TASK 2: ?

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 purposes
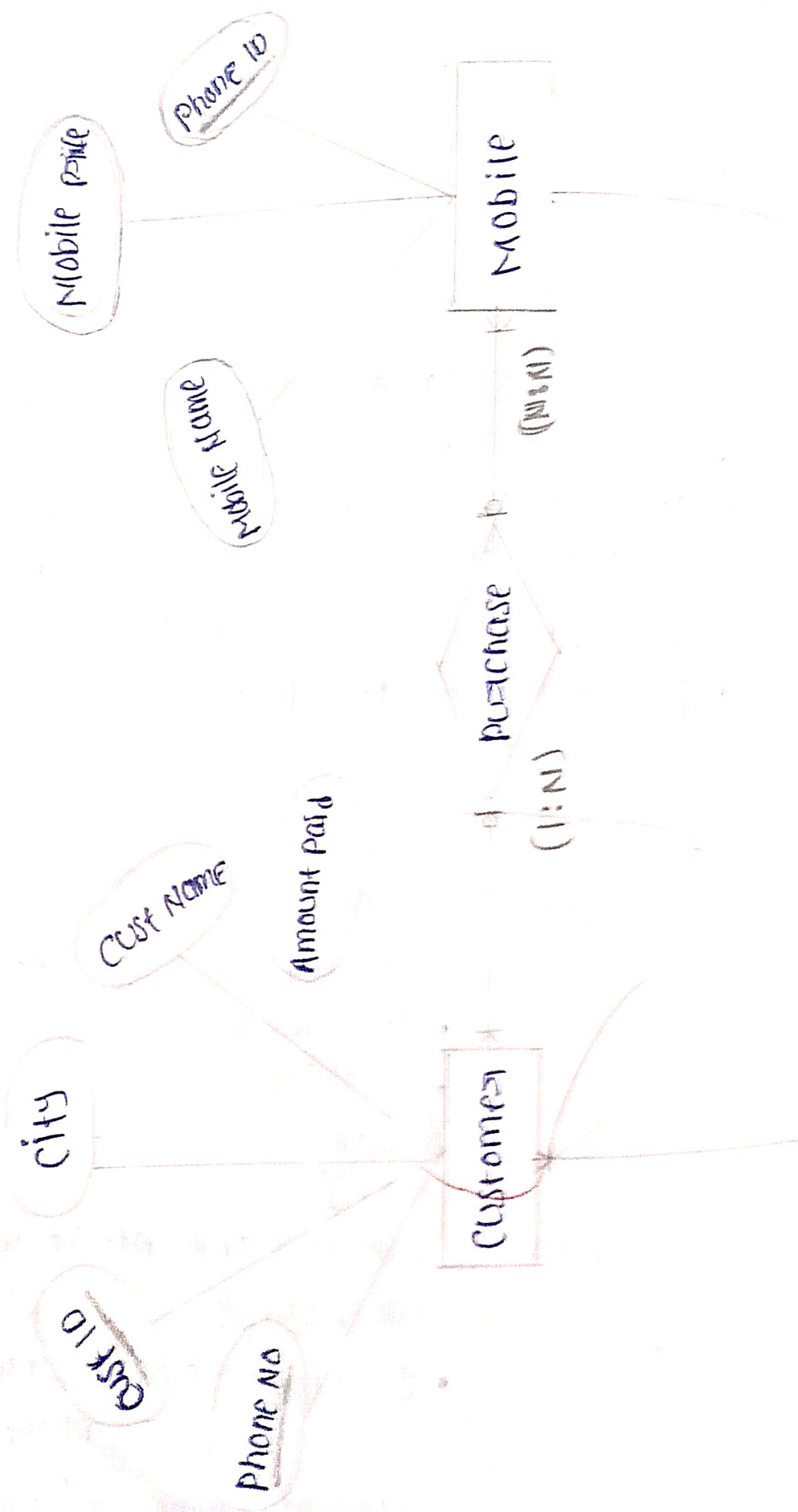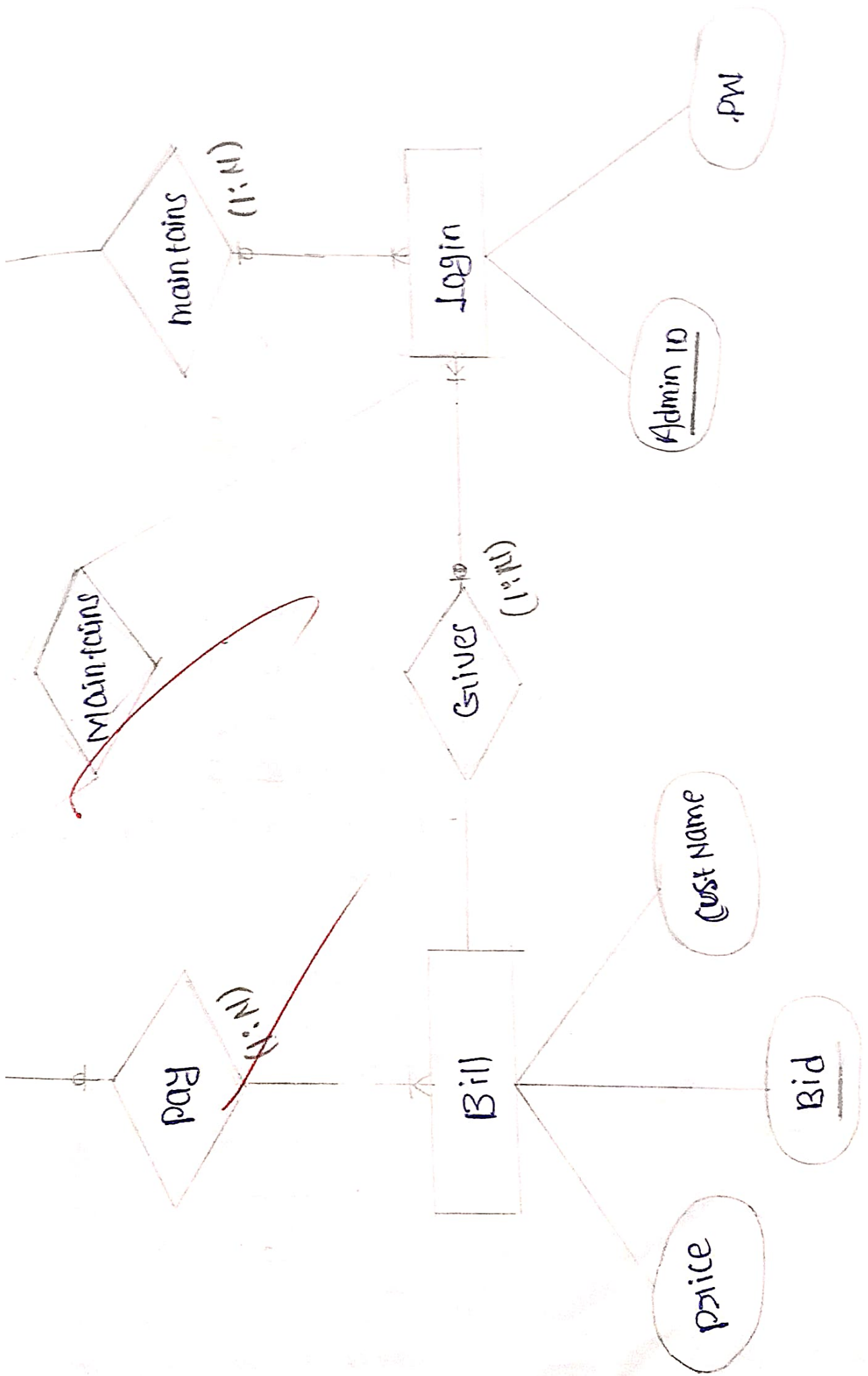
ALGORITHM:

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, phoneNo, Amount

- Mobile: phone ID, Mobile Name, Mobile price.

ER Diagram

Mobile Entity
- Phone ID
- Mobile Price
- Mobile Name

Mobile (entity)

Customer Entity
- Cust Name
- City
- Cust ID
- Phone No

Customer (entity)

Relationship
- Amount Paid
- **Purchase** (relationship)
- (1 : N)
- (N : M)

ER Diagram with entities: Login, Bill

Login entity attributes: Admin ID (key), PW

Bill entity attributes: Cust Name, Bid (key), Price

Relationships:
- maintains (1:N)
- Maintains
- Gives (1:N)
- Pay (N:N)

- Bill : Bid, cust Name, Price
- login : Admin ID, password (PW)

Step 3 : Identify Relationship between 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 maintains customer and mobile de

Step 4 : Determine Cardinality

- Customer to mobile : Many - to- many
- Customer to bill : one - to - one or one-to-r
- login to Bill : one - to - many
- login to mobile / customer : one-to-man

Step 5 : Draw the ER Diagram.

- Rectangles = Entities
- Ellipses = Attributes
- Diamonds = Relationships
- lines = connections
- Symbols = cardinalities

VEL TECH	
EX NO.	
PERFORMANCE (5)	5
RESULT AND ANALYSIS (5)	7
VIVA VOCE (5)	3
RECORD (5)	-
TOTAL (20)	13
SIGN WITH DATE	

VEL TECH	
EX No.	
PERFORMANCE (5)	
RESULT AND ANALYSIS (3)	
VIVA VOCE (3)	
RECORD (4)	
TOTAL (15)	

