Worksheet -1, MySQL

Write SQL statement to do the following:

1. To show the list of existing databases.

   _____

2. To create a new database named as 'Horizons'.

   _____

3. To show the list of tables.

   _____

4. To display the name of active database.

   _____

5. To create a new table named as 'sentinel' with the following structure:

field name	Data Type	size
Code	char	10
EName	varchar	20
city	varchar	20
Salary	integer	7
Commision	decimal	8,1
DOJ	date	

   _____

   _____

6. To display the structure of the table 'sentinel'.

   _____

7. To add a new column email_ID with the data type varchar and size 30 in the table 'sentinel'.

   _____

8. To modify a column salary with datatype as integer and size 6.

   _____

9. To drop a column email_ID.

   _____

10. Find Primary key, Alternate keys and candidate keys from the following table:

StudentId	firstName	lastName	courseId
L0002345	Jim	Black	C002
L0001254	James	Harradine	A004
L0002349	Amanda	Holland	C002
L0001198	Simon	McCloud	S042
L0023487	Peter	Murray	P301
L0018453	Anne	Norris	S042

    _____

    _____

Worksheet -2, MySQL(DML)

Consider the following table FACULTY. Write SQL statement to do the following:

F_ID	Fname	Lname	Hire_date	Salary	Department	Incentive	Grade
102	Amit	Mishra	12-10-1998	12000	Admin	1000	A
103	Nitin	Vyas	24-12-1994	8000	Teaching		A
104	Rakshit	Mishra	18-5-2001	14000	Admin	3000	B
105	Rashmi	Malhotra	11-9-2004	11000	Teaching		C
106	Sulekha	Srivastava	5-6-2006	10000	Library	500	D

1. To insert the record as 107, Neelam, Sharma, 6-7-2000, 20000, Teaching, null .

   _____

2. To insert the record in the fields F_ID, Fname and Salary as 108, Seema, 10000.

   _____

3. To display faculty's details joined after 31-12-2000 of teaching department.

   _____

4. To display the last name, salary of non-teaching department (Using Logical operator).

   _____

5. To display first name of Mishra or Vyas only.

   _____

6. To display details of those Faculties whose Grade is B,C,D only.

   _____

7. To display the details of faculties whose salary is in the range of 10000 to 12000 (both values included) using logical operator only.

   _____

8. To display details of Faculty whose last name starts with 'M'.

   _____

9. To display details of Faculty whose first name contains 'm'.

   _____

10. To display details of Faculty whose first name does not contain 'a'.

    _____

11. To display details of Faculty whose first name contains 'i' as the second last character.

    _____

12. To display details of Faculty whose first name does not contain 'a'.

_____

.

13. To display details of those Faculties whose Grade except B, C, D .

_____

14. To display details of Faculties descending order of their salary.

_____

15. To display details of Faculties ascending order of their first name and whose salary is more than 12000.

_____

16. Increase the incentive of all the faculties by Rs. 200/-

_____

17. Change the last name as 'Verma' of Sulekha faculty.

_____

18. Insert a new column bonus as decimal type with size 8,2.

_____

19. For each faculty set bonus as (Salary + incentive) of 10%.

_____

20. Delete the records of faculties who joined before 1-1-98.

_____

21. Delete all the records.

_____

Write outputs for the following SQL statements:

22. SELECT FNAME, LNAME AS 'LAST_NAME' FROM FACULTY ORDER BY LAST_NAME;

23. SELECT FNAME FROM FACULTY WHERE LNAME LIKE '%sh__' AND INCENTIVE IS NOT NULL;

Worksheet -3, MySQL(DML)

Consider the following table FACULTY. Write SQL statement to do the following:

F_ID	Fname	Lname	Hire_date	Salary	Department	Incentive
102	Amit	Mishra	12-10-1998	12000	Admin	1000
103	Nitin	Vyas	24-12-1994	8000	Teaching	
104	Rakshit	Soni	18-5-2001	14000	Admin	3000
105	Rashmi	Malhotra	11-9-2004	11000	Teaching	500
106	Sulekha	Srivastava	5-6-2006	10000	Library	500

