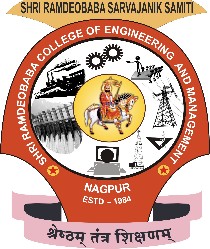
**Shri Ramdeobaba College of Engineering & Management Nagpur-13**

**Department of Computer Application**

**Session: 2023-2024**



**Submission for**

**Course Name:** Database Management Systems Lab

**Course Code:** MCP545

**Name of the Student:** Jayesh Lalit Nandanwar

**Class Roll No:** 26

**Semester:** MCA II semester

**Shift:** 2

**Batch:** 2

Under the Guidance of

Prof. Yoginee Pethe

Date of submission: 15/02/2024

**List of Experiments**

1. Implementation of DDL commands of SQL with suitable examples
   1. Create table b) Alter table c) Truncate table d) Drop table

Implementation of DML commands of SQL with suitable examples

1. Select b) Insert c) Update d) Delete
2. Study and implementation of different types of constraints.
3. Implementation of different types of operators in SQL

a)Arithmetic Operators b) Logical Operators

c) Comparison Operators d) Set Operators

1. Study and Implementation of
   1. Aggregate functions
   2. Group By & Having clause
   3. Order by clause
2. Study and Implementation of different types of joins like cross join, natural join, inner join, and outer joins.
3. Study and Implementation of Sub queries
4. Study and Implementation of views, and synonyms.
5. Study and Implementation of PL/SQL.

**Practical 3**

**Aim:** Study and implementation of different types of constraints.

Create the tables described below

**PRODUCT\_MASTER**

|  |  |  |  |
| --- | --- | --- | --- |
| **Column Name** | **Datatype** | **Size** | **Constraints** |
| Product\_No | Char | 6 | Primary Key |
| Description | Varchar2 | 15 | Not Null |
| ProfitPercent | Number | 4,2 | Not Null |
| UnitMeasure | Varchar2 | 10 | Not Null |
| SellPrice | Number | 8,2 | Not Null |
| CostPrice | Number | 8,2 | Not Null |

|  |  |
| --- | --- |
| SELLPRICE | Between 10000 to 80000 |
| COSTPRICE | >1000 |

**SALESMAN\_MASTER**

|  |  |  |  |
| --- | --- | --- | --- |
| **Column Name** | **Datatype** | **Size** | **Constraints** |
| **Salesman\_No** | Char | 6 | Primary Key |
| **SalesmanName** | Varchar2 | 20 | Not Null |
| **Address** | Varchar2 | 30 | Not Null |
| **City** | Varchar2 | 20 |  |
| **PinCode** | Number | 6 |  |
| **State** | Varchar2 | 20 |  |
| **SalAmt** | Number | 8,2 | Not Null |

|  |  |
| --- | --- |
| CITY | CAN’T BE NAGPUR |
| PINCODE | UNIQUE |

**Client\_Master**

|  |  |  |  |
| --- | --- | --- | --- |
| **Column Name** | **Datatype** | **Size** | **Constraints** |
| Client\_No | Char | 6 | Primary Key |
| Name | Varchar2 | 20 | Not Null |
| Address | Varchar2 | 100 |  |
| City | Varchar2 | 15 |  |
| Pincode | Number | 6 |  |
| State | Varchar2 | 20 |  |
| Bal\_Due | Number | 8,2 |  |

**Sales\_Order**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Column Name** | **Datatype** | **Size** | **Default** | **Constraints** |
| Order\_No | Char | 6 |  | Primary Key |
| Client\_No | Char | 6 |  | Foreign Key References Client\_No of Client\_Master Table |
| OrderDate | Date |  |  | Not Null |
| Salesman\_No | Char | 6 |  | Foreign Key References Salesman\_No of Salesman\_Master Table |

**Solution Query:**

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

CREATE TABLE **PRODUCT\_MASTER** (

Product\_No CHAR(6) PRIMARY KEY,

Description VARCHAR2(15) NOT NULL,

ProfitPercent NUMBER(4,2) NOT NULL,

UnitMeasure VARCHAR2(10) NOT NULL,

SellPrice NUMBER(8,2) NOT NULL CHECK (SellPrice BETWEEN 10000 AND 80000),

CostPrice NUMBER(8,2) NOT NULL CHECK (CostPrice > 1000)

);

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

CREATE TABLE **SALESMAN\_MASTER** (

Salesman\_No CHAR(6) PRIMARY KEY,

SalesmanName VARCHAR2(20) NOT NULL,

Address VARCHAR2(30) NOT NULL,

City VARCHAR2(20),

PinCode NUMBER(6),

State VARCHAR2(20),

SalAmt NUMBER(8,2) NOT NULL,

CONSTRAINT pincode\_unique UNIQUE (PinCode),

CONSTRAINT city\_not\_nagpur CHECK (City <> 'NAGPUR')

);

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

CREATE TABLE **CLIENT\_MASTER** (

Client\_No CHAR(6) PRIMARY KEY,

Name VARCHAR2(20) NOT NULL,

Address VARCHAR2(100),

City VARCHAR2(15),

Pincode NUMBER(6),

State VARCHAR2(20),

Bal\_Due NUMBER(8,2)

);

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

CREATE TABLE **SALES\_ORDER** (

Order\_No CHAR(6) PRIMARY KEY,

Client\_No CHAR(6),

OrderDate DATE NOT NULL,

Salesman\_No CHAR(6),

FOREIGN KEY (Client\_No) REFERENCES CLIENT\_MASTER(Client\_No),

FOREIGN KEY (Salesman\_No) REFERENCES SALESMAN\_MASTER(Salesman\_No)

);