

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

Aim:- To design an 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:-

Step - 1:- Start

Step - 2:- Identify the main entities

- Customer
- mobile
- Bill
- Login

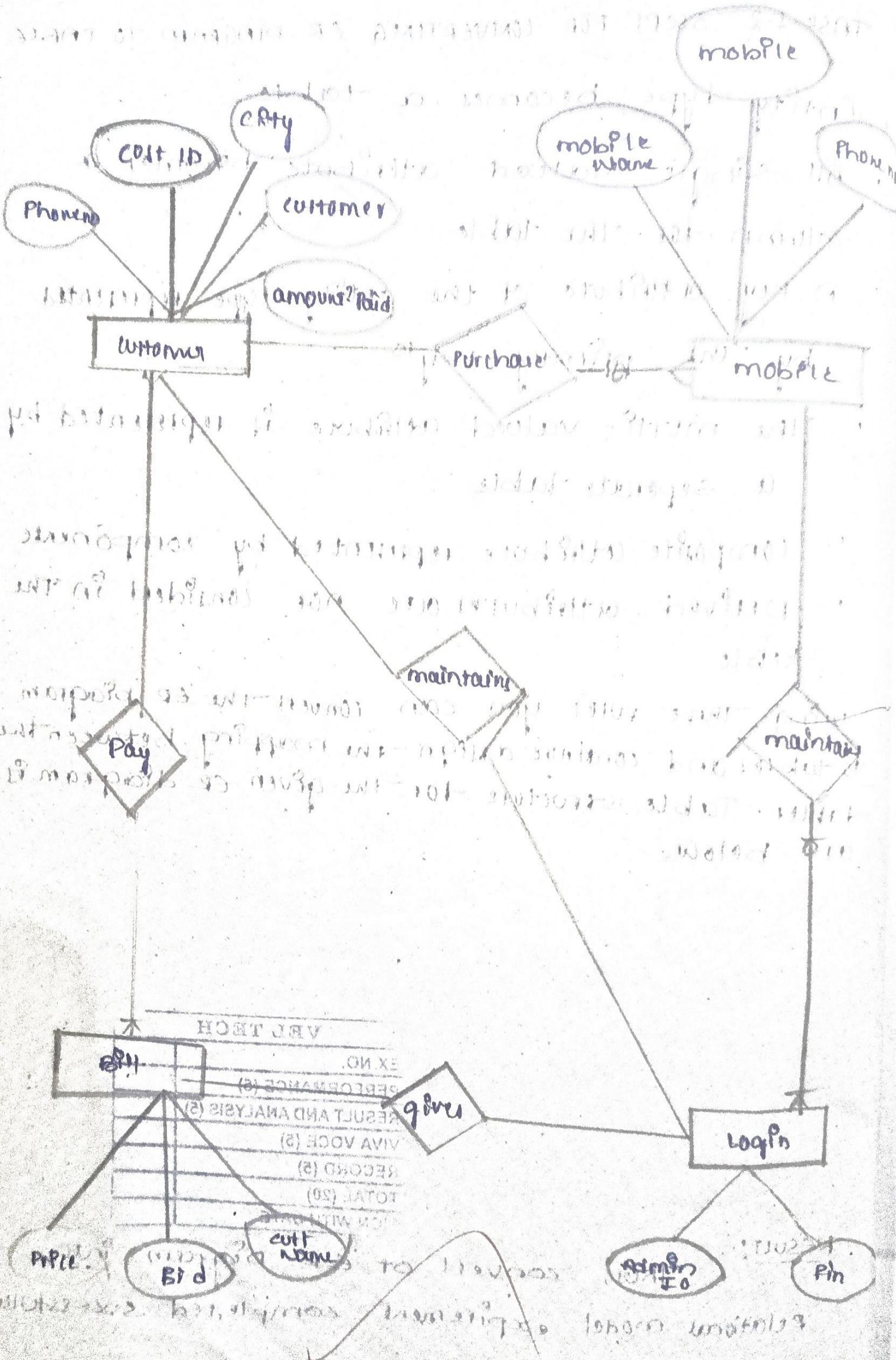
Step - 3:- Identify the attributes for each entity.

- Customer :- Cust ID, Cust Name, City, Phone No, Amount
- mobile :- Phone ID, mobile Name, City, Phone No, Name mobile, Price
- Bill :- Bid, Cust Name, Price
- Login :- Admin ID, Password (Pw)

Step - 4:- Identify Relationship between entities

Customer - purchase mobile :- A customer can purchase one or more mobile

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



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BILL-giver-login: A bill is given by a login admin account.

- login maintains - customer/mobile & Admin maintains customer and mobile data.