1. To open the database named as 'school'.

    _____

2. To display all the details of all Faculties.

    _____

3. To display faculty's first name and Hire_date.

    _____

4. To display the last name, salary and increment of Rs 500/ in the salary.

    _____

5. To display the different departments.

    _____

6. To display details of those Faculties whose salary is greater than 12000.

    _____

7. To display the details of faculties whose salary is in the range of 10000 to 12000 (both values included).

    _____

8. To display details of 'Sulekha' Faculty.

    _____

9. To display the details of faculties whose salary is not in the range of 10000 to 12000.

    _____

10. To display the first name and last name of those faculties who have joined before 1st January 2000.

    _____

11. To display the faculty ID and salary who do not belong to teaching.

    _____

12. **To display the faculty ID and last name of those faculties who have joined after 1ˢᵗ January 2000.**

_____

13. **To display the details of faculties whose are getting some incentives.**

_____

14. **To display the first name of those faculties whose are not getting any incentive.**

_____

15. **To insert first record in a table.**

_____

16. **To insert first name, last name and salary as Seema, Sharma, 20000 in a table**

_____

Write Output for the following SQL statements:

17. **SELECT FNAME, INCENTIVE FROM FACULTY;**

18. **SELECT LNAME, SALARY+INCENTIVE AS 'GTOTAL' FROM FACULTY;**

19. **SELECT DISTINCT DEPARTMENT FROM FACULTY;**

20. **SELECT FNAME FROM FACULTY WHERE DEPARTMENT='LIBRARY';**

21. **SELECT FNAME, SALARY%6 FROM FACULTY;**

Worksheet -4, MySQL (Functions)

Write output for the following SQL statements:

11. SELECT ASCII('RAM');   (ASCII value of A-65, R- 82, M- 77)

_____

12. SELECT CURDATE( );

_____

13. SELECT SUBSTR('COMPUTER', 3, 4);

_____

14. SELECT LOWER('RAHUL');

_____

15. SELECT LENGTH(CONCAT('MY',' ','BOOK',RIGHT('MID SEMESTER',4)));

_____

16. SELECT POW(-6,3), POWER(3,4);

_____

17. SELECT INSTR('COUREOUR','OUR');

_____

18. SELECT ROUND(9.50,1),ROUND(2.346789,3),ROUND(123675,-2);

_____

19. SELECT INSTR(MID('COMPUTER',4),'PUT');

_____

20. SELECT LENGTH (TRIM ('!!!!HORIZONS!!SECURITY!!!'));   (! Represents blank space)

_____

21. SELECT LENGTH (LTRIM('!!!!!HORIZONS!!!')), LENGTH(RTRIM('!!!!!HORIZONS!!!'));
    (! Represents blank space)

_____

22. SELECT TRUNCATE(123658.3657,3), TRUNCATE(123658.6589,-2);

._____

23. SELECT ROUND(-1.23), ROUND(-2.58);

_____

24. SELECT UCASE('sdfGYa');.

_____

25. SELECT DATE('2003-09-12 01:09:07');

_____

26. SELECT DAYOFMONTH(CURDATE());

_____

27. SELECT DAYOFWEEK('2007-02-03');   (1ST FEB – THURSDAY)

_____

28. SELECT MONTH(CURDATE());

_____

29. SELECT YEAR('2016-09-06');

_____

30. SELECT DAYOFYEAR('2016-03-23');

_____

31. SELECT SYSDATE(),SLEEP(5),SYSDATE();

_____

32. SELECT NOW(),SLEEP(),NOW();

_____

33. SELECT DAYNAME('2017-08-27');

_____

34. SELECT YEAR(CURDATE())+9;

_____

35. SELECT MID('TYPOGRAPHY' FROM 4 FOR 2);

_____

36. SELECT SUBSTRING('EDUCATIONLINE' FROM -8 FOR 5);

_____

37. SELECT CONCAT('MY',NULL,'BOOK');

_____

38. SELECT SUBSTRING('EDUCATION',-5);

_____

39. SELECT SUBSTRING('EDUCATION',4);

_____

40. SELECT MONTHNAME('2017-03-10');

_____

Worksheet -5, MySQL(Functions)

