**LAB ASSIGNMENT RECORD**

**On**

**(BCA 454)**

**Database Mangement System Lab**



**COLLEGE OF COMPUTING SCIENCES AND INFORMATION TECHNOLOGY**

**TMU, MORADABAD**

**Session 2023-2024**

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**LAB ASSIGMENT NAME** –**Basic SQL Queries**

**LAB ASSIGMENT NO. –1**

**Assignment 1 is based on the following Table:**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **FIRST** | **LAST** | **ID** | **AGE** | **CITY** | **STATE** |
| John | Jones | 99980 | 45 | Payson | Arizona |
| Mary | Jones | 99982 | 25 | Payson | Arizona |
| Eric | Edwards | 88232 | 32 | San Diego | California |
| Mary Ann | Edwards | 88233 | 32 | Phonix | Arizona |
| Ginger | Howell | 98002 | 42 | Cottonwood | Arizona |
| Sebastian | Smith | 92001 | 23 | Gila Bend | Arizona |
| Gus | Gray | 22322 | 35 | Bagdad | Arizona |
| Mary Ann | May | 32326 | 52 | Tucson | Arizona |
| Erica | William | 32327 | 60 | Show | Low Arizona |
| Leoroy | Brown | 32380 | 22 | Pinetop | Arizona |
| Elroy | Cleaver | 32382 | 22 | Globe | Arizona |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **S.NO** | **PROGRAM NAME** | **PAGE NO** | **DATE** | **SIGN** | **REMARK** |
| 1 | Create the table EMPINFO with ID as a Primary key constraint. |  |  |  |  |
| 2 | Insert all the above mentioned values in table. |  |  |  |  |
| 3 | Select all the first name ,last name & city from the table whose names starts with 'Er' |  |  |  |  |
| 4 | Select first name & last name from the table whose last names ends with 's' |  |  |  |  |
| 5 | Select all the details from the table whose first name equals 'Eric' exactly |  |  |  |  |
| 6 | Select all the details of the table EMPINFO. |  |  |  |  |
| 7 | Display the first name & age for everyone that is in the table |  |  |  |  |
| 8 | Display the first name, last name & city for everyone that is not from 'Payson' |  |  |  |  |
| 9 | Display all columns for everyone that is over 40 years old |  |  |  |  |
| 10 | Display the first & last names for everyone whose last name ends in an 'ay' |  |  |  |  |
| 11 | Display all columns for everyone whose first name equals 'Mary' |  |  |  |  |
| 12 | Display all the columns for everyone whose first name contains 'Mar' |  |  |  |  |
| 13 | Select first name , last name & age from the table where last name contains 'illia' |  |  |  |  |
| 14 | Select the first name , last name , city & state whose first name starts with 'J' |  |  |  |  |
| 15 | Display the last name and city of employees who belongs to Arizona and whose age is greater than 25 |  |  |  |  |
| 16 | Display the details of employees with id 32382, 32326 and 99980. |  |  |  |  |
| 17 | Count the number of employees who work in Tucson and Payson |  |  |  |  |
| 18 | Display the first name and last name in a single column |  |  |  |  |
| 19 | Display the record like : “Hello John welcome to Payson City” where name and city has to be fetch from table for all the employees |  |  |  |  |
| 20 | Display the details of employees whose first name and last name starts with the same character |  |  |  |  |

**Customer Table**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Cus\_ID** | **Cus\_Name** | **Ref\_ID** | **Prod\_ID** | **Date\_of\_Purchase** | **Price** | **Discount** |
| 1359 | Elina Taylor | 1608 | 20 | 05-Oct-2006 | 1000 |  |
| 1573 | Mark Lyon | 1175 | 40 | 07-Sep-2008 | 1550 | 110 |
| 1932 | Stuart Twain | 1608 | 60 | 23-Aug-2009 | 3000 | 230 |
| 1875 | Allan Samuels | 1610 | 80 | 15-Nov-2011 | 10000 | 970 |
| 1723 | Peter Russel |  | 40 | 17-July-2010 | 4000 | 250 |
| 1973 | Andre Finch | 1932 | 60 | 12-Mar-2014 | 6000 | 530 |
| 1205 | Steffi Nicolus | 1175 | 20 | 07-Feb-2012 | 1500 |  |
| 1608 | Adams Franklin |  | 80 | 05-Jan-2010 | 8000 | 509 |
| 1175 | Luke Martin | 1932 | 60 | 14-Dec-2007 | 3500 | 300 |
| 1097 | Joseph Milne | 1610 | 40 | 07-Apr-2007 | 1200 | 80 |
| 1850 | Mary Roberts | 1875 | 20 | 12-Sep-2008 | 1170 |  |
| 1610 | Sheldon Moris | 1175 | 80 | 08-May-2009 | 11050 | 915 |