Step 5 :- Determine cardinality

- customer to mobile many to many
- customer to bill - one to one or one to many
- login to bill one to many
- login to mobile/customer!

Step 6 :- Draw the ER Diagram.

Rectangles = Entities

Ellipses = Attributes

Diamonds = Relationships

Lines = Connections

Symbol = Coordinator

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

RESULT :- Thus the design an entity. Relation-

ER diagram for a mobile phone purchase and billing management is successfully completed.

Date 29/7/25

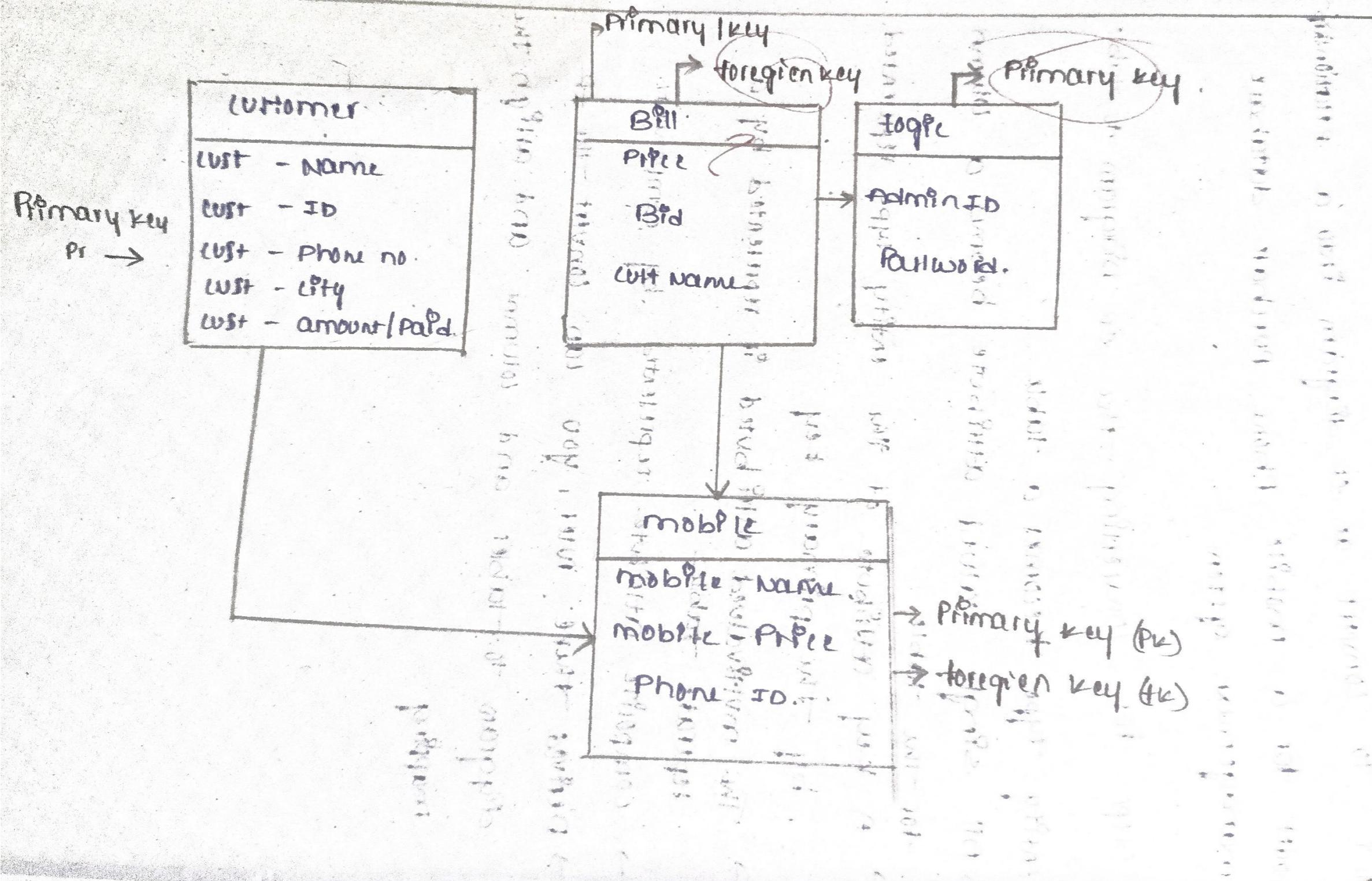
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TASK 2: CONVERT ER Diagram Into relationship model.

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 by the primary key
- The multivalued attribute is represented by a separate table
- composite attribute represented by components
- Derived there will you can convert the er diagram to tables and columns and align 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	8

RESULT:-

Thus The conversion of an er diagram
proto a relationship model for a mobile phone
Purchase database management system was drawn
successfully.