**Assignment-DBT3**

March22/ DBT/ 003

Database Technologies

Diploma in Advance Computing

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**Relation and Relationship**

1. **Consider the following entities & relationships (Note: Only Indian Passport.)**

Person (ID, name, DOB, gender, nationality)

PassportDetails (ID, passportNumber, issueDate, expireDate)

The relation between Person and PassportDetaile is ***one-to-one***.

Constraints: *Primary Key*  
passportNumber must not be null.

1. **Consider the following entities & relationships**

Company (cid, cname, cproduct, state)

Branches (bno, city)

The relation between Company and Branches ***one to many****.*

Constraint: *Primary Key*

Customer name should *not be null*.

Enter the following data in the tables.

Table: *Company*

|  |  |  |  |
| --- | --- | --- | --- |
| CID | CNAME | CPRODUCT | STATE |
| 11 | Samsung | Mobile | Karnataka |
| 12 | Micro Tech | Keyboard | Maharashtra |
| 13 | Lenovo | Monitor | Kerala |
| 14 | Compaq | Laptop | Karnataka |
| 15 | Logitech | Keyboard | Gujarat |
| 16 | Microsoft | Mouse | Gujarat |
| 17 | Microsoft | Keyboard | Gujarat |

Table: *Branches*

|  |  |  |
| --- | --- | --- |
| BNO | CID | CITY |
| 90 | 12 | Pune |
| 91 | 11 | Bangalore |
| 92 | 11 | Hubli |
| 93 | 14 | Bangalore |
| 94 | 13 | Kochi |
| 95 | 12 | Mumbai |
| 96 | 14 | Mysore |
| 97 | 15 | Baroda |
| 98 | 11 | Mysore |

**Solved the Following SQL Queries:**

* List the product names of company `Micro Tech`.

select cproduct from company1 where cname="Microtech";

* List all the companies of product keyboard.
* List all the branches along with city of company `Lenovo`.
* List all the branches whose city name starts with a letter `C`.
* List all the first letter of CNAME column from company table.
* List all the CNAME column from company table, whose 2nd letter of CPRODUCT column is `o`.
* Count the number of branches of company `Compaq`

1. **Consider the following entities & relationships**

Movie (mvno, mvname, releaseyear)

Actor (actno, actname)

Relationship between Movie and Actor is *many-to-one*.

Constraints: *Primary key,*

Releaseyear should be *more than 0*.

**Solve the following SQL Queries:-**

* Insert 15 records in MOVIE relation.
* Insert 15 records in ACTOR relation.
* Display all the movies released after year 2000.
* Count the number of movies in which ‘Hritik’ has acted.
* Display all the movies names order by released year in ascending order.
* Display movie names released between years 2000 to 2008.

1. **Consider the following entities & relationships**

Movie (mvno, mvname, releaseyear)

Team (Memberno, Membername, MemberType)

The relation between Movie & Team is many-to-many.

Constraints: *Primary Key*  
Releaseyear should be *more than 0*.

Member Type e.g. (Producer, Actor, etc.) Create tables & construct queries in Mysql.

* Count the number of movies in which Shaharukh has acted.
* Display the movie details having more than 5 actors.
* Find all movies of Amitabh that are released between the years 1975 and 1985 and starting with letter `S`.
* List actor wise list of movies along with release year & movie name.
* Display Producer and no of Movie did by this producer.

1. **Consider the Insurance Database given below.**

The primary keys are shown in bold, Italic, and the data types are also specified.

PERSON (***driver\_id#***: string, name: string, address: string)

CAR (***regno***: string, model: string, year: int)

ACCIDENT (***report\_number***: int, acc\_date: date, location: string)

OWNS (***driver\_id#***: string, ***regno***: string)

PARTICIPATED (***driver\_id#***: string, ***regno***: string, ***report\_number***: int, damage amount: number (10, 2))

* Create the above tables by properly specified the primary key and the foreign key.
* Enter at least five tuples for each relation.
* Add a new accident to the database.
* Find the total number of people who owned cars that were involved in accident in2002.
* Find the number of accident in which cars belonging to a specific models were involved.