# Department Of Information Technology

# Indian Institute Of Engineering Science and Technology-Shibpur

**DBMS LAB-IT552**

**YEAR 2019**

## Assignment 1

**Create the following tables:-**

**Table: cust**

| Attributes | Data Type | Size | Condition |
|---|---|---|---|
| Cust_id | Varchar2 | 3 | |
| Lname | Varchar2 | 15 | |
| Fname | Varchar2 | 15 | |
| Area | Varchar2 | 2 | |
| Phone_no | number | 8 | |

**Table: movie**

| Attributes | Data Type | Size | Condition |
|---|---|---|---|
| Mv_no | number | 2 | |
| Title | Varchar2 | 25 | |
| Type | Varchar2 | 10 | |
| Star | Varchar2 | 25 | |
| Price | number | 8,2 | |

**Table: invoice**

| Attributes | Data Type | Size | Condition |
|---|---|---|---|
| **Inv_no** | **Varchar2** | **3** | |
| **Mv_no** | **number** | **2** | |
| **Cust_id** | **Varchar2** | **3** | |
| **Issue_date** | **date** | | |
| **Return_date** | **date** | | |

**Single table Retrieval:-**

1. Find out the names of all the customers.
2. List the various movie types available from the movie table.
3. Print the list of all employees whose phone numbers are greater than the value 5550000.
4. Find the movies of type ‘action’ or ‘comedy’.
5. Find the movies whose price is greater than 150 and less than or equal to 200.
6. Find the names of all customers having ‘a’ as the second letter in their fnames.
7. Find the lname of all customers that begins with ‘s’ or ‘j’.
8. Find out the customers who stay in an area whose second letter is ‘a’.
9. Find the list of all customers who stay in area ‘da’ or area ‘mu’ or area ’gh’.
10. List the mv_no , title, type of movies whose stars begin with letter ‘m’.
11. Find the movies that cost more than 150 and also find the new cost as original cost * 15.
12. List the movies in stored order of their titles.
13. Print the names and types of all the movies except horror movies.
14. Divide the cost of movie ‘home alone’ by difference between its price and 100.
15. List the names, areas, and cust_id of customers without phone numbers.
16. List the names of customers without lname.
17. Print the information from invoice table of customers who have been issued movies in the month of September.

**Set Function and Concatenation:-**

18. Count the total no. of customers.
19. Calculate the total price of all movies.
20. Calculate the average price of all movies.
21. Calculate the maximum and minimum movie prices. Rename the title as max_price and min_price respectively
22. Count the number of movies having price greater than or equal to 150.
23. Print the information of invoice table in the following format for all records.

A) The Invoice no. of Customer Id {cust_id} is {inv_no} and Movie no. is {mv_no}.
B) {cust_id} has taken Movie no. {mv_no} on {issue_date} and will return on {return_date}

**Having and Group By:-**

**24.** Print the type and average price of each movie.
**25.** Find the number of movies in each type.
**26.** Count separately the number movies in the 'comedy' and 'thriller' types.
**27.** Calculate the average price for each type that has a maximum price of Rs. 150.
**28.** Calculate the average price of all movies where type is 'comedy' or 'thriller' and price is greater than or equal to Rs. 150.

**Joins and Correlations:-**

**29.** Find out the movie number which has been issued to 'Ivan'.
**30.** Find the names and movie numbers of all the customers who have been issued a movie .
**31.** Select the title ,cust_id, mv_no for all the movies that are issued.
**32.** Find out the title and types of the movies that have been issued to 'Vandana'.
**33.** Find the names of customers who have been issued movie of type 'drama'.
**34.** Display the title, lname, fname for customers having movie number greater than or equal to three , in the following format:
'The movie taken by {fname} {lname} is {title}.

**Nested Queries**:-

**35.** Find out which customers have been issued movie number 9.
**36.** Find the customer name and area with invoice number'i10'.
**37.** Find the name of the movie issued to 'Vandana' or 'Ivan'.
**38.** Find the type and movie number of movie issued to cust_id 'a01' or 'a02'.
**39.** Find out if the movie starring 'tom cruise' is issued to any customer and print the cust_id to whom it is issued.
**40.** Find the customer names and phone numbers who have been issued movies before the month of August.
**41.** List the movie number, movie issued to all customers.

**Queries using date:-**

**42.** Display the invoice number and day on which customers were issued movies.

**43.** Display the month (in alphabets) in which customers are supposed to return the movies.

**44.** Display the issue_date in the format "dd-month-yy" e.g. 12-February- 93

**45.** Find the date, 15 days after the current date.

**46.** Find the number of days elapsed between the current date and the return date of the movie for all customers.

**Table Updations**:-

**47.** Change the telephone number of 'Pramada' to 466389.

**48.** Change the issue_date of cust_id 'a01' to 24/07/93.

**49.** Delete the record with invoice number 'i08'from the invoice table.

**50.** Delete all the records having return date before 10th July 93.

**51.** Change the return date of invoice number 'i08' to 16-08-93.