A

Project Report

on

"Digital Payment"

DEVELOPED BY:

KOLADIYA MONIKA SURESHBHAI - Department of IT, DD University KALOLA SUNNY JITENDRABHAI - Department of IT, DD University

GUIDED BY:

PROF. SUNIL K. VITHLANI

Department of Information Technology Faculty of Technology

DDU University

DHARMSINH DESAI UNIVERSITY NADIAD-387001, GUJARAT



CERTIFICATE

This is to certify that the project entitled "<u>DIGITAL PAYMENT</u>" is abonafied report of the work carried out by

1) Miss. <u>KOLADIYA MONIKA SURESHBHAI</u>, Student ID No: <u>17ITUOD003</u>

2) Mr. KALOLA SUNNY JITENDRABHAI

Student ID No: 16ITUOS106

of Department of Information Technology, semester V, under the guidance and supervision for the subject Database Management System. They were involved in Project training during academic year 2018-2019.

Prof. Sunil K. Vithlani (Project Guide) Department of Information Technology, Faculty of Technology, Dharmsinh Desai University, Nadiad Date:

Prof. Vipul Dabhi Head , Department of Information Technology, Faculty of Technology, Dharmsinh Desai University, Nadiad Date:

Acknowledgement

On completion of project we would like to express our sincere thanks to all those who have guide, advised, inspired and supported during our project work.

Every work that one completes successfully stands on the constants encouragement, good will and support of the people around. We, hereby, avail this opportunity to express our heartfelt gratitude to a number of people who extended their valuable time, full support and cooperation in developing this project.

We are hearty thankful to the qualified staff of the centre and especially to our lab faculty Prof. Sunil K. Vithlani. We believe that his computer expertise and valuable guidance have made it possible to present such nice project report.

Thanking you.

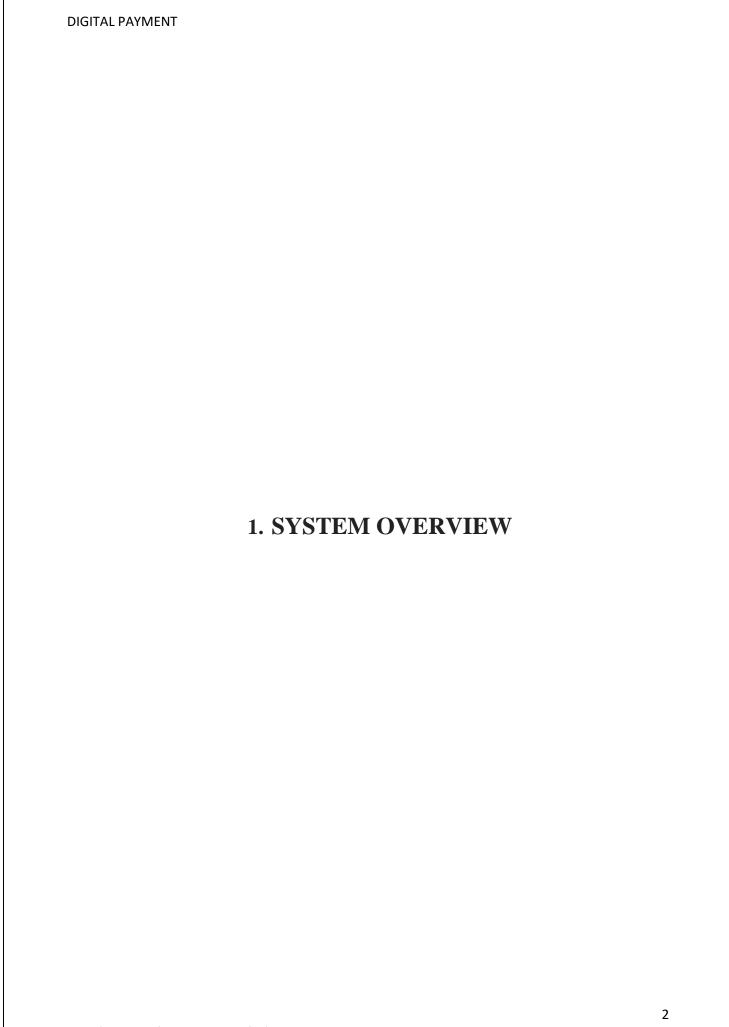
Yours Sincerely,

KOLADIYA MONIKA SURESHBHAI (IT - 53)

KALOLA SUNNY JITENDRABHAI (IT - 48)

