**SET 1**

DEPARTMENT (dept\_no, dept\_name, location)

1. Create the Simple DEPARTMENT Table.
2. Display structure of department table.
3. Insert below records into Department Table

|  |  |  |
| --- | --- | --- |
| Dept\_no | Dept\_name | Location |
| 10 | Account | NY |
| 20 | HR | NY |
| 30 | Production | DL |
| 40 | Sales | NY |
| 50 | EDP | MU |
| 60 | TRG |  |
| 110 | RND | AH |

1. Display all records of Department table
2. Display all department belonging to location 'NY'
3. Display details of Department 10
4. List all department names starting with 'A'
5. List all departments whose number is between 1 and 100
6. Delete 'TRG' department
7. Change department name 'EDP' to 'IT

# SET 2

EMPLOYEE (emp\_id, emp\_name, birth\_date, gender, dept\_no, address, designation, salary, join\_date, email)

DEPARTMENT (dept\_no, dept\_name, location)

# Do as directed:

1. Create the EMP Table with all necessary constraints such as

In EMP TABLE: Employee id should be primary key, Department no should be Foreign key, employee age (birth\_date) should be greater than 18 years, salary should be greater than zero, email should have (@ and dot) sign in address,

designation of employee can be “manager”, “clerk”, “leader”, “analyst”, “designer”, “coder”, “tester”.

1. Create DEPT table with neccessary constraint such as
2. Department no should be primary key, department name should be unique.
3. After creation of above tables, modify Employee table by adding the constraints as
4. ‘Male’ or ‘Female’ in gender field and display the structure.
5. Insert proper data (at least 5 appropriate records) in all the tables.
6. Describe the structure of table created
7. List all records of each table in ascending order.
8. Delete the department whose loction is Ahmedabad.
9. Display female employee list
10. Display Department name wise employee Names
11. Find the names of the employee who has salary less than 5000 and greater than 2000.
12. Display the names and the designation of all female employees in descending order.
13. Display the names of all the employees whose names start with ‘A’ ends with ‘A’.
14. Find the name of employee and salary for those who had obtained minimum salary.
15. Add 10% raise in salary of all employees whose department is ‘IT’.
16. Count total number of employees of ‘IT’ department.
17. List all employees who born in the current month.
18. Print the record of employee and dept table as “Employee works in department ‘MBA’.
19. List names of employees who are fresher’s (less than 1 year of experience).
20. List department wise names of employees who has more than 5 years of experience.
21. Create Sequence to generate department ID
22. List department having no employees

# SET 3

**STUDENT (rollno, name, class, birthdate)**

# COURSE (courseno, coursename, max\_marks, pass\_marks) SC (rollno, courseno, marks)

1. Create the above three tables along with key constraints.
2. Write an Insert script for insertion of rows with substitution variables and insert appropriate data.
3. Add a constraint that the marks entered should strictly be between 0 and 100.
4. While creating SC table, composite key constraint was forgotten. Add the composite key now.
5. Display details of student who takes ‘Database Management System’ course.
6. Display the names of students who have scored more than 70% in Computer Networks and have not failed in any subject.
7. Display the average marks obtained by each student.
8. Select all courses where passing marks are more than 30% of average maximum mark.
9. Display details of students who are born in 1980 or 1982.
10. Create a view that displays student courseno and its corresponding marks.

# SET 4

Create the database COMPANY and create given tables with all necessary constraints such as primary key, foreign key, unique key, not null and check constraints.

EMPLOYEE (emp\_id, emp\_name, birth\_date, gender, dept\_no, address, designation, salary, experience, email)

DEPART (dept\_no, dept\_name, total\_employees, location) PROJECT (proj\_id, type\_of\_project, status, start\_date, emp\_id)

Insert proper data (at least 5 appropriate records) in all the tables.

# Do as directed:

1. Delete the department whose total number of employees less than 1.
2. Display the names and the designation of all female employees in descending order.
3. Display the names of all the employees whose names start with ‘A’ ends with ‘A’.
4. Find the name of employee and salary for those who had obtained minimum salary.
5. Add 10% rise in salary of all employees whose department is ‘CIVIL’.
6. Count total number of employees of ‘MCA’ department.
7. List all employees who born in the current month.
8. Print the record of employee and dept table as “Employee works in department ‘CE’.
9. List names of employees who are fresher’s(less than 1 year of experience).
10. List department wise names of employees who has more than 5 years of experience.

