity
* Age is a derived attribute

1. Draw an ER diagram for the following application from the manufacturing industry:

* Each supplier has a unique name.
* More than one supplier can be located in the same city.
* Each part has a unique part number.
* Each part has a colour.
* A supplier can supply more than one part.
* A part can be supplied by more than one supplier.

1. Draw an ER diagram for the following application from the ABC Company:

* Employees work for many projects and each project has many employees
* Each employee has an unique Emp\_No
* Each employee has a name and name consists of first name, middle name and last name
* Each project has an unique number and name

1. Data Definition Commands for creating database and tables (relations)
2. Create a Table for Manufacturing industry / Hospital/ Company with min 5 columns add primary key.
3. Alter any one column from the above table.
4. Rename two columns from the above table
5. Truncate the table
6. Drop the table.
7. Implement using mysql
8. Insert 5 values in the Table for Manufacturing industry / Hospital/ Company.
9. Update the values from the tables Manufacturing industry / Hospital/ Company.
10. Delete minimum 2 values from Manufacturing industry / Hospital/ Company table
11. Implement using mysql…
12. Write a Group-by query for one/two columns in Manufacturing industry / Hospital/ Company table
13. Write a Having clause query for Manufacturing industry / Hospital/ Company table
14. Write a queries to make use of aggregate functions Count(), Sum(), Avg(),Min(),Max()
15. Implement Trigger using mysql, use appropriate tables.
16. Implement function in mysql, create table & database.
17. Implement parameterised procedure to calculate square of a number using mysql.