Consider the following table. Write SQL statements for the following:

Table: Workers

W_IDs	Salary	Designation	Jdate	Address
001	7000	Salesman	08-01-2017	Palwal
002	8500	Salesman	09-02-2001	Faridabad
003	7500	Salesman	10-10-2009	Delhi
004	15000	Clerk	08-11-2016	Gurgoan
005	12000	Clerk	10-12-2004	Delhi
006	20000	Manager	10-12-2003	Faridabad
007	12000	Clerk	09-01-2006	Faridabad
008	25000	Manager	08-05-2001	Palwal

1. To display the details of workers designation in lower case.

2. To display the details of workers address in capital letter along with joining date.

3. To display salary along with commission calculated as (salary X 5%) after rounding off at the nearest rupee.

4. To display the detail of workers who joined after the year 2006.

5. To display the details of worker whose designation has letter 'e' at the third or fourth position.

6. To display the first three characters from address.

7. To display last five characters from designation.

8. To display the details of designation after removing the leading and trailing spaces.

9. To display the four characters from the address field starting from the fifth position .

10. To display the details of the worker who joined on Monday.

11. To display the details of workers who have joined on the 4th day of the week.

12. To display the worker ID, salary and designation who joined in the month march.

13. To display the designation concatenated with salary as per the following format:
    <designation> "has salary" <salary>

14. To display the details of workers who joined on March or June.

15. Display the day name of the week on which Salesman have joined.

16. Display the total number of characters in address field.

17. Display the worker details who joined on 1st of any month.

18. To display salary along with commission calculated as (salary X 5%) truncated to integer value.

Worksheet -6, MySQL(Aggregate Functions, Group by)

Consider the following table. Write SQL statements for the following:

Table: Workers

W_IDs	Salary	Designation	Commission	Jdate	Address
001	7000	Salesman	NIL	08-01-2017	Palwal
002	8500	Salesman	800	09-02-2001	Faridabad
003	7500	Salesman	NIL	10-10-2009	Delhi
004	15000	Clerk	1000	08-11-2016	Gurgoan
005	12000	Clerk	900	10-12-2004	Delhi
006	20000	Manager	2000	10-12-2003	Faridabad
007	12000	Clerk	900	09-01-2006	Faridabad
008	25000	Manager	3000	08-05-2001	Palwal

1. To display the total salary of clerk workers.

2. To display the average commission of workers who joined after 2015.

3. To display the details of workers with highest salary and lowest salary.

4. To display how many workers are getting commission.

5. To display the maximum commission and total salary for each designation.

6. To display total salary in each year

7. To display Net salary after adding commission for different cities.

8. To display the total salary for each designation other than manager and whose average commission is more than 500.

9. To display the minimum commission for different cities for those whose are less than or equal to one in number.

10. Display total number of workers in different cities.

_____

Write the output for the following SQL statements:

11. SELECT DESIGNATION, AVERAGE(COMMISSION) FROM WORKERS GROUP BY DESIGNATION;

12. SELECT COUNT(COMMISSION) FROM WORKERS;

13. SELECT COUNT(*) FROM WORKERS;

14. SELECT ADDRESS, MAX(SALARY) FROM WORKERS WHERE DESIGNATION !='CLERK' GROUP BY ADDRESS HAVING AVERAGE(COMMISION)<=800;

15. SELECT ADDRESS,SUM(SALARY+COMMISSION) FROM WORKERS GROUP BY ADDRESS;

Worksheet -7, MySQL (Joins, Constraints)

Consider the following tables. Write SQL statements for the following:

Table:Train

TrainId	TName	Source	Destination	Fare
3402	Century Express	New Delhi	Mumbai	1000
4023	Superfast Express	Kanyakumari	Chandigarh	800
3424	Lucknow Mail	Lucknow	New Delhi	500
6542	Capital Express	Chennai	Kolkata	800
9876	Punjab Mail	Patna	Ludhiana	700
5400	Century Express	New Delhi	Kanpur	800