Index

| I. Certificate | II |
|---|----|
| II. Acknowledgement | Ш |
| 1. SYSTEM OVERVIEW | 2 |
| 1.1 Current system | 3 |
| 1.2 Objectives of the Proposed System | 4 |
| 1.3 Advantages of the Proposed system (over current) | 5 |
| 2. E-R DIAGRAM | 6 |
| 2.1 Entities | |
| 2.2 Relationships | |
| 2.3 Mapping Constraints | |
| 3. DATA DICTIONARY | 10 |
| 4. SCHEMA DIAGRAM | 14 |
| 5. DATABASE IMPLEMENTION | 16 |
| 5.1 Create Schema | 17 |
| 5.2 Insert Data values | 22 |
| 5.3 Queries (Based on functions, group by, having, joins, sub query etc.) | 34 |
| 5.4 PL/SQL Blocks (Procedures and Functions) | 37 |
| 5.5 Views | 41 |
| 5.6 Triggers | 42 |
| 5.7 Cursors. | 44 |
| 6. FUTURE ENHANCEMENTS OF THE SYSTEM | 48 |
| 7. BIBLIOGRAPHY | 50 |



1.1 Current System

This is a project based on PL/SQL language. In this, one can easily manage the Payments/Transactions which are done by his/her self for various catogories like movie ticket, mobile recharge, gas/electricity bills etc. and also it contains many procedures to manage database. All updates done on data items is reflected on database. It also contains triggers and cursors for managing the payments.