# SET 7

Create the database SHOPPING and create given tables with all necessary constraints such as primary key, foreign key, unique key, not null and check constraints.

CUSTOMER (cno, cust\_name, cust\_phone, location,gender)

ITEM (itemno, itemname, color, weight, expire\_date, price, shop\_name) CUST\_ITEM (cno, itemno, quantity\_purchased, date\_purchase)

Insert proper data (at least 5 appropriate records) in all the tables.

# Do as directed:

1. Delete the items whose price is more than 50000. .
2. Find the names of the customer who is located in same location as that of other customer.
3. Display the names of items which is black, white & brown in color.
4. Display the names of all the items whose names lies between ‘p’ and‘s’.
5. Find the item which is having less weight.
6. Add one month more to those items whose item no =40.
7. Count total number of items which is going to expire in next month
8. List all customers whose phone number starts with ‘99’.
9. Display total value (qty\*price) for all items.
10. List customer details who has purchased maximum number of items
11. Display total price item wise.
12. List name of items, customer details and qty purchased.

# SET 8

Create the database THEATRE and create given tables with all necessary constraints such as primary key, foreign key, unique key, not null and check constraints.

# SCREEN (SCREEN\_ID, LOCATION, SEATING\_CAP) MOVIE (MOVIE\_ID, MOVIE\_NAME, DATE\_OF\_RELEASE)

**CURRENT (SCREEN\_ID, MOVIE\_ID, DATE\_OF\_ARRIVAL, DATE\_OF\_CLOSURE)**

# Check Constraints:

Value of screen\_id must start with letters ‘S’.

Attribute location can be any one of ‘FF’, ‘SF’, or ‘TF’.

# Do as directed:

1. Get the name of movie which has run the longest in the multiplex so far.
2. Get the average duration of a movie on screen number ‘S4’.
3. Get the details of movie that closed on date 24-november-2004.
4. Movie ‘star wars III ‘was released in the 7th week of 2005.
5. Find out the date of its release considering that a movie releases only on Friday.
6. Get the full outer join of the relations screen and current.

# SET 11

Create the database TRAIN TRANSPORT and create given tables with all necessary constraints such as primary key, foreign key, unique key, not null and check constraints.

# TRAIN \_MASTER:

|  |  |  |
| --- | --- | --- |
| **FIELD NAME** | **DATA TYPE** | **CONSTRAINTS** |
| TRAIN NUMBER | VARCHAR2(6) | PRIMARY KEY AND LAST TWO CHARS  SHOULD BE 'DN' OR 'UP' |
| TRAIN NAME | VARCHAR2(25) | NOT NULL |
| ARRIVAL TIME | DATE | NOT NULL |
| DEPARTURE TIME | DATE | NOT NULL |
| NO OF HOURS | NUMBER(5,2) | NOT NULL |
| SOURCE STATION | VARCHAR2(25) | NOT NULL |
| END STATION | VHARCHAR2(25) | NOT NULL |

**PASSENGER\_DETAILS:**

|  |  |  |
| --- | --- | --- |
| **FIELD NAME** | **DATA TYPE** | **CONSTRAINTS** |
| TICKET NUMBER | NUMBER(5) |  |
| TRAIN NUMBER | VARCHAR2(6) | FOREIGN KEY REFERENCE TO TRAIN\_MASTER  THIS RELATED RECORD SHOULD BE DELETED  IF MASTER RECORD IS DELETED. |
| SEAT NUMBER | NUMBER(2) | NOT NULL |
| PASSENGER NAME | VARCHAR2(35) | NOT NULL |
| AGE | NUMBER(2) | NOT NULL |
| GENDER | CHAR(1) | SHOULD BE 'M' FOR MALE OR 'F'  FOR FEMALE |
| TRAVEL DATE | DATE |  |
| CLASS | VARCHAR2(4) | SHOULD BE IN (IA, IIA, IIIA, IC,  II) |

