*DEPARTMENT OF COMPUTER ENGINEERING* Experiment No:5

|  |  |
| --- | --- |
| Semester | S.E. Semester IV – Computer Engineering |
| Subject | Database Management Systems Laboratory. |
| Lectures Professor In-charge | Prof. Suja Jayachandran |
| Practicals Professor In-Charge | Prof. Suja Jayachandran |
| Laboratory number | M312 |

|  |  |  |  |
| --- | --- | --- | --- |
| Student Name | Deep Salunkhe | | |
| Roll Number | 21102A0014 | | |
| Grade |  | Teacher’s Signature |  |

|  |  |  |
| --- | --- | --- |
| Experiment No: | 5 | |
| Experiment Title | Referential Integrity Constraints | |
| Resources / Apparatus Required | Hardware:  PC | Software:  PostgreSQL |
| Objectives  (Skill Set / Knowledge Tested / Imparted) | 1) To Study Referential integrity constraint | |
| Historical Profile |  | |
| Theory | A referential integrity constraint is also known as foreign key constraint. A foreign key is a key whose values are derived from the Primary key of another table.  The table from which the values are derived is known as Master or Referenced Table and the Table in which values are inserted accordingly is known as Child or Referencing Table, In other words, we can say that the table containing the foreign key is called the child table, and the table containing the Primary key/candidate key is called the referenced or parent table. When we talk about the database relational model, the candidate key can be defined as a set of attribute which can have zero or more attributes.  There are two referential integrity constraint:  Insert Constraint: Value cannot be inserted in CHILD Table if the value is not lying in MASTER Table  Delete Constraint: Value cannot be deleted from MASTER Table if the value is lying in CHILD Table  Referential integrity requires that a foreign key must have a matching primary key or  It must be null. This constraint is specified between two tables (parent and child); it maintains the correspondence between rows in these tables. It means the reference from a row in one table to another table must be valid. To maintain referential integrity constraint add on delete cascade and on update cascade. | |
| Implementation | image.png  image (1).png  image (2).png | |
| Conclusion | It ensures that all data in a database remains consistent and up to date. It helps to prevent incorrect records from being added, deleted, or modified. | |