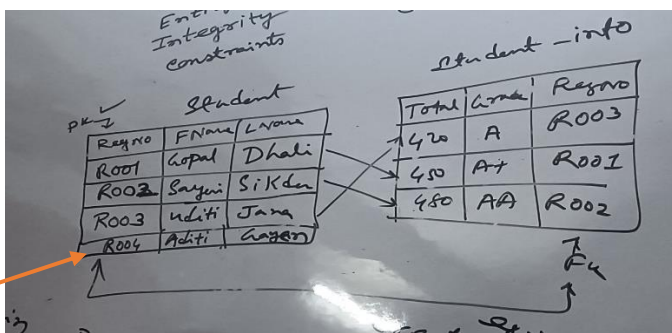


## • ENTITY INTEGRITY CONSTRAINTS

In this constraint minimum two relations is required. In the first relation Primary key must be there and in the second relation Foreign key must be there to link up between both the tables. Each tuple must be uniquely identified by primary key and Foreign key concepts.



In the above example, there are three tuples which are easily identified by the concept but **R004** that is Aditi, record is not found in the second table which means R004 can't identified by entity integrity constraints.

### Advantages:

1. Data duplication or redundancy can be prevented.
2. Record can be uniquely identified.

### Disadvantage:

1. Few records which are not uniquely identified.

## • DOMAIN INTEGRITY CONSTRAINTS:

The property of an attribute is known as domain which means we can define a column with their data type is known as domain.

```
Create table Student_info
(
Total int,
Grade varchar(2),
RegNo varchar(2),
);
```

**Domain:**

Total ← int  
Grade ← varchar  
RegNo ← varchar

In the above example grade column is denoted by varchar(2) which means we can store only two letters within that attribute, these constraints are known as domain integrity constraints.

### **Advantage:**

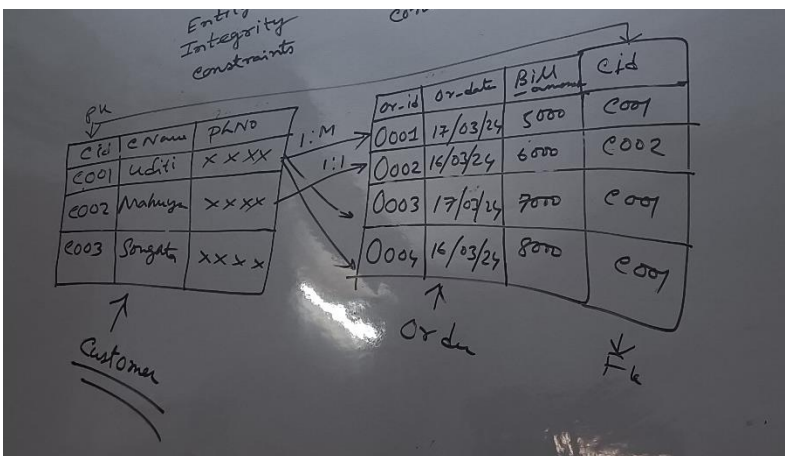
1. Specific data can be stored with specific attribute.
2. How many data can be stored with a specific column can be described here.

### **Disadvantage:**

1. If we alter data type then data can be lost.

## • REFERENTIAL INTEGRITY CONSTRAINTS:

In this integrity constraint minimum two tables are required and within both the tables 1:1 and 1:Many relationship must be there. One tuple which is present in the first table may or may not be present in the second table.



### **Advantages:**

1. If the record is present in both tables we can't add or delete within both tables.

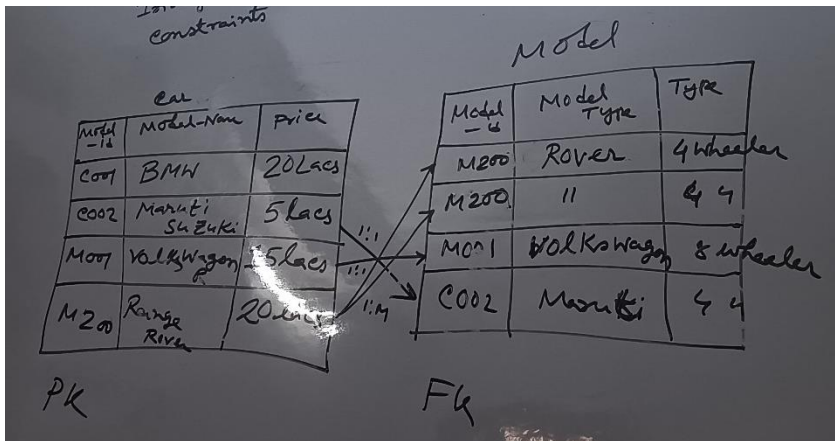
2. If the record is present in the first table but not present in the second table, we can't edit or update the new record.

### Disadvantages:

1.

- **FOREIGN KEY INTEGRITY CONSTRAINTS:**

In case of warranty integrity constraints minimum two tables is required and within both the tables 1:1, 1:Many relationship must be present. Updation and deletion can possible.



**Cascade update:** In cascade update, if we change the specific row that is M002 then automatically second table's connected row will be changed (updated).

**Cascade delete:** If we delete a specific row of the first table then automatically second tables connected through will be deleted. It is known as cascade delete.