Table: Reservation

RefNo	TrainId	Passenger	JourneyDate
S001	4023	Shubham Singh	2017-07-02
C001	6542	Jishan Mittal	2017-06-25
S002	4023	Jessica Raj	2017-07-02
P001	9876	Paramjeet Singh	2017-07-22
S003	4023	Gurjyot Singh	2017-07-03
C002	6542	Akash Mukharjee	2017-06-25
P002	9876	Meera Devi	2017-07-22
L001	3424	Ruby Lal	2017-06-29
C003	5400	Tapshree	2017-07-04

1. Identify the primary key column and foreign key of Train and Reservation.

2. Many values in TrainId of Reservation table are appearing more than one. Is there any discrepancy? Give reason for your answer.

3. Help Mr. Sajal in identifying the wrong statement with reference to UNION clause:
   a. Each SELECT statement within UNION must have the same number of columns
   b. The columns must also have similar data types.
   c. The columns in each SELECT statement must also be in the same order.
   d. By default, the UNION operator selects all the values.

4. To display the Train name along with its passenger name.

5. To display Train detail which has no reservation yet.

6. To display total number of passengers for each train name except 'Lucknow Mail' who's number of passengers are more than one.

7. I want to add a record in reservation table as (C004, 5401, Naman, 2017-09-23). Can I insert this record in the table? Justify.
8. To display the passengers details who travelled in the month of June.

9. To display the Total fare received for different train of those whose average fare is less than ₹ 500.

_____

10. Do you find any specific pattern in 'RefNo' column of Reservation table? If yes, then explain.

_____

_____

11. To add primary key constraint to TrainId and Tname.

_____

12. To drop primary key constraint from Tname column.

_____

13. To add Not Null constraint to Tname column.

_____

14. To remove Not Null Constraint from Tname column.

_____

15. To remove a column 'tname' which has primary key constraint and one more column 'Tid' has primary key constraint. What conditions should be met to remove that column?

_____

_____

Write the output for the following SQL statements:

16. SELECT T.* from Train T, Reservation R where T.TrainId=R.TrainId AND Source LIKE "%Delhi" OR Destination LIKE "%Delhi";

17. SELECT TrainId from Train UNION SELECT TrainId from Reservation;

18. SELECT TrainId from Train UNION ALL SELECT TrainId from Reservation;

19. SELECT TrainId from Train INTERSECT SELECT TrainId from Reservation;

20. SELECT Tname from Train T, Reservation R where T.TrainId != R.TrainId;

Worksheet -8, MySQL (Theory)

1. Define the following with example:
   Tuple, Attribute, Relation, Database, Relational Database.
2. Differentiate between Primary key, Candidate key and Alternate key.
3. What is the similarity and difference between Primary key and unique constraint?
4. What is the similarity and difference between Primary key and Not Null constraint?
5. What is foreign key? What is its importance?
6. How Referential Integrity constraint is implemented in RDBMS?
7. Differentiate between UNION and UNION ALL.
8. Explain all the categories of SQL commands with two examples each.
9. Differentiate between ALTER and Update command.
10. Differentiate between DROP and DELETE command.
11. What is Null? What will happen if Null is present in any expression?
12. What is the relation between SQL and MySQL?
13. What is transaction? Write two statements to terminate transaction.
14. Which statements are used to start transaction?
15. Differentiate between Rollback and Commit command.
16. Write SQL statement to switch on the commit mode and off the commit mode.
17. What will happen if DDL statement is written after auto commit mode is set to off?
18. What will happen to DML statements if DDL statement is written after auto commit mode is set to off?
19. What happens if we write START TRANSACTION statement?
20. What is the use of SAVEPOINT? Write SQL statement to define Savepoint.
21. What is the use of Enum and set constraint?
22. Differentiate between 'having' and 'Where'.
23. Differentiate between Single Row and Aggregate functions with two examples each.
24. Differentiate between '/' and '%' operator.
25. State all the logical operators with their usage and symbol.
26. Which two characters are used with 'Like' clause? Differentiate between them.
27. Differentiate between 'IN' and 'Between' clause.
28. Differentiate char and varchar data type.
29. Differentiate between Cross join/Cartesian product and Equi - join.
30. What is constraints? Are constraints useful or are they hindrance to effective management of database. State some constraints.
31. How equi-join is formed?
32. How are Null values treated by aggregate functions?
33. Does MySQL allow to change the primary key in all cases? If there is some special case, please mention.
34. What is cardinality and degree?
35. There is a table T1 with combination of columns C1, C2 and C3 as its primary key? Is it possible to enter:
    a) NULL values in any of these columns.
    b) Duplicate values in any of these columns.
36. At the time of creation of table X, the database administrator specified Y as the primary key. Later on he realized that instead of Y, the combination of column P and Q should have been the primary key of the table. Based on this scenario, answer the following questions:

a) Is it possible to keep Y as well as the combination of P and Q as the primary key?

b) What statement(s) should be entered to change the primary key as per the requirement?

37. Does MySQL allow to change the primary key in all cases? If there is some special case, please mention.

38. Which keyword is used to extract unique values from a particular column?

39. Expand the following:

DDL, DML, DCL, SQL, RDBMS, DBMS

40. Name some popular DBMS software.

41. Consider an emp table with location column. Entering data for the location column is optional. If one enters data for a row with no value for the "location" column, what value will be saved in the "location" column? Write SQL statement to display the details of rows in the "emp" table whose location is blank?

42. How is a database related to a table?

43. Is NULL and 0(zero) same? Justify your answer.

44. Write the purpose of setting AUTOCOMMIT=0;

45. Write the purpose of setting AUTOCOMMIT=1;

46. Ajay has applied a Constraint on a column(field) such that Ajay will certainly have to insert a value in this field, when he inserts a new row in the table. Which constraint has Ajay used?

47. While creating a table, when a column is declared with data type and size as: DECIMAL(20,6) , how many maximum number of digits may be present to the right of the decimal point? Which command in SQL is used to see the structure of the table?

48. Table student has the columns RNO and SCORE. It has 3 rows in it. Following two SQL statements were entered that produced the output (AVG(SCORE) as 45 and COUNT(SCORE) as 2):

a) AVG(SCORE)

b) COUNT(SCORE)

Data in SCORE column is same in two rows. What data is present in the SCORE column in the three rows?

49. Give the terms for each of the following:

a) Collection of logically related records.

b) DBMS creates a file that contains description about the data stored in the database.

c) Attribute that can uniquely identify the tuples in a relation.

d) Special value that is stored when actual data value is unknown for an attribute.

e) An attribute which can uniquely identify tuples of the table but is not defined as primary key of the table.

f) Software that is used to create, manipulate and maintain a relational database.

50. Why foreign keys are allowed to have NULL values? Explain with an example.

51. Compared to a file system, how does a database management system avoid redundancy in data through a database?

52. What are the limitations of file system that can be overcome by a relational DBMS?

53. A school has a rule that each student must participate in a sports activity. So each one should give only one preference for sports activity. Suppose there are five students in a class, each having a unique roll number. The class representative has prepared a list of sports preferences as shown below. Answer the following:

Table: Sports Preferences

Rollno	Preference
9	Cricket
13	Football
17	Badminton
17	Football
21	Hockey
24	NULL
NULL	Kabaddi

a) Roll no 24 may not be interested in sports. Can a NULL value be assigned to that student's preference field?

b) Roll no 17 has given two preferences sports. Which property of relational DBMC is violated here? Can we use any constraint or key in the relational DBMS to check against such violation, if any?

c) Kabaddi was not chosen by any student. Is it possible to have this tuple in the Sports Preferences relation?

