Date: 29/7/25 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:

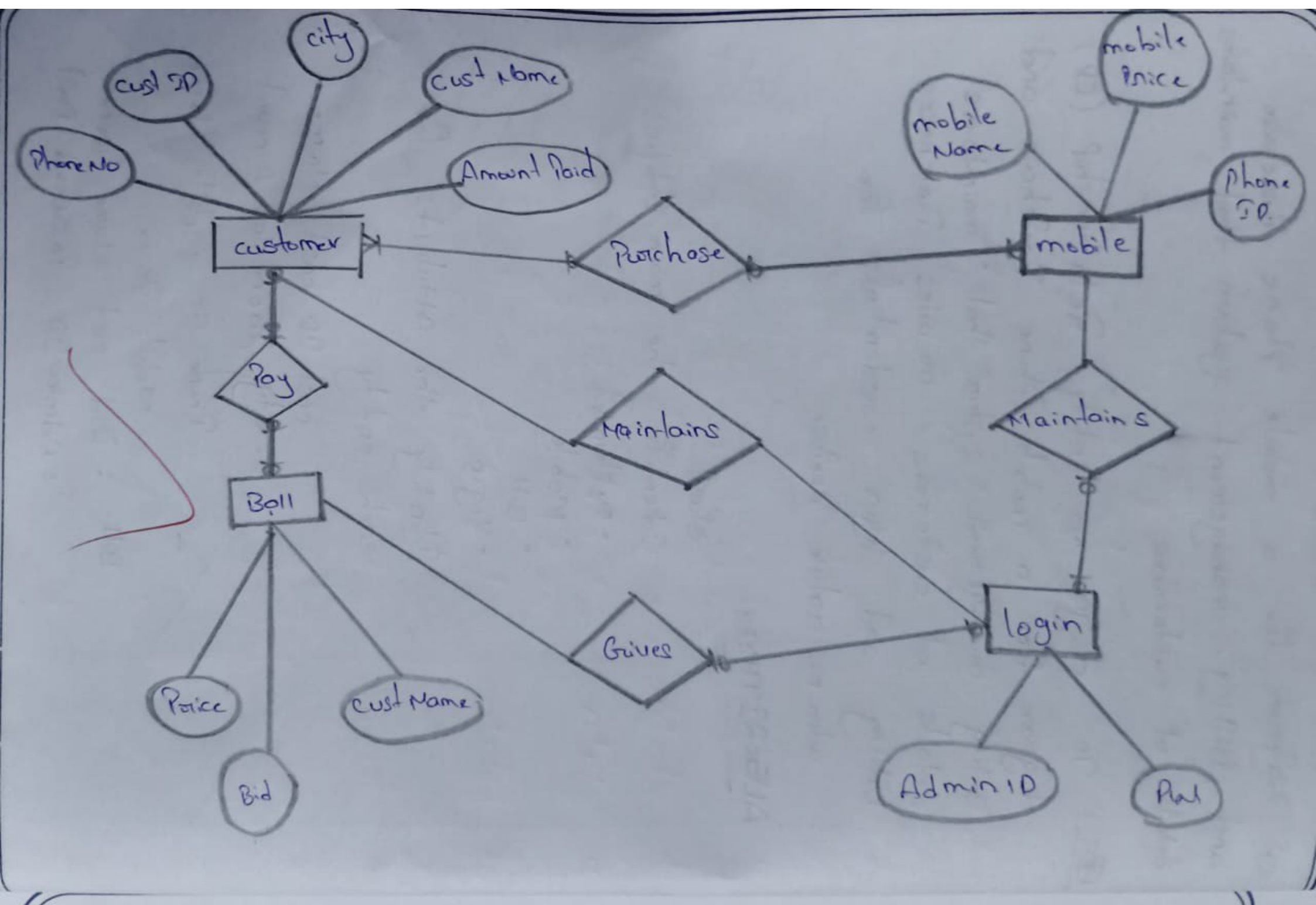
Start
Identify the main entities
- Customer
- Mobile
- Bill
- login

Identify the Attributes for each entity

Cust ID cast Name
City PhoneNo Amount

Phone ID Mobile Name
Mobile Price

Bill : Bid cust Name Price
: Admin ID Password (Pwd).


city
Cust ID
Cust Name
Phone NO
Amount Paid
customer
Purchase
mobile
mobile Price
mobile Name
Phone ID
Pay
Maintains
Maintains
Bill
Gives
login
Price
Cust Name
Bid
Admin ID
Pwd

step 3: Identify Relationship between Entities

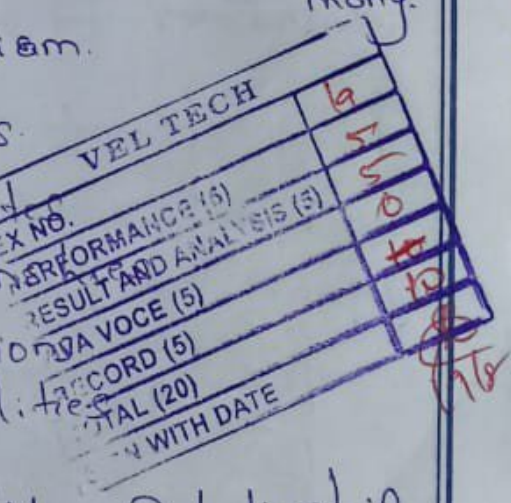
- customer - Purchase - Mobile : A customer can Purchases one (or) mobiles
- customer - Pay - Bill : A customer Pays and receive bill
- Bill - gives - login : A bill is given by a login ladmin account
- Logic maintains - customer mobile. Admin maintains customer and mobile data.

step 4 : Determine cardiality.

