***-:Functional Dependencies:-***

**EMPLOYEE\_TRANSACTION ( E\_Trans\_ID, E\_ID, Advanced\_Payment, Salary\_Paid, Date )**

E\_trans\_id 🡪E\_ID

E\_trans\_id 🡪 Advanced\_Payment

E\_trans\_id 🡪Salary\_paid

E\_trans\_id 🡪 Date

**KEY :- E\_Trans\_ID**

**EMPLOYEE ( E\_ID, E\_Name, Salary, Password, Type, Email, Phone\_No )**

E\_ID 🡪 E\_name

E\_ID 🡪 Salary

E\_ID 🡪 Password

E\_ID 🡪 Type

E\_ID 🡪 Email

E\_ID 🡪 Phone\_no

**KEY :- E\_ID**

**SUPPLIER\_TRANSACTION ( S\_Trans\_ID, Gold\_P, Silver\_P, S\_Trans\_Date )**

S\_trans\_ID 🡪S\_ID

S\_trans\_ID 🡪Gold\_P

S\_trans\_ID 🡪 Silver\_P

S\_trans\_ID 🡪S\_Trans\_Date

**KEY :- S\_Trans\_ID**

**SUPPLIER ( S\_ID, S\_Name, Phone\_No, City)**

S\_ID 🡪 S\_name

S\_ID 🡪 Phone\_no

S\_ID 🡪 City

**KEY :- S\_ID**

**CUSTOMER\_TRANSACTION ( C\_Trans\_ID, Remaining, Date, Amount, Bill\_ID, Customer\_ID )**

C\_Trans\_ID 🡪C\_ID

C\_Trans\_ID 🡪Remaining

C\_Trans\_ID 🡪Date

C\_Trans\_ID 🡪Amount

C\_Trans\_ID 🡪Bill\_ID

**KEY :- C\_Trans\_ID**

**CUSTOMER ( Customer\_ID, C\_Phone\_No, C\_Email, C\_City, C\_Locality, C\_Name )**

Customer\_ID 🡪C\_Phone\_no

Customer\_ID 🡪C\_Email

Customer\_ID 🡪C\_City

Customer\_ID 🡪C\_Locality

Customer\_ID 🡪C\_Name

**KEY :- Customer\_ID**

**BILLING ( Bill\_ID, Customer\_ID, Discount, Net\_Profit, Payable, Cash, Gold\_Return, Silver\_Return, Date )**

Bill\_ID 🡪 Customer\_ID

Bill\_ID 🡪 Discount

Bill\_ID 🡪 Net\_Profit

Bill\_ID 🡪 Payable

Bill\_ID 🡪 Cash

Bill\_ID 🡪 Gold\_Return

Bill\_ID 🡪 Silver\_Return

Bill\_ID 🡪 Date

**KEY :- Bill\_ID**

**PRODUCT ( P\_ID, P\_Name, Material, Style, No\_Of\_Pieces, Percentage, Weight )**

P\_ID 🡪P\_Name

P\_ID 🡪 Material

P\_ID 🡪 Style

P\_ID 🡪 No. of pieces

P\_ID 🡪 Percentage

P\_ID 🡪 Weight

**KEY :- P\_ID**

**PRODUCT\_INFO ( Bill\_ID, P\_ID, Price/10g, Wastage, Labour, Price\_Total, Quantity, Weight )**

{Bill\_ID,P\_ID} 🡪 Price/10g

{Bill\_ID,P\_ID} 🡪 Wastage

{Bill\_ID,P\_ID} 🡪 Labour

{Bill\_ID,P\_ID} 🡪 Price\_Total

{Bill\_ID,P\_ID} 🡪 Quantity

{Bill\_ID,P\_ID} 🡪 Weight

**KEY :- { Bill\_ID, P\_ID }**

**SCHEME\_TRANSACTION ( S\_Trans\_ID, S\_ID, Paid, Date, Customer\_ID )**

S\_Trans\_ID 🡪 S\_ID

S\_Trans\_ID 🡪 Paid

S\_Trans\_ID 🡪 Date

S\_Trans\_ID 🡪 Customer\_ID

**KEY :- S\_Trans\_ID**

**SCHEME ( Scheme\_ID, Duration, Installment, Return\_Amount )**

Scheme\_ID🡪 Duration

Scheme\_ID🡪 Installment

Scheme\_ID🡪 Return\_Amount

**KEY :- Scheme\_ID**

**CUSTOMER\_SCHEME ( Scheme\_ID, Customer\_ID, Start\_Date, Purchased )**

{Scheme\_ID,Customer\_ID} 🡪 Start\_Date

{Scheme\_ID,Customer\_ID} 🡪 Purchased

**KEY :- {Scheme\_ID, Customer\_ID}**

**MORTGAGE\_TRANSACTION ( M\_Trans\_ID, M\_ID, Amount, M\_Trans\_Date, Remaining, Interest\_Paid )**

M\_Trans\_ID 🡪 M\_ID

M\_Trans\_ID 🡪 Amount

M\_Trans\_ID 🡪 M\_Trans\_Date

M\_Trans\_ID 🡪 Remaining

M\_Trans\_ID 🡪 Inserest\_Paid

**KEY :- M\_Trans\_ID**

**MORTGAGE ( M\_ID, Customer\_Name, Date\_Of\_Submission, Price, Phone\_No, City )**

M \_ID 🡪 Customer\_Name

M \_ID 🡪 Date\_Of\_Submission

M \_ID 🡪 Price

M \_ID 🡪 Phone\_no

M \_ID 🡪 City

**KEY :- M\_ID**

**ADMIN ( Username, Password )**

Username 🡪 Password

**KEY :- Username**

Lost Functional Dependencies for BCNF:-

C\_Phone\_No 🡪 C\_ID

C\_Email 🡪 C\_ID

C\_Phone\_No 🡪 C\_Email

Phone\_No 🡪 Email

Phone\_No 🡪 E\_ID

Email 🡪 E\_ID

*But without adding above Functional Dependencies, we don’t lose anything, hence we’re Making it BCNF even with losing these Functional Dependencies.*