RGPV 2019
Q. Explain the concepts of Primary key, Foreign key and Integrity constraints ?

Ans.

If there is relation between table than it must have a primary key.

In table Student RollNo is primary key.

Student

RollNo	Name	Department
010	Sanjay	CSE
012	Ram Prasad	ME
021	Natwarlal	CSE

In table Account RollNo is primary key for it but also a Foreign key for table Student.

Account(Student)

RollNo	A/C No.
010	0074100
031	005452010
040	14540000

Primary keys cant contain duplicate value but, foreign keys can contain duplicate values.

Also, Primary key cant contain NULL values, Foreign keys can contain NULL values.

Primary key vs Foreign key:

Primary Key	Foreign Key
No duplicate value.	Duplicate values allowed.
Null values not allowed.	Null values allowed.
Uniquely identified.	May be uniquely
It's indexed automatically.	No automatic index.

A foreign key is a set of one or more columns in a table that refers to the "primary key in another table". So foreign key Can't contain a value which does not refer to the primary key, I am not agree that PhoneNumberTypeID is a foreign key.

Integrity Constraints:

Some integrity constraints are:

1. Primary key constraints
2. Foreign key constraints
3. Unique key constraints

3. Unique key contraints:

A unique column constraint in a table is similar to a primary key in that the value in that column for every row of data in the table must have a unique value. Although a primary key constraint is placed on one column, you can place a unique constraint on another column even though it is not actually for use as the primary key.

Related posts:

1. Database approach v/s Traditional file accessing approach | RGPV
2. RGPV DBMS Explain the concepts of generalization and aggregation with appropriate examples
3. RGPV solved Database approach vs Traditional file accessing approach
4. DBMS definition and major components | RGPV PYQ
5. Data modelling, compare Data models | RGPV DBMS PYQ
6. Consider the following employee database
7. Explain select, project and division operations with examples.
8. Explain the concepts of Generalization and Aggregation with appropriate examples.