54. In another class having 2 sections, the two respective class representatives have prepared 2 separate Sports Preferences tables, as shown below:

Sports preference of section 1 (arranged on roll number column)

Table: Sports Preferences

Rollno	Sports
9	Cricket
13	Football
17	Badminton
21	Hockey
24	Cricket

Sports preference of section 2 (arranged on Sports name column, and column order is also different)

Table: Sports Preferences

Sports	Rollno
Badminton	17
Cricket	9
Cricket	24
Football	13
Hockey	21

Are the states of both the relations equivalent? Justify.

55. The school canteen wants to maintain records of items available in the school canteen and generate bills when students purchase any item from the canteen. The school wants to create a canteen database to keep track of items in the canteen and the items purchased by students. Design a database by answering the following questions:

a) To store each item name along with its price, what relation should be used? Decide appropriate attribute names along with their data type. Each item and its price should be stored only once. What restriction should be used while defining the relation?

b) In order to generate bill, we should know the quantity of an item purchased. Should this information be in a new relation or a part of the previous relation? If a new relation is required, decide appropriate name and data type for attributes. Also, identify appropriate primary key and foreign key so that the following two restrictions are satisfied:

i) The same bill cannot be generated for different orders.

ii) Bill can be generated only for available items in the canteen.

c) The school wants to find out how many calories students' intake when they order an item. In which relation should the attribute 'calories' be stored?

56. An organisation wants to create a database EMPDEPENDENT to maintain following details about its employees and their dependent.

EMPLOYEE(AadharNumber, Name, Address, Department,EmployeeID)
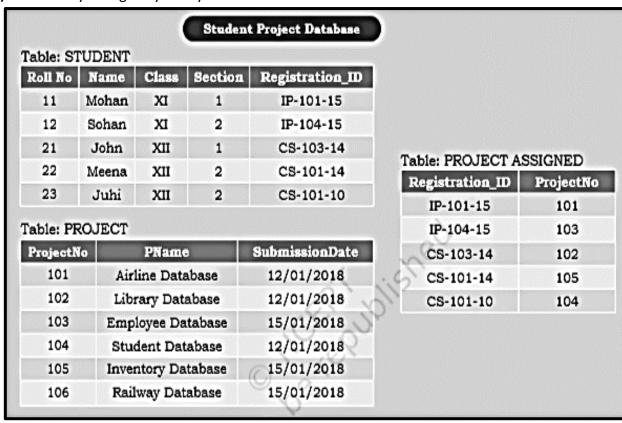
DEPENDENT(EmployeeID, DependentName, Relationship)

a) Name the attributes of EMPLOYEE, which can be used as candidate keys.

b) The company wants to retrieve details of dependent of a particular employee. Name the tables and the key which are required to retrieve this detail.

c) What is the degree of EMPLOYEE and DEPENDENT relation?

57. School uniform is available at M/s Sheetal Private Limited. They have maintained SCHOOL_UNIFORM Database with two relations viz. UNIFORM and COST. The following figure shows database schema and its state.

School Uniform Database

Attributes and Constraints

Table: UNIFORM

Attribute	UCode	UName	UColor
Constraints	Primary Key	Not Null	-

Table: COST

Attribute	UCode	Size	Price
Constraints	Composite Primary Key		>0

Table: UNIFORM

UCode	UName	UColor
1	Shirt	White
2	Pant	Grey
3	Skirt	Grey
4	Tie	Blue
5	Socks	Blue
6	Belt	Blue

Table:

UCode	Size	COST Price
1	M	500
1	L	580
1	XL	620
2	M	810
2	L	890
2	XL	940
3	M	770
3	L	830
3	XL	910
4	S	150
4	L	170
5	S	180
5	L	210
6	M	110
6	L	140
6	XL	160

a) Can they insert the following tuples to the UNIFORM Relation? Give reasons in support of your answer.

i) 7, Handkerchief, NULL   **ii)** 4, Ribbon, Red   **iii)** 8, NULL, White

b) Can they insert the following tuples to the COST Relation? Give reasons in support of your answer.

i) 7, S, 0   **ii)** 9, XL, 100

58. In a multiplex, movies are screened in different auditoriums. One movie can be shown in more than one auditorium. In order to maintain the record of movies, the multiplex maintains a relational database consisting of two relations viz. MOVIE and AUDI respectively as shown below: Movie(Movie_ID, MovieName, ReleaseDate) Audi(AudiNo, Movie_ID, Seats, ScreenType, TicketPrice)

a) Is it correct to assign Movie_ID as the primary key in the MOVIE relation? If no, then suggest an appropriate primary key.

b) Is it correct to assign AudiNo as the primary key in the AUDI relation? If no, then suggest appropriate primary key.

c) Is there any foreign key in any of these relations?

