27/7/21

Task 1

ER Diagram for a mobile phone purchase and Billing management System that maintains details of customers

Aim: To design and Entity Relationship (ER) diagram for a mobile phone purchase and Billing management system that maintains details of customers, mobiles purchases, billing and login credentials for administrative purpose

Algorithm:

Step1: Start

2: Identify the main entities

=> Customer

=> Mobile

=> Bill

=> Login

Step3: Identify the Attributes for each entity

Customer: Cust ID, Cust Name, City, PhoneNo, Amount

Mobile: Phone ID, MobileName, Mobile price

Bill: Bid, cust Name, Price

Login: AdminID, password (pwd)

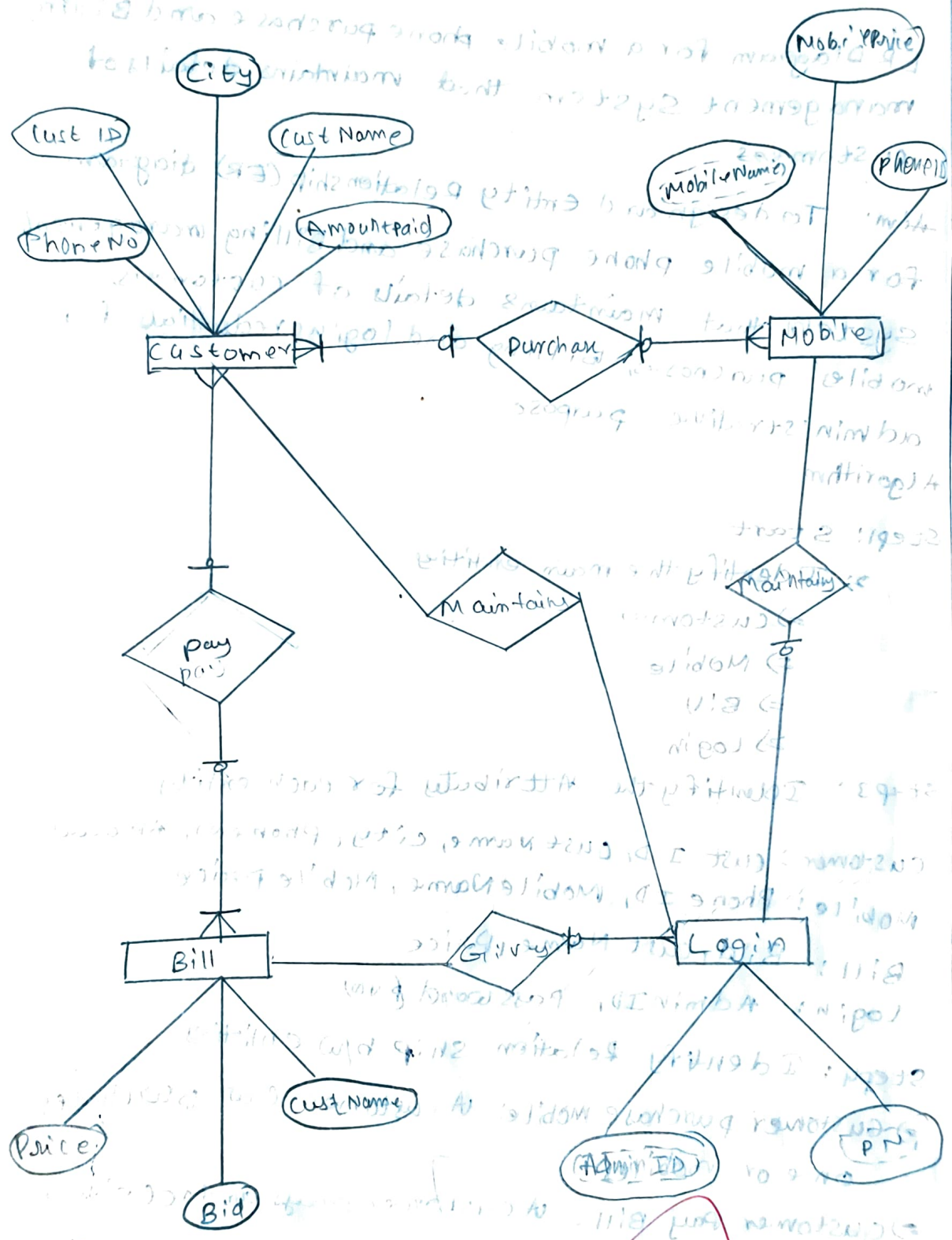
Step4: Identify Relation Ship b/w entities

=> Customer purchase Mobile: A customer can purchases one or mobiles.

=> Customer Pay Bill: A customer pays and receives a bill.