**Product Table**

|  |  |
| --- | --- |
| **Prod\_ID** | **Prod\_Category** |
| 20 | Cosmetics |
| 40 | Daily Needs |
| 60 | Garments |
| 80 | Equipment |

**LAB ASSIGMENT NAME** – **SQL Queries with Aggregate Functions and Clauses**

**LAB ASSIGMENT NO. –2**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **S.NO.** | **PROGRAM NAME** | **PAGE NO** | **DATE** | **SIGN** | **REMARK** |
| **1** | Create the Table **Customer** Cus\_ID as Primary key |  |  |  |  |
| **2** | Insert the given records into the table |  |  |  |  |
| **3** | Select top 3 Customer ID from the sorted table |  |  |  |  |
| **4** | Change Customer name into uppercase. |  |  |  |  |
| **5** | List customer name who purchases the product ID 80. |  |  |  |  |
| **6** | Alter Customer table to set the default value of customer name as ABC |  |  |  |  |
| **7** | List First Customer ID whose price is less than 2000 |  |  |  |  |
| **8** | List the Customers belonging to the Product ID 20. |  |  |  |  |
| **9** | List the ID and name of the customers whose Product Price is more than 4000 |  |  |  |  |
| **10** | List the Customer ID & ID of Reference Person. |  |  |  |  |
| **11** | List the records in the Ascending Order of Customer Name |  |  |  |  |
| **12** | List the Name of the Customers who purchase their products before 5-Jul-2009 |  |  |  |  |
| **13** | List the name of Customers who does not refer any person. |  |  |  |  |
| **14** | List the different Products ID available in the Customer table. |  |  |  |  |
| **15** | List the customer names who are not eligible for discount. |  |  |  |  |
| **16** | List the ID of the Customers having "a" as second character of their name |  |  |  |  |
| **17** | List the Customer name, Product Price & Product ID in ascending order of Product ID & then on descending order of Price |  |  |  |  |
| **18** | Count the no. of different Products available in the Customer table |  |  |  |  |
| **19** | List the total Price paid by the Customers |  |  |  |  |
| **20** | List the maximum Price of products categorize as Equipment |  |  |  |  |
| **21** | List the minimum price of products in Customer table |  |  |  |  |
| **22** | List the average price and the no. of customers purchasing product having ID as 60 |  |  |  |  |
| **23** | List the average price from each job excluding Cosmetics |  |  |  |  |
| **24** | List total price, maximum & minimum price and the average price for product Id 20 and 80. |  |  |  |  |
| **25** | List the average price for each product within each product category. |  |  |  |  |
| **26** | Update the discount of Mark Lyon from 110 to 100 |  |  |  |  |
| **27** | Delete the record of Luke Martin. |  |  |  |  |
| **28** | Change the data type size of cus\_name |  |  |  |  |
| **29** | Create a copy of Customer Table as NewCustomer |  |  |  |  |
| **30** | Remove the NewCustomer Table while maintaining its structure |  |  |  |  |
| **31** | Remove the NewCustomer table completely from the disk. |  |  |  |  |

**LAB Assignment Name-SQL Queries with Join Operations**

**LAB Assignment No.-3**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **S.NO.** | **PROGRAM NAME** | **PAGE NO.** | **DATE** | **SIGN** | **REMARK** |
| 1 | Display product ID and no. of customers for each Product ID |  |  |  |  |
| 2 | Display Customer ID, Customer Name and their respective Product Category |  |  |  |  |
| 3 | Display Customer name, Product Category, Price and Discount for those whose Price lie in between 5000 and 10000 |  |  |  |  |
| 4 | Display the id and name of all those customers who give the reference of at least one Customer. |  |  |  |  |
| 5 | List the Customer Name and their respective reference name. |  |  |  |  |
| 6 | Display Customer Name and Product Category even if customers don’t purchase a particular product category. |  |  |  |  |
| 7 | List all customers who purchase their product before their reference person. |  |  |  |  |
| 8 | List all customers who purchase their product after their reference person. |  |  |  |  |
| 9 | List the Customer Names whose Price is greater than the lowest price of Product ID 60. |  |  |  |  |
| 10 | Display Customer Name and their product price whose Product Price is greater than highest average of Product Category. |  |  |  |  |
| 11 | List all those Customers whose product price is greater than the Product Price of their Reference Person. |  |  |  |  |
| 12 | Display the Product Category along with total discount given for each category. |  |  |  |  |
| 13 | Display those customers whose product price is less than the average of minimum and maximum price out of all categories. |  |  |  |  |
| 14 | Display 3 least product prices and their ID. |  |  |  |  |
| 15 | Count total reference persons who give their reference to customers. |  |  |  |  |