Student Project Database

Table: STUDENT

Roll No	Name	Class	Section	Registration_ID
11	Mohan	XI	1	IP-101-15
12	Sohan	XI	2	IP-104-15
21	John	XII	1	CS-103-14
22	Meena	XII	2	CS-101-14
23	Juhi	XII	2	CS-101-10

Table: PROJECT ASSIGNED

Registration_ID	ProjectNo
IP-101-15	101
IP-104-15	103
CS-103-14	102
CS-101-14	105
CS-101-10	104

Table: PROJECT

ProjectNo	PName	SubmissionDate
101	Airline Database	12/01/2018
102	Library Database	12/01/2018
103	Employee Database	15/01/2018
104	Student Database	12/01/2018
105	Inventory Database	15/01/2018
106	Railway Database	15/01/2018

59. For the above given database STUDENT-PROJECT, answer the following:
   a) Name primary key of each table.
   b) Find foreign key(s) in table PROJECT-ASSIGNED.
   c) Is there any alternate key in table STUDENT? Give justification for your answer.
   d) Can a user assign duplicate value to the field RollNo of STUDENT table? Jusify.
60. For the above given database STUDENT-PROJECT, can we perform the following operations?
   a) Insert a student record with missing roll number value.
   b) Insert a student record with missing registration number value.
   c) Insert a project detail without submission-date.
   d) Insert a record with registration ID IP-101-19 and ProjectNo 206 in table PROJECT-ASSIGNED.

Consider the following table.

Table:Train

TrainId	TName	Source	Destination	Fare
3402	Century Express	New Delhi	Mumbai	1000
4023	Superfast Express	Kanyakumari	Chandigarh	800
3424	Lucknow Mail	Lucknow	New Delhi	500
6542	Capital Express	Chennai	Kolkata	800
9876	Punjab Mail	Patna	Ludhiana	700
5400	Century Express	New Delhi	Kanpur	800

Write the output for the following SELECT statements:

i.   SET AUTOCOMMIT=0;
        INSERT INTO TRAIN VALUES (5608,'KANPUR EXPRESS','NEW DELHI','KANPUR',700);
        SAVEPOINT A;
        UPDATE TRAIN SET FARE=900 WHERE FARE=800;
        SAVEPOINT B;
        DELETE FROM TRAIN WHERE TRAINID=9876;
        SAVEPOINT C;
        SELECT * FROM TRAIN;
        ROLLBACK TO SAVEPOINT B;
        SELECT * FROM TRAIN;

ii.   Table 'employees' has the following data

empid	lastname	salary
101	Sharma	50000
102	Arora	25000

        Write the output of the following SQL statements:
        SET AUTOCOMMIT = 0;
        UPDATE employees   SET salary = 70000   WHERE lastname = 'Sharma';
        SAVEPOINT Sh;
        UPDATE employees   SET salary = 30000   WHERE lastname = 'Arora';
        SAVEPOINT Ar;
        SELECT SUM (salary) FROM employees;
        ROLLBACK TO SAVEPOINT Sh;
        SELECT SUM (salary) FROM employees;

iii.   START TRANSACTION;
        INSERT INTO TRAIN VALUES (5801,'SHATABADI EXPRESS','NEW DELHI','AMRITSAR',1200);
        UPDATE TRAIN SET FARE = 600 WHERE TNAME LIKE '%LUCKNOW%';
        SAVEPOINT A1;
        DELETE FROM TRAIN WHERE TRAINID=3402;
        SAVEPOINT B1;
        ROLLBACK TO A1;
        SELECT * FROM TRAIN;