- 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 5 : Draw the ER Diagram.

Rectangles : Entities
Ellipses : Attribut
Diamonds : Relation
Lines : connection
symbols : cardinalities




Result: Thus the design an entity Relationship diagram for a mobile Phone Purchase and billing management is successfully completed.

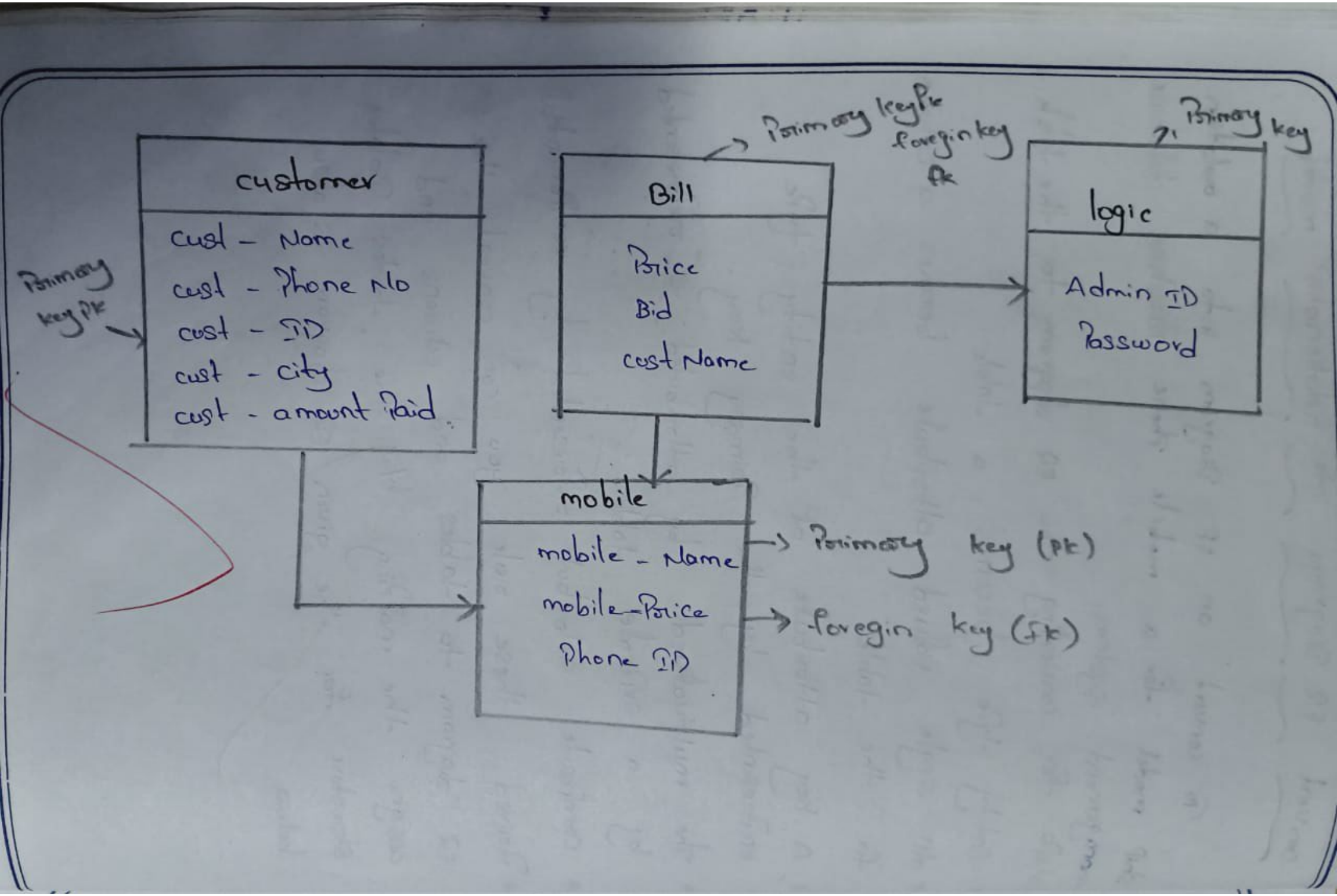
Date: 29/7/25 Task - 1.2

## convert ER Diagram into Relationship model

To convert an EF Diagram into a relation ship model for a mobile phone ~~Reaches~~ database management system.

steps for converting the ER diagram to the table

* Entity type becomes a table
* All single valued attribute becomes a column for the table
* A key attribute of the entity type represented by the primary key.
* the multivalued by attributed is represented by a seperate table.
* composite attribute represented by components
* Revived these rule you can convert the ER diagram to tables and columns and assign the mapping btw the tables Tables Structure for the given ER diagram is also below


customer
Cust - Name
cust - Phone No
cust - ID
cust - city
cust - amount Paid
Primary key PK
Bill
Price
Bid
cust Name
Primary key Pk
foregin key
fk
logic
Admin ID
Password
Primary key
mobile
mobile - Name
mobile - Price
Phone ID
Primary key (PK)
foregin key (fk)

| VEL TECH | |
|---|---|
| EX NO. | 11b |
| 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 mobile Phone Purchase data base manggement system was drawn successfully.