**Normalization Practice**

**Delivery\_company**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **DID** | **D\_name** | **Company** | **Phone** | **Customer1** | **Customer2** | **Customer3** |
| **101** | **A** | **S.A** | **987654** | **Q** | **W** | **R** |
| **102** | **B** | **Pathao** | **79998877** | **T** | **-** | **Y** |
| **103** | **C** | **-** | **-** | **-** | **-** | **-** |
| **104** | **D** | **Pathao** | **87654** | **H** | **G** |  |

**1NF-normalization form- multivalued attribute**

**2NF- all non-key should be depends on pk- sid,sname,age,gpa,cgpa**

**3NF-transitive dependency**

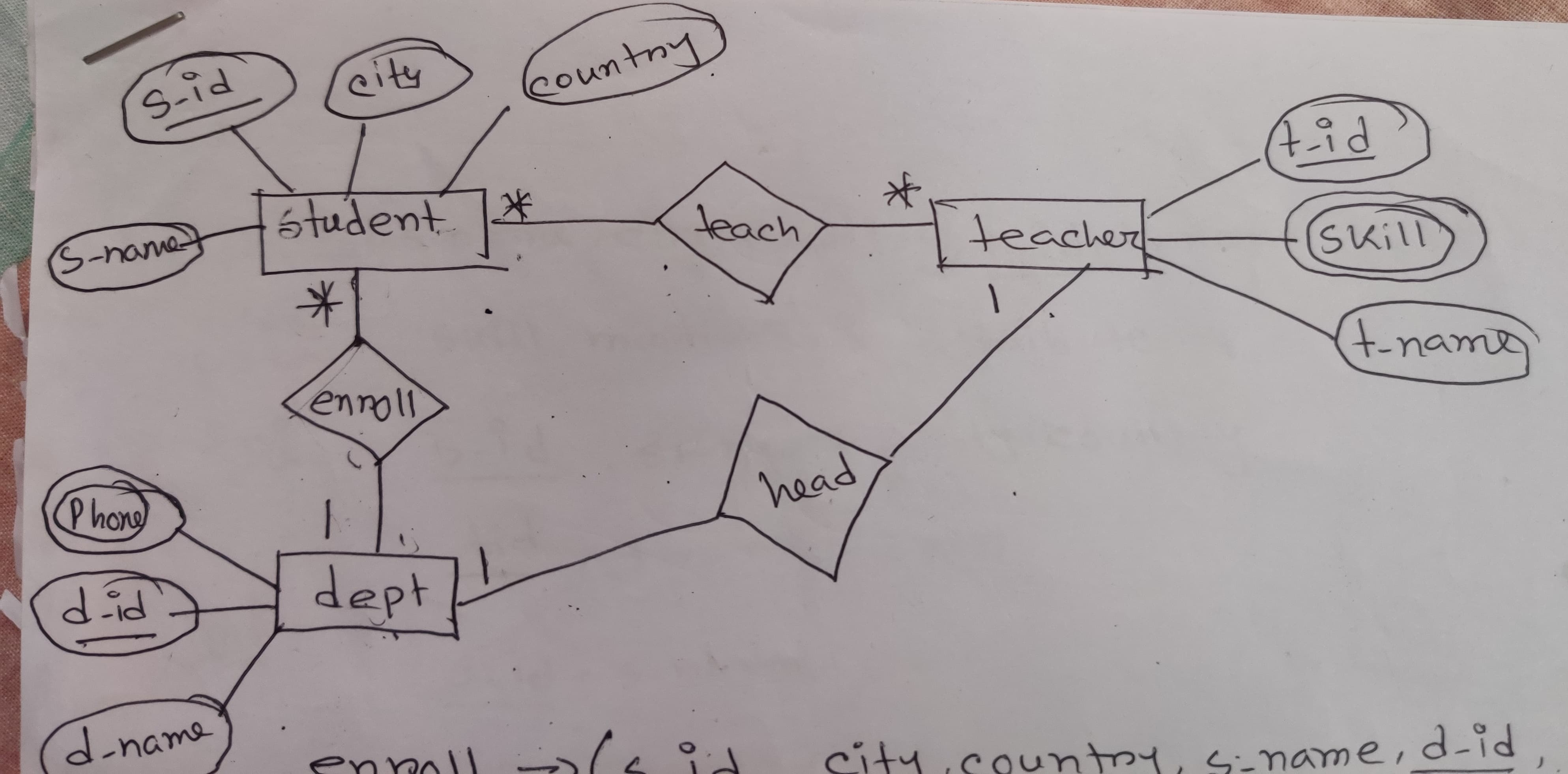
**gpa,cgpa**

**sid,sname,age**

|  |  |  |  |
| --- | --- | --- | --- |
| **name** | **age** | **Phone** | **adrs** |
| **Smith** | **18** | **555** |  |
| **Smith** | **18** | **666** |  |
| **Smith** | **18** | **777** |  |
| **smith** | **18** | **888** |  |

**Green one is the primary key,**

**red one is the foreign key.**



**Head- (d\_id,d\_name,phone,t\_id,t\_name,skill)**

**1NF-phone & skill are multivalued attribute**

**2NF- d\_id, d\_name,phone**

**T\_id,t\_name,skill,**

**3NF- no transitive dependency**

**d\_id, d\_name,phone**

**T\_id,t\_name,skill**

**Table for Head-**

1. **d\_id, d\_name,t\_id**
2. **t\_id,t\_name**
3. **d\_id, phone**
4. **t\_id, skill**

**Teach-(s\_id,s\_name,city,country, t\_id, t\_name,skill)**

**1NF- skill is a multivalued attribute**

**2NF- s\_id, s\_name,country,city**

**T\_id, t\_name,skill**

**3NF- s\_id, s\_name**

**c\_id,country,city**

**T\_id, t\_name,skill**

**Table for teach-**

1. **s\_id, s\_name,c\_id**
2. **c\_id,country,city**
3. **T\_id, t\_name**
4. **N\_id, s\_id, t\_id**
5. **T\_id, skill- composite pk**

**Enroll- (s\_id , s\_name, country , city , d\_id , d\_name, phone)**

**1NF- phone is a multivalued attribute**

**2NF- S\_id, s\_name,country,city**

**D\_id, d\_name, phone**

**3NF- S\_id, s\_name**

**C\_id, country,city**

**D\_id, d\_name, phone**

**Table for Enroll-**

1. **S\_id, s\_name, d\_id, c\_id**
2. **C\_id, country,city**
3. **D\_id, d\_name**
4. **D\_id, phone- composite pk**

**Final table list-**

1. **S\_id, s\_name, d\_id, c\_id - student**
2. **C\_id, country,city- cont\_ct**
3. **D\_id, phone- dept1**
4. **T\_id, t\_name - teacher**
5. **N\_id, s\_id, t\_id- newtbl**
6. **T\_id, skill- teacher2**
7. **d\_id, d\_name,t\_id- dept**