*TRAIN\_SEAT\_MASTER:*

|  |  |  |
| --- | --- | --- |
| **FIELD NAME** | **DATA TYPE** | **CONSTRAINTS** |
| TRAIN NUMBER | VARCHAR2(6) | FOREIGN KEY REFERENCE TO TRAIN\_MASTER  THIS RELATED RECORD SHOULD BE DELETED  IF MASTER RECORD IS DELETED. |
| CLASS | VARCHAR2(4) | SHOULD BE IN (IA, IIA, IIIA, IC, II) |
| TOTAL SEATS | NUMBER(2) | SHOULD BE >= 25 AND <= 90 |

# TRAIN\_DAY\_MASTER:

|  |  |  |
| --- | --- | --- |
| **FIELD NAME** | **DATA TYPE** | **CONSTRAINTS** |
| TRAIN NUMBER | VARCHAR2(6) | FOREIGN KEY REFERENCE TO TRAIN\_MASTER  THIS RELATED RECORD SHOULD BE DELETED  IF MASTER RECORD IS DELETED. |
| DAY | VARCHAR2(3) | VALUE SHOULD BE IN 'MON' … TO …  'SUN' |

Do as directed:

1. Give all the train nanes starting from “Bombay” and going to “Ahmedabad” on Tuesday and Wednesday.
2. List all trains which is available on Sunday.
3. Give classwise seat availability on 10-June-2018 for train 9012DN.
4. List total seats classwise for train running on thrusday.
5. List train names which have no sleeper class.
6. List train number which run on Monday during 8:00: am to 1:00pm.

# SET 12

CUSTOMER(cid, fname, lname, city, country, phone) ORDER (oid, oDate, oNumber, cid, oTotalAmount)

1. List the number of customers in each country. Only include countries with more than 100 customers.
2. List the number of customers in each country, except China, sorted high to low. Only include countries with 5 or more customers.
3. List all customers with average orders between Rs.5000 and Rs.6500.

# SET 13

**DISTRIBUTOR (dno, dname, daddress, dphone) ITEM (itemno, itemname, colour, weight) DIST\_ITEM (dno, itemno, qty)**

1. Add a column CONTACT\_PERSON to the DISTRIBUTOR table with the not null constraint.
2. Create a view LONDON\_DIST on DIST\_ITEM which contains only those records where distributors are from London. Make sure that this condition is checked for every DML against this view.
3. Display the details of all those items that have never been supplied.
4. Delete all those items that have been supplied only once.
5. List the names of distributors who have an ‘A’ and also a ‘B’ somewhere in their names.
6. Count the number of items having the same colour but not having weight between 20 and 100.
7. Display all those distributors who have supplied more than 1000 parts of the same type.
8. Display the average weight of items of the same colour provided at least three items have That colour.
9. Display the position where a distributor name has an ‘OH’ in its spelling somewhere after the fourth character.
10. Count the number of distributors who have a phone connection and are supplying item number ‘I100’.
11. Create a view on the tables in such a way that the view contains the distributor name, item name and the quantity supplied.
12. List the name, address and phone number of distributors who have the same three digits in their number as ‘Mr. Talkative’.
13. List all distributor names who supply either item I1 or I7 or the quantity supplied is more than 100.
14. Display the data of the top three heaviest ITEMS.

Consider the DUAL and data dictionary tables/views to solve the following Queries.

* 1. Find out the names of all the tables, views and constraints associated with current tables in the system.
  2. Write a query to add 15 days to the current date.
  3. Write a query to Add and subtract 5 months from the current month.
  4. Find out the ASCII equivalent of character ‘M’.
  5. Find out the character equivalent of ASCII 67, 65 and 84.
  6. Write a query to find the last day of the month.
  7. Find out how many days are left in the current month.
  8. Write a query to calculate the Date difference between current date and 20/05/2015.
  9. Write a query to Calculate the number of months between current date and 03/03/2016.
  10. Find out the second occurrence of ‘or’ from third position in the string ‘corporate floor

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* 1. Find out log to the base 3 of 81.
  2. Convert the string ‘gujarat technological university’ so that first character of each work is in capital.
  3. Convert the string ‘jack and jue’ Into ‘black and blue’.
  4. Round off the date 27-July-2016 to the current year.
  5. Find out the user name and user id off currently logged on user.