Result: Thus the design an Entity Relat
diagram for a mobile phone purchase and
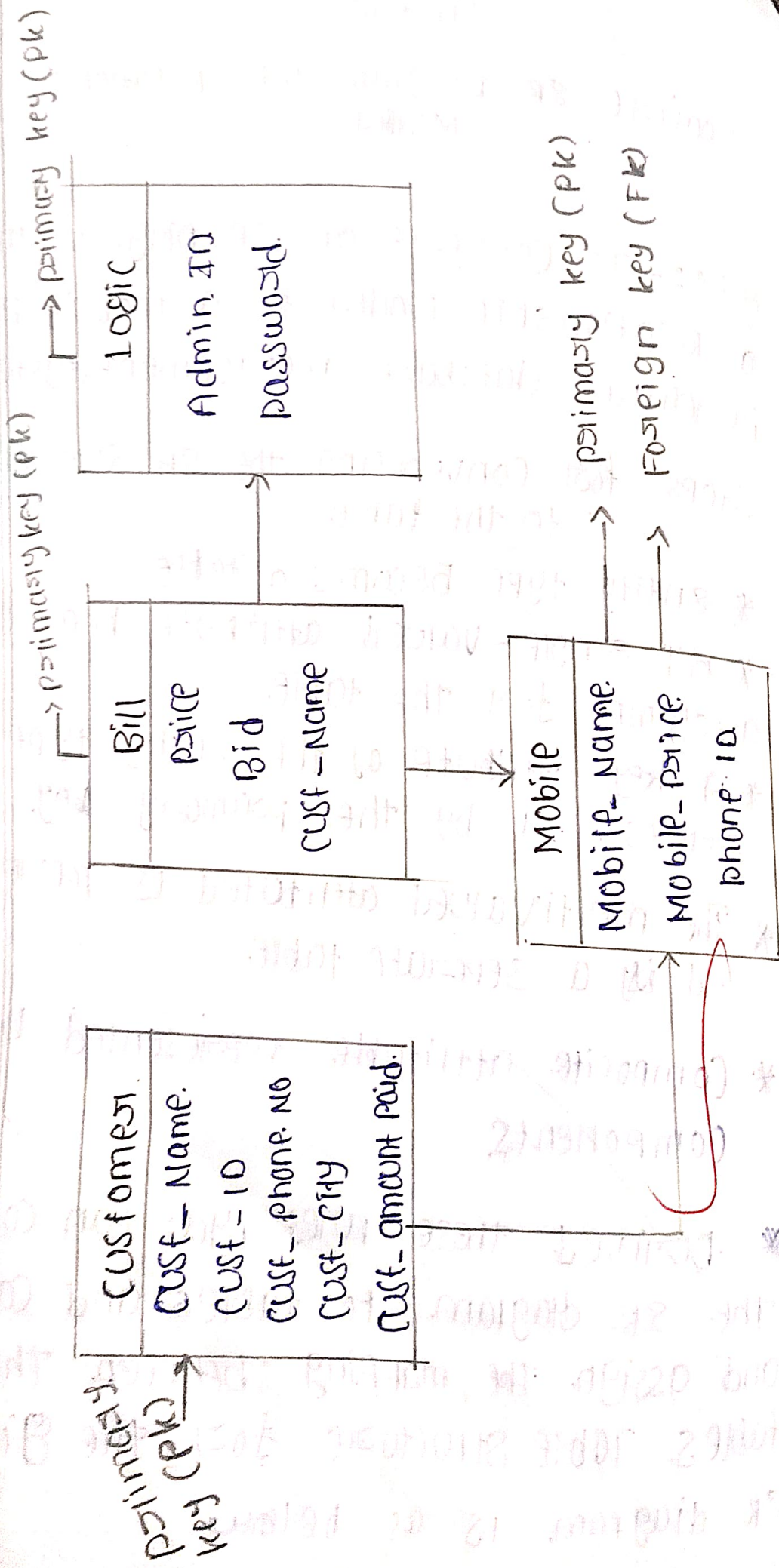billing management is successfully completed

Task 1.2

Convert ER Diagram into Relationship Model

AIM:- To convert an ER Diagram into a Relationship Model for a mobile phone purchases 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 attributed is represented by a seperate table.

* Composite attribute represented by components.

* Derived these rules, you can convert the ER. diagram to tables and colum and assign the mapping between. the tables. Table structure for the given ER diagram is as below.

Customer
- Cust_Name.
- Cust_ID ← primary key (PK)
- Cust_Phone No
- Cust_City
- Cust_Amount Paid.

Bill → primary key (PK)
- Price
- Bid
- Cust-Name

Logic → primary key (PK)
- Admin ID
- Password

Mobile
- Mobile_Name ← primary key (PK)
- Mobile_Price
- Phone ID ← Foreign key (FK)

VEL TECH	
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PERFORMANCE (5)	2
RESULT AND ANALYSIS (5)	
VIVA VOCE (5)	13
RECORD (5)	
TOTAL (20)	
SIGN WITH DATE	

28/01/23

VEL TECH	
EX No.	
PERFORMANCE (5)	
RESULT AND ANALYSIS (3)	
VIVA VOCE (3)	
RECORD (4)	
TOTAL (15)	
SIGN WITH DATE	

Result:-

Thus, the conversion of an ER diagram into a relationship model of a mobile phone purchases data base management system. was drawn successfully