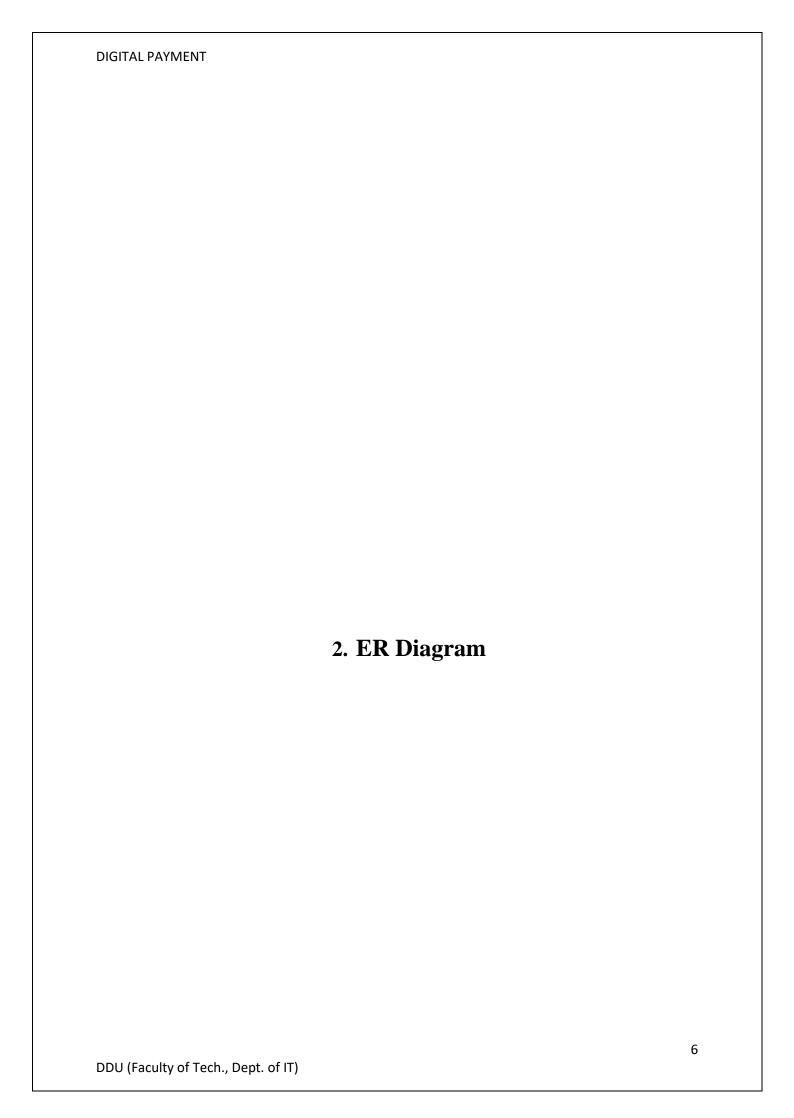
1.2 Objectives of the Proposed System

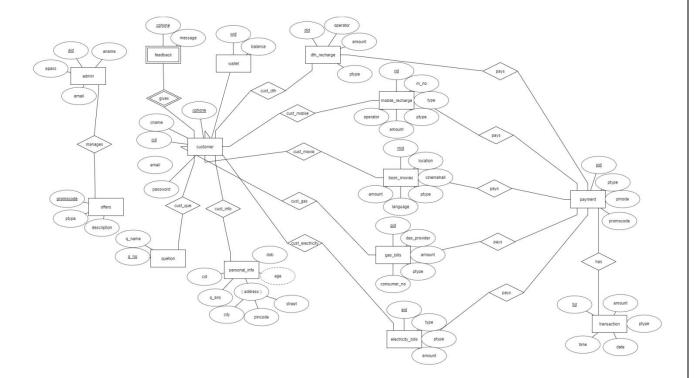
- 1. Automate and facilitate process of managing payments.
- 2. Getting the all transactions made by User.
- 3. Various offers and Promo-codes can be applicable.
- 4. Users's Transaction informations.

1.3Advantages of the proposed system

Some important features and benefits of Digital Payment system are:

- Unique and fully branded design.
- Very important design for success i.e. Responsive design
- Proper management of transactions for each user.
- Allowing user to scope out information of his/her payment easily.
- One can also apply promo-code for his/her payment based on type of payment.
- Proper management of all various payments.
- One can easily maintain record of his /her Transactions/Payments.





2.1 Entities

- Admin
- Customer
- Personal_info
- Dth_recharge
- Book_movies
- Mobile_recharge
- Electricity_bills
- Gass_bills
- Offers
- Wallet
- Quetions
- Feedback
- Payment
- Transaction

2.2 Relationships

- Customer has one to one relationship with personal info (Relationship name : c_info)
- Payment has one to one relationship with Transaction (Relationship name : has)
- Customer has one to many relationship with book_movies,mobile recharge, etc. (Relationship name : pays_for)
- Customer has one to one relationship with wallet (Relationship name : has)
- DTH recharge has one to one relationship with payment (Relationship name : pays)
- Admin has one to many relationship with offers(Relationship name: manage)
- Customer has one to many relationship with feedback(Relationship name:gives)

| DIGITAL PAYMENT | |
|--------------------|--|
| | |
| 3. DATA DICTIONARY | |
| | |
| | |
| 10 | |

| Table | Column | Data Type | Length | Precision | Scale | Primary Key | Nullable | Default | Comment |
|--------------|---------------|-----------|--------|-----------|-------|-------------|----------|---------|---------|
| <u>ADMIN</u> | <u>AID</u> | VARCHAR2 | 5 | - | - | 1 | - | - | - |
| | <u>ANAME</u> | VARCHAR2 | 20 | - | - | - | - | - | - |
| | <u>APASS</u> | VARCHAR2 | 20 | - | - | - | - | - | - |
| | <u>AEMAIL</u> | VARCHAR2 | 40 | - | - | - | - | - | - |
| | | | | | | | | 1 | - 4 |

| Table | Column | Data Type | Length | Precision | Scale | Primary Key | Nullable | Default | Comment |
|----------|---------------|-----------|--------|-----------|-------|-------------|----------|---------|---------|
| CUSTOMER | CID | VARCHAR2 | 5 | - | - | 1 | - | - | - |
| | CNAME | VARCHAR2 | 20 | - | - | - | - | - | - |
| | <u>CPHONE</u> | NUMBER | - | 10 | 0 | - | ~ | - | - |
| | PASSWORD | VARCHAR2 | 20 | - | - | - | - | - | - |
| | EMAIL | VARCHAR2 | 30 | - | - | - | - | - | - |
| | | | | | | | | 1 | - 5 |

| Table | Column | Data Type | Length | Precision | Scale | Primary Key | Nullable | Default | Comment |
|---------------|---------|-----------|--------|-----------|-------|-------------|----------|---------|---------|
| PERSONAL_INFO | CITY | VARCHAR2 | 20 | - | - | - | - | - | - |
| | PINCODE | VARCHAR2 | 20 | - | - | - | - | - | - |
| | STREET | VARCHAR2 | 20 | - | - | - | - | - | - |
| | Q ANS | VARCHAR2 | 50 | - | - | - | - | - | - |
| | CID | VARCHAR2 | 5 | - | - | - | - | - | - |
| | | | | | | | | 1 | - 5 |

| Table | Column | Data Type | Length | Precision | Scale | Primary Key | Nullable | Default | Comment |
|-------------|------------|-----------|--------|-----------|-------|-------------|----------|---------|---------|
| BOOK_MOVIES | MID | VARCHAR2 | 5 | - | - | 1 | - | - | - |
| | LOCATION | VARCHAR2 | 30 | - | - | - | - | - | - |
| | LANGUAGE | VARCHAR2 | 20 | - | - | - | - | - | - |
| | CINEMAHALL | VARCHAR2 | 30 | - | - | - | - | - | - |
| | AMOUNT | NUMBER | - | 20 | 0 | - | ~ | - | - |
| | PTYPE | VARCHAR2 | 20 | - | - | - | ~ | 'movie' | - |
| | CID | VARCHAR2 | 5 | - | - | - | - | - | - |
| | | | | | | | | 1 | - 7 |

| Table | Column | Data Type | Length | Precision | Scale | Primary Key | Nullable | Default | Comment |
|--------------|-----------------|-----------|--------|-----------|-------|-------------|----------|---------|---------|
| DTH_RECHARGE | DID | VARCHAR2 | 5 | - | - | 1 | - | - | - |
| | <u>OPERATOR</u> | VARCHAR2 | 20 | - | - | - | - | - | - |
| | <u>AMOUNT</u> | NUMBER | - | 20 | 0 | - | - | - | - |
| | PTYPE | VARCHAR2 | 20 | - | - | - | ~ | 'dth' | - |
| | CID | VARCHAR2 | 5 | - | - | - | - | - | - |
| | | | | | | | | 1 | - 5 |

| Table | Column | Data Type | Length | Precision | Scale | Primary Key | Nullable | Default | Comment |
|-----------------|-----------------|-----------|--------|-----------|-------|-------------|----------|----------|---------|
| MOBILE_RECHARGE | <u>RID</u> | VARCHAR2 | 5 | - | - | 1 | - | - | - |
| | M NO | NUMBER | - | 20 | 0 | - | - | - | - |
| | <u>TYPE</u> | VARCHAR2 | 20 | - | - | - | - | - | - |
| | <u>OPERATOR</u> | VARCHAR2 | 20 | - | - | - | - | - | - |
| | PTYPE | VARCHAR2 | 20 | - | - | - | ~ | 'mobile' | - |
| | <u>AMOUNT</u> | NUMBER | - | 20 | 0 | - | - | - | - |
| | CID | VARCHAR2 | 5 | - | - | - | - | - | - |
| | | | | | | | | 1 | - 7 |

| Table | Column | Data Type | Length | Precision | Scale | Primary Key | Nullable | Default | Comment |
|-------------------|---------------|-----------|--------|-----------|-------|-------------|----------|---------------|---------|
| ELECTRICITY_BILLS | EID | VARCHAR2 | 5 | - | - | 1 | - | - | - |
| | TYPE | VARCHAR2 | 20 | - | - | - | - | - | - |
| | <u>AMOUNT</u> | NUMBER | - | 20 | 0 | - | - | - | - |
| | PTYPE | VARCHAR2 | 20 | - | - | - | ~ | 'electricity' | - |
| | CID | VARCHAR2 | 5 | - | - | - | - | - | - |
| | | | | | | | | 1 | - 5 |

| Table | Column | Data Type | Length | Precision | Scale | Primary Key | Nullable | Default | Comment |
|-----------|---------------|-----------|--------|-----------|-------|-------------|----------|---------|---------|
| GAS BILLS | GID | VARCHAR2 | 5 | - | - | 1 | - | - | - |
| | GAS_PROVIDER | VARCHAR2 | 20 | - | - | - | - | - | - |
| | CONSUMER_NO | NUMBER | - | 20 | 0 | - | - | - | - |
| | <u>AMOUNT</u> | NUMBER | - | 20 | 0 | - | - | - | - |
| | PTYPE | VARCHAR2 | 20 | - | - | - | ~ | 'gas' | - |
| | CID | VARCHAR2 | 5 | - | - | - | - | - | - |
| | | | | | | | | 1 | - 6 |

| Table | Column | Data Type | Length | Precision | Scale | Primary Key | Nullable | Default | Comment |
|---------------|--------------|-----------|--------|-----------|-------|-------------|----------|---------|---------|
| <u>OFFERS</u> | PROMOCODE | VARCHAR2 | 20 | - | - | 1 | - | - | - |
| | <u>PTYPE</u> | VARCHAR2 | 20 | - | - | - | - | - | - |
| | DESCRIPTION | VARCHAR2 | 50 | - | - | - | - | - | - |
| | | | | | | | | 1 | - 3 |

| Table | Column | Data Type | Length | Precision | Scale | Primary Key | Nullable | Default | Comment |
|--------|----------------|-----------|--------|-----------|-------|-------------|----------|---------|---------|
| WALLET | WID | VARCHAR2 | 5 | - | - | 1 | - | - | - |
| | CID | VARCHAR2 | 5 | - | - | - | - | - | - |
| | BALANCE | NUMBER | - | 20 | 0 | - | - | - | - |
| | | | | | | | | 1 | - 3 |

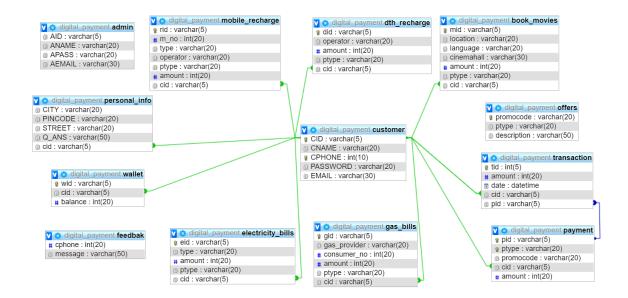
| Table | Column | Data Type | Length | Precision | Scale | Primary Key | Nullable | Default | Comment |
|----------|----------------|-----------|--------|-----------|-------|-------------|----------|---------|---------|
| FEEDBACK | <u>CPHONE</u> | NUMBER | - | 20 | 0 | - | - | - | - |
| | <u>MESSAGE</u> | VARCHAR2 | 50 | - | - | - | - | - | - |
| | | | | | | | | 1 | - 2 |

| Table | Column | Data Type | Length | Precision | Scale | Primary Key | Nullable | Default | Comment |
|---------|---------------|-----------|--------|-----------|-------|-------------|----------|---------|---------|
| PAYMENT | <u>PID</u> | VARCHAR2 | 5 | - | - | 1 | - | - | - |
| | PTYPE | VARCHAR2 | 20 | - | - | - | ~ | - | - |
| | PROMOCODE | VARCHAR2 | 20 | - | - | - | ~ | - | - |
| | CID | VARCHAR2 | 5 | - | - | - | - | - | - |
| | <u>AMOUNT</u> | NUMBER | - | 20 | 0 | - | - | - | - |
| | | | | | | | | 1 | - 5 |

| Table | Column | Data Type | Length | Precision | Scale | Primary Key | Nullable | Default | Comment |
|-------------|---------------|-----------|--------|-----------|-------|-------------|----------|---------|---------|
| TRANSACTION | TID | NUMBER | - | 5 | 0 | 1 | - | - | - |
| | <u>AMOUNT</u> | NUMBER | - | 20 | 0 | - | - | - | - |
| | T_DATE | DATE | 7 | - | - | - | - | - | - |
| | CID | VARCHAR2 | 5 | - | - | - | - | - | - |
| | <u>PID</u> | VARCHAR2 | 5 | - | - | - | - | - | - |
| | | | | | | | | 1 | - 5 |

| Table | Column | Data Type | Length | Precision | Scale | Primary Key | Nullable | Default | Comment |
|---------|--------|-----------|--------|-----------|-------|-------------|----------|---------|---------|
| QUETION | Q NO | VARCHAR2 | 5 | - | - | 1 | - | - | - |
| | Q_NAME | VARCHAR2 | 50 | - | - | - | - | - | - |
| | | | | | | | | 1 | - 2 |

| DIGITAL PAYMENT | | |
|------------------------------|-------------------|----|
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | 4. SCHEMA DIAGRAM | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | 14 |
| DDU (Faculty of Tech., Dept. | of IT) | |



| DIGITAL PAYMENT | | |
|-----------------|---------------------------|--|
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | 5. DATABASEIMPLEMENTATION | |

5.1CREATE TABLES:

1. Admin

```
CREATE TABLE admin(
 aid varchar(5) PRIMARY KEY,
 aname varchar(20) NOT NUll,
 apass varchar(20) NOT Null,
 aemail varchar(40) NOT Null
);
2. Customer
CREATE TABLE customer(
  cid varchar(5),
  cname varchar(20) NOT NULL,
  cphone number(10),
  password varchar(20) NOT NULL,
  email varchar(30) NOT NULL,
  PRIMARY KEY(cid,cphone)
);
3. Personal_info
CREATE TABLE personal_info(
  city varchