

PRACTICAL-3 (SQL)

Discuss followings:

- What is data constraints?
- Explain following constraints with simple example (Note: Do not write any query, just define table with single column and discuss what is the domain characteristics ?, if followings constraint define on that column.

Primary Key

Unique

NOT NULL

Check

Foreign Key

Perform Followings with SQL

Note:- Use Create Command To define Constraint

Table: **ACCOUNT_Key**

Column name	Data Type	Size	Attributes
Acc_no	Varchar2	5	Primary key / first letter must start with 'A'
Name	Varchar2	30	NOT NULL
City	Varchar2	20	NOT NULL
Balance	Number	10,2	Balance >=500
Loan_taken	Varchar2	3	Values('NO','YES')

Insert following records and Write Appropriate Comment on insertion operation if require.

acc_no	Name	City	Balance	loan_taken
A001	Patel Jigar	Mehsana	50000	YES
A002	Patel Ramesh	Mehsana	50000	YES
A003	Dave Hardik	Ahmedabad	75000	NO
A004	Soni Hetal	Ahmedabad	100000	NO
A005	Sony Atul	Vadodara	100000	YES
A005	Patel Arun	Surat	4000	No
A006	NULL	Baroda	5000	NO
A007	Patel Rachit	NULL	6000	NO
A008	Patel Vir	Mehsana	400	NO
A009	Patel Vyom	Surat	1000	ABC

Table: **Loan_Key.**

Column Name	Data Type	Size	Attributes
Loan_no	Varchar2	5	Primary Key / first letter must start with 'L'
Acc_no	Varchar2	5	Foreign key References Acc_no of account table
Loan_amt	Number	10,2	NOT NULL
Interest_rate	Number	5,2	NOT NULL
Loan_date	Date		
Remaining_loan	Number	10,2	Remaining loan < loan amount

Insert followings records.

Loan_no	Acc_no	Loan_amt	Interest_rate	Loan_date	Remaining_loan
L001	A001	100000	7	1-jan-04	75000
L002	A002	300000	9	18-may-04	150000
L003	A005	500000	11	15-june-04	300000

Table : **INSTALLMENT_Key**.

Column Name	Data Type	Size	Attributes
<u>Loan_no</u>	Varchar2	5	Foreign key References Loan_no of Loan table
Inst_no	Varchar2	5	first letter must start with 'I'
IDate	Date		NOT NULL
Amount	Number	10,2	NOT NULL

Insert the following records.

Loan_no	Inst_no	Date	Amount
L001	I001	2-Feb-04	15000
L002	I002	18-June-04	20000
L003	I003	15-July-04	20000

CONSTRAINTS Based queries.

Create Table:**STUDENT**

Name of column	Type and Size
Rollno	Varchar2(6)
Name	Varchar2(20)
Branch	Varchar2(6)
Address	Varchar2(20)

Note : Use Alter Command to define Constraint

1. Add PRIMARY KEY (roll no) and provide constraint name PRIM_rollno.
2. Add NOT NULL constraint to name,branch for student table.
3. Add check constraint and check name is in capital letter.
4. Drop the primary key.
5. Drop the constraint.

Create Table **REGISTER**.

Name of column	Type and Size
Rollno	Varchar2(6)
Name	Varchar2(20)

Note : Use Alter Command to define Constraint

1. Provide foreign key references rollno of student table.
2. Add check constraint to check name's first letter is always capital.
3. Add NOT NULL constraint to name of register table.
4. Drop foreign key of REGISTER table.
5. Drop NOT NULL constraint.