**Lab Assignment-Table with Constraints**

**Lab Assignment No-4**

**The assignment is based in context to the relations given below. Create the following table as per given constraints.**

1. **Table:- CLIENT\_MASTER**

|  |  |  |  |
| --- | --- | --- | --- |
| **Column Name** | **Data type** | **Size** | **Attribute Constraints** |
| CLIENTNO | VARCHAR2 | 6 | Primary Key/ First Latter must start with ‘C’ |
| NAME | VARCHAR2 | 20 | NOTNULL |
| ADDRESS1 | VARCHAR2 | 30 |  |
| ADDRESS2 | VARCHAR2 | 30 |  |
| CITY | VARCHAR2 | 15 |  |
| PINCODE | NUMBER | 8 |  |
| STATE | VARCHAR2 | 15 |  |

1. **Table: - PRODUCT\_MASTER**

|  |  |  |  |
| --- | --- | --- | --- |
| **Column Name** | **Data type** | **Size** | **Attribute Constraints** |
| PRODUCTNO | VARCHAR2 | 6 | Primary Key/ First Latter must start with ‘P’ |
| DESCRIPTION | VARCHAR2 | 15 | NOTNULL |
| PROFITPERCENT | NUMBER | 4,2 | NOTNULL |
| UNITMEASURE | VARCHAR2 | 10 | NOTNULL |
| QTYONHAND | NUMBER | 8 | NOTNULL |
| REORDERLVL | NUMBER | 8 | NOTNULL |
| SELLPRICE | NUMBER | 8,2 | NOTNULL, Cannot be 0 |
| COSTPRICE | NUMBER | 8,2 | NOTNULL, Cannot be 0 |

1. **Table: - SALESMAN\_MASTER**

|  |  |  |  |
| --- | --- | --- | --- |
| **Column Name** | **Data type** | **Size** | **Attribute Constraints** |
| SALESMANNO | VARCHAR2 | 6 | Primary Key/ First Latter must start with ‘S’ |
| SALESMANNAME | VARCHAR2 | 20 | NOTNULL |
| ADDRESS1 | VARCHAR2 | 30 | NOTNULL |
| ADDRESS2 | VARCHAR2 | 30 |  |
| CITY | VARCHAR2 | 20 |  |
| PINCODE | NUMBER | 8 |  |
| STATE | VARCHAR2 | 8,2 |  |
| SALAMT | NUMBER | 8,2 | NOTNULL, Cannot be 0 |
| TGTTOGET | NUMBER | 6,2 | NOTNULL, Cannot be 0 |
| YTDSALES | NUMBER | 6,2 | NOTNULL |
| REMARKS | VARCHAR2 | 60 |  |

1. **Table: - SALES\_ORDER**

|  |  |  |  |
| --- | --- | --- | --- |
| **Column Name** | **Data type** | **Size** | **Attribute Constraints** |
| ORDERNO | VARCHAR2 | 6 | Primary Key/ First Latter must start with ‘O’ |
| CLIENTNO | VARCHAR2 | 6 | Foreign key references ClientNo of Client\_Master table |
| ORDERDATE | DATE |  | NOTNULL |
| DELYADDRESS | VARCHAR2 | 25 |  |
| SALESMANNO | VARCHAR2 | 6 | Foreign key references SalesmanNo of Salesman\_Master table |
| DELTYPE | CHAR | 1 | Delivery:- Part(P)/ Full(F) |
| BILLYN | CHAR | 1 |  |
| DELYDATE | DATE |  |  |
| ORDERSTATUS | VARCHAR2 | 10 | Values(‘In Process’, ’Fulfilled’, ’BackOrder’, ’Cancelled’) |