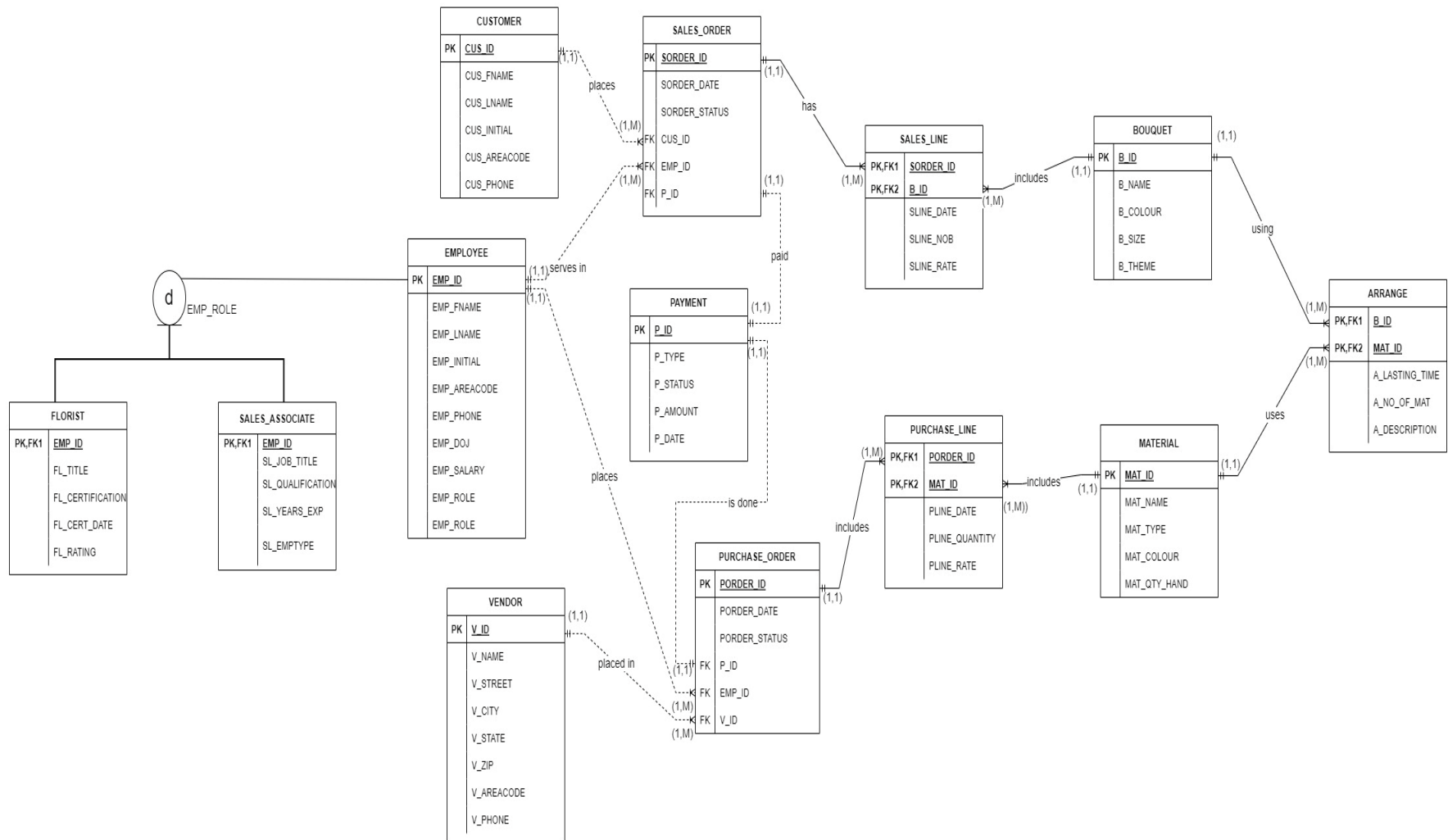# THE ENTITY RELATIONSHIP DIAGRAM
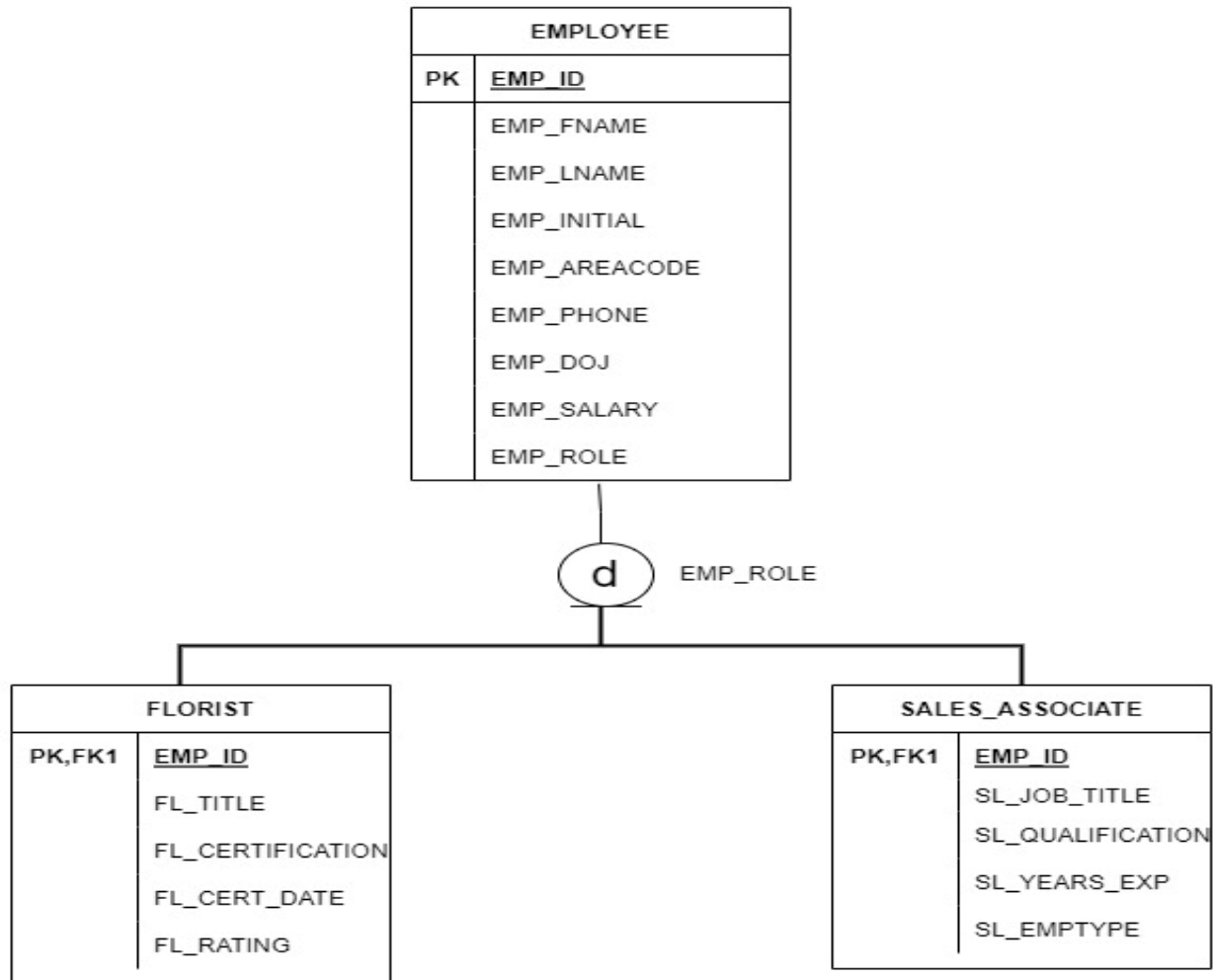
1.RELATIONAL SCHEMAS:

- CUSTOMER (**CUS_ID**, CUS_FNAME, CUS_LNAME, CUS_INITIAL, CUS_AREACODE, CUS_ PHONE)
- EMPLOYEE (**EMP_ID**, EMP_FNAME, EMP_LNAME, EMP_INITIAL, EMP_AREACODE, EMP_ PHONE, EMP_DOJ, EMP_SALARY, EMP_ROLE)
- FLORIST (**EMP_ID**, FL_TITLE, FL_CERTIFICATION, FL_CERT_DATE, FL_RATING)
- SALES_ASSOCIATE (**EMP_ID**, SL_JOB_TITLE, SL_QUALIFICATION, SL_YEARS_EXP, SL_EMPTYPE)
- PAYMENT (**P_ID**, P_TYPE, P_STATUS, P_AMOUNT, P_DATE)
- SALES_ORDER (**SORDER_ID**, SORDER_DATE, SORDER_STATUS, CUS_ID, EMP_ID, P_ID)
- VENDOR (**V_ID**, V_NAME, V_STREET, V_CITY, V_STATE, V_ZIP, V_AREACODE, V_PHONE,)
- PURCHASE_ORDER (**PORDER_ID**, PORDER_DATE, PORDER_STATUS, EMP_ID, V_ID, P_ID)
- MATERIAL (**MAT_ID**, MAT_NAME, MAT_TYPE, MAT_COLOR, MAT_QTY_HAND)
- PURCHASE_LINE (**PORDER_ID, MAT_ID**, PLINE_QUANTITY, PLINE_RATE, PLINE_DATE)
- BOUQUET (**B_ID**, B_NAME, B_COLOR, B_THEME, B_SIZE)
- ARRANGE (**B_ID, MAT_ID**, A_LASTING_TIME, A_NO_OF_MAT, A_DESCRIPTION)
- SALES_LINE (**B_ID, SORDER_ID**, SLINE_DATE, SLINE_NOB, SLINE_RATE)

2.CROW'S FOOT DIAGRAM OF ALL ENTITIES:

CUSTOMER

PK	CUS_ID
	CUS_FNAME
	CUS_LNAME
	CUS_INITIAL
	CUS_AREACODE
	CUS_PHONE

SALES_ORDER

PK	SORDER_ID
	SORDER_DATE
	SORDER_STATUS
FK	CUS_ID
FK	EMP_ID
FK	P_ID

SALES_LINE

PK,FK1	SORDER_ID
PK,FK2	B_ID
	SLINE_DATE
	SLINE_NOB
	SLINE_RATE

BOUQUET

PK	B_ID
	B_NAME
	B_COLOUR
	B_SIZE
	B_THEME

ARRANGE

PK,FK1	B_ID
PK,FK2	MAT_ID
	A_LASTING_TIME
	A_NO_OF_MAT
	A_DESCRIPTION

EMPLOYEE

PK	EMP_ID
	EMP_FNAME
	EMP_LNAME
	EMP_INITIAL
	EMP_AREACODE
	EMP_PHONE
	EMP_DOJ
	EMP_SALARY
	EMP_ROLE
	EMP_ROLE

PAYMENT

PK	P_ID
	P_TYPE
	P_STATUS
	P_AMOUNT
	P_DATE

FLORIST

PK,FK1	EMP_ID
	FL_TITLE
	FL_CERTIFICATION
	FL_CERT_DATE
	FL_RATING

SALES_ASSOCIATE

PK,FK1	EMP_ID
	SL_JOB_TITLE
	SL_QUALIFICATION
	SL_YEARS_EXP
	SL_EMPTYPE

PURCHASE_LINE

PK,FK1	PORDER_ID
PK,FK2	MAT_ID
	PLINE_DATE
	PLINE_QUANTITY
	PLINE_RATE

MATERIAL

PK	MAT_ID
	MAT_NAME
	MAT_TYPE
	MAT_COLOUR
	MAT_QTY_HAND

PURCHASE_ORDER

PK	PORDER_ID
	PORDER_DATE
	PORDER_STATUS
FK	P_ID
FK	EMP_ID
FK	V_ID

VENDOR

PK	V_ID
	V_NAME
	V_STREET
	V_CITY
	V_STATE
	V_ZIP
	V_AREACODE
	V_PHONE

d EMP_ROLE

places, has, includes, using, serves in, paid, uses, is done, includes, placed in, places
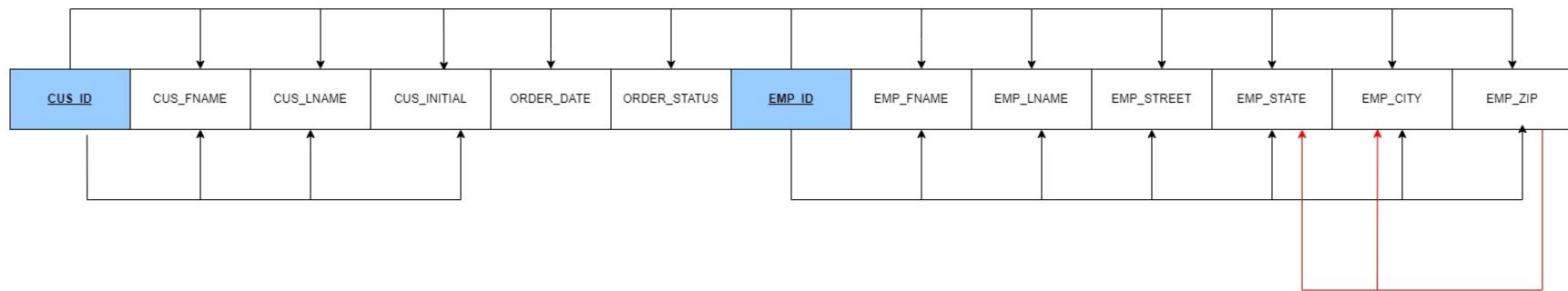
3.CROW'S FOOT DIAGRAM OF A SUBTYPE/SUPERTYPE RELATIONSHIP

4. NORMALIZED TABLE WALK-THROUGH

(Denormalized the existing tables to get a hypothetical table "Customer".)

First Normal Form (1NF)

CUS_ID	CUS_FNAME	CUS_LNAME	CUS_INITIAL	ORDER_DATE	ORDER_STATUS	EMP_ID	EMP_FNAME	EMP_LNAME	EMP_STREET	EMP_STATE	EMP_CITY	EMP_ZIP

Relational Schema:

1NF (**CUS_ID, EMP_ID**, CUS_FNAME, CUS_LNAME, CUS_INITIAL, ORDER_DATE, ORDER_STATUS, EMP_FNAME, EMP_LNAME, EMP_STREET, EMP_CITY, EMP_STREET, EMP_ZIP)

Partial dependencies:

 (**CUS_ID** -> CUS_FNAME, CUS_LNAME, CUS_INITIAL)

 (**EMP_ID** -> EMP_FNAME, EMP_LNAME, EMP_STREET, EMP_CITY, EMP_STATE, EMP_ZIP)

Transitive Dependencies:

(EMP_ZIP -> EMP_CITY, EMP_STATE)

Second Normal Form (2NF)
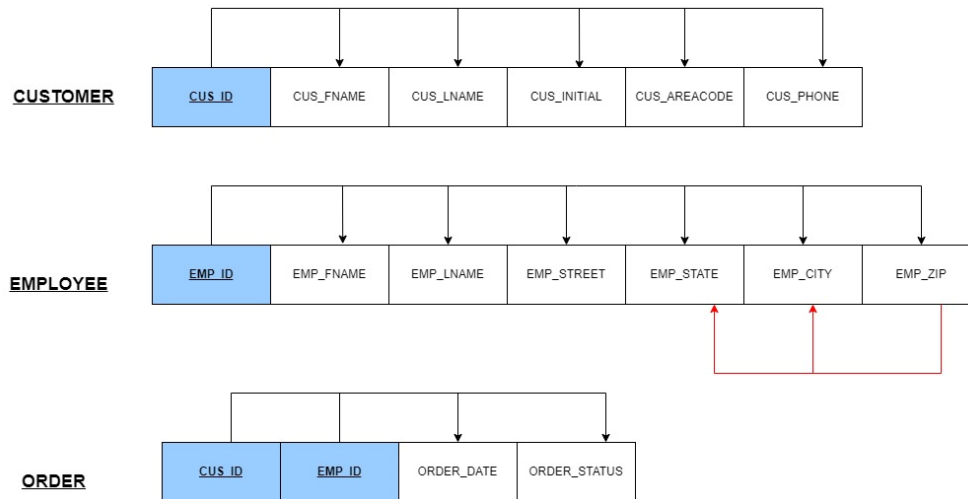
Relational Schema:

CUSTOMER (**CUS_ID**->CUS_FNAME, CUS_LNAME, CUS_INITIAL, CUS_AREACODE, CUS_PHONE)
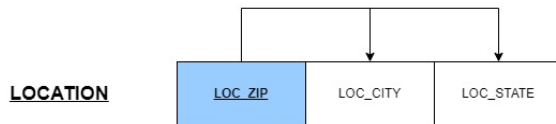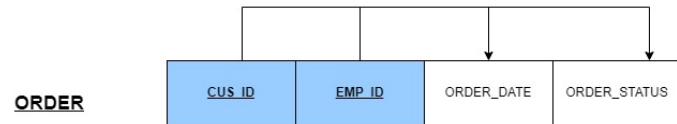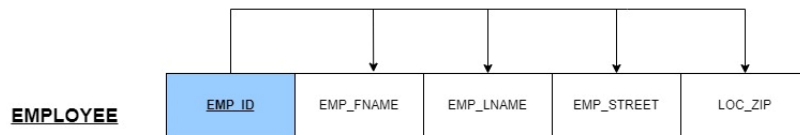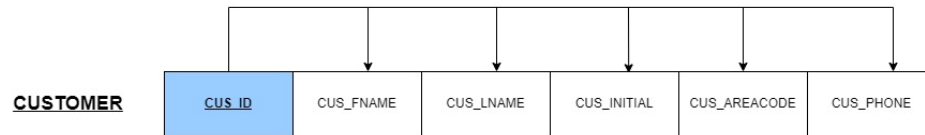
EMPLOYEE (**EMP_ID**-> EMP_FNAME, EMP_LNAME, EMP_STREET, EMP_CITY, EMP_STATE, EMP_ZIP

ORDER (**CUS_ID, EMP_ID**, ORDER_DATE, ORDER_STATUS)

Transitive Dependencies:

 (EMP_ZIP -> EMP_CITY, EMP_STATE)

Third Normal Form (3NF)

Relational Schema:

CUSTOMER (**CUS_ID**->CUS_FNAME, CUS_LNAME, CUS_INITIAL, CUS_AREACODE, CUS_PHONE)

EMPLOYEE (**EMP_ID**-> EMP_FNAME, EMP_LNAME, EMP_STREET, LOC_ZIP)

ORDER (**CUS_ID, EMP_ID**, ORDER_DATE, ORDER_STATUS)

LOCATION (**LOC_ZIP**, LOC_CITY, LOC_STATE)