=> Bill gives-Login: A bill is given by a login/admin account

=> Login-maintains-Customer/Mobile: Admin customer & mobile data


City
Cust ID
Cust Name
PhoneNo
AmountPaid
Customer
Purchase
Mobile
Mobile Price
Mobile Name
Phone ID
Maintains
Maintains
Pay
Bill
Login
Cust Name
Price
Bid
Admin ID
PN

steps: Determine cardinality

Customer to mobile: Many-to-many

Customer to bill: one to one or one to may

Login to Bill: one_to_many

Login to mobile/customer: one_to_many

Step 6: Draw the ER Diagram

Rectangles = Entity

Ellipses = Attributes

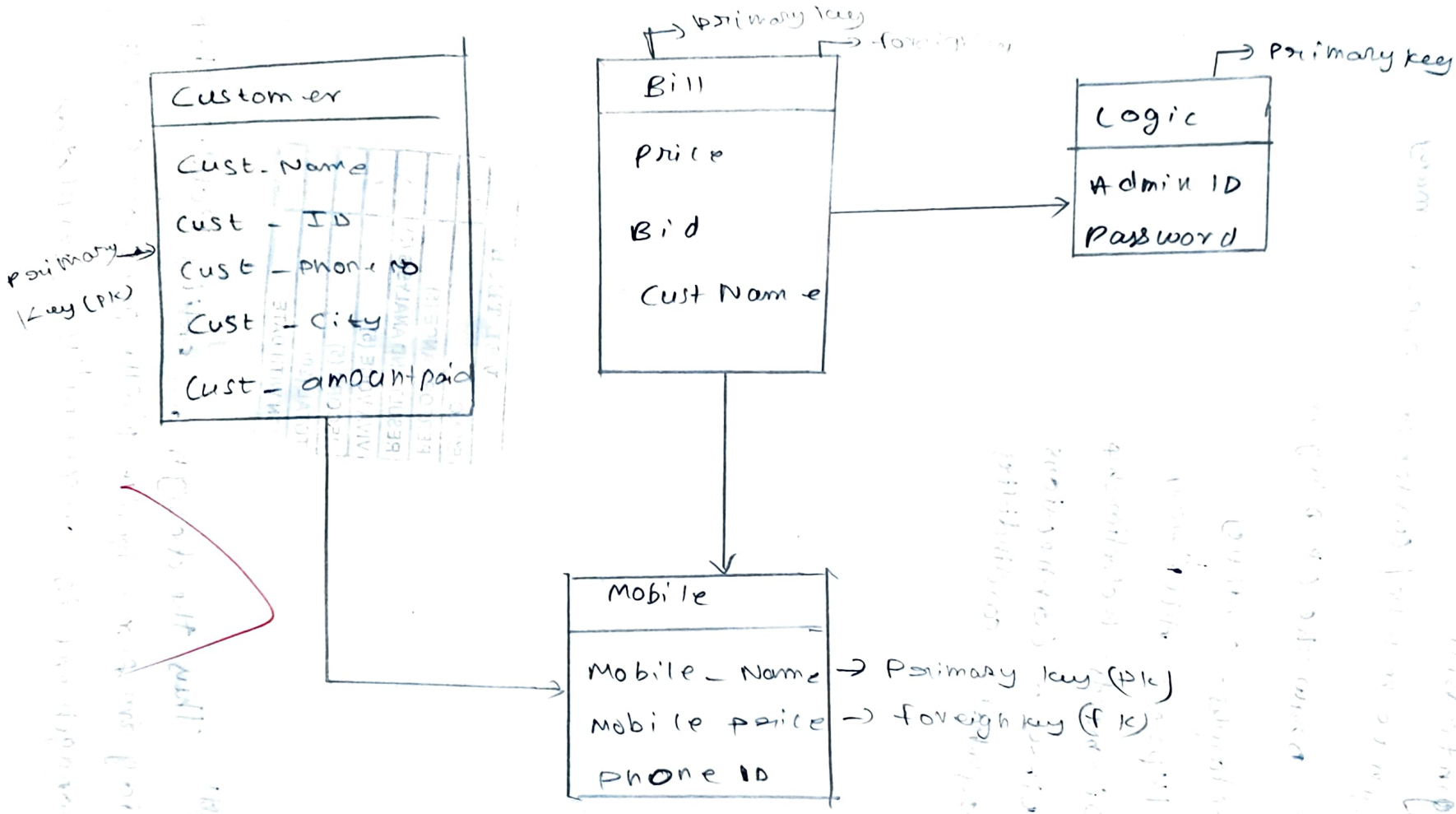
Diamonds = Relationship

Lines = Connections

symbol = cordinditiy

VEL TECH	
EX NO.	9
PERFORMANCE (5)	5
RESULT AND ANALYSIS (5)	5
VIVA VOCE (5)	0
RECORD (5)	—
TOTAL (20)	10
SIGN WITH DATE	19/8

Result: Thus the design an entity Relationship diagram for a mobile phone purchase & billing management is successfully completed


Primary key
Primary key
Customer
Cust_Name
Cust_ID
Cust_phone NO
Cust_City
Cust_amountpaid
Primary key (PK)
Bill
Price
Bid
Cust Name
Logic
Admin ID
Password
Mobile
Mobile_Name
Mobile price
phone ID
→ Primary key (PK)
→ foreign key (FK)

1.1 Convert ER Diagram into Relationship Model

Aim: To convert an er Diagram into a Relationship model for a mobile phone purchase database management system

Steps for Converting the er-Diagram to table

⇒ entity type becomes a table

⇒ All single valued attribute becomes a column for the table

⇒ A key attribute of the entity type represented

⇒ The multivalued attributed is represented by a seperate table

⇒ Composite attribute represented by components

⇒ Derived these rules, you can Convert the er diagram to tables and colums and assigh the mapping.

VEL TECH	
EX NO.	1b
PERFORMANCE (5)	5
RESULT AND ANALYSIS (5)	5
VIVA VOCE (5)	0
RECORD (5)	—
TOTAL (20)	10
SIGN WITH DATE	19/8

Result: Thus the conversion of an er Diagram into in Relationship model for a mobilephone purchase database manginment System way drawn Successfully.