Normalizations Database using functional Dependency UPTO BUNE

step=1: Define theinthal relational scheme and fundamental bep endoncies.

Student Slot (student 10, student name, Email, Dept\_Id, Dept\_name course -101 course -name, credits, slot-10, stot-name, Datamenue).

- 1. Student -10 -> student -name, E-mail, Dept-1d
- 2. Dept-10 Dept-name
- 3. course-10 rourse-name, eredits, course-type
- 4. slot 10 -) slot type, Data Ivenue
- 5. student -ID -> Slot-1d -> course -ID.

Step: 2: convert the relational to INF

or I dentity and Elimination any reprotting groups or entle Student Slot relation.

at create suppose tables of suparting Step 3, convert to ant

of Ensure the each mon-key attribute depends on the whole promory key,

or move non-key Attributes to Seperaters relations if they depends only part of primary key.

proposed Decomposition:

- 1. student (student 10, student-name, Email, Rept-10)
  - 2. Department (Dept-1d, Dept-name)
  - 3. course (ourse-10, course-Name, credits)
  - y, Slot (slot-10, slot-type pata, venue)
- 5. Student Slot course (student 10, slot-10, course ~10)

# Step-4: Convert to 3NF

- \* Remove transtive dependencies where a non-key attribute depends on another, non-key attributes.
  - \* There is notransitive dependencies.

## Step 5! convert to BINE

- \* Ensure everay determinant is a condidate trey
- \* check for overcapping candidate tay
- to Decompose relation to elimate dependency
- to No decomposition needed

#### Use Existith tool !-

- 1. Input relational Schema and functional dependencies
  - 2. Emostith tool generates a dependency group
  - 3. Analy 30 normalization sults to transform the IChma,
  - 4. Apply normalization sults to transform the schema.
  - 5. verify the resulting schma meets BINF -criteria.

### Emstith too) Steps :-

- I create a new project in entitles
- 2. Detine the relational schmea and FDIS
- 3. Run the rependancy arraph tool.
- 4 Analyze the graph for normalization issue
- or, Apply transformations using the "Normalization" too)
- 6. Verly BINF compliance using the "BINF" check tool

### Normalizationed Schema!

- 1. Student (Student-1d, Student-name, Email)
- 2. Department (Dept\_10, Dept\_name)
- 3. course (course \_10, course \_name, crediti)
- 4. slot (Slot-10, Slot-type, pata, venue)
- 5. Student\_slot\_course (student-0, 16+-10, course-10).

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EX No.

PERFORMANCE (5)

RESULT AND ANALYSIS (5)

VIVA VOCE (5)

RECOND (5)

TOTAL (20)

SIGN WITH DATE

Result! - The Implementation of Mormalization actabase using functional Dependency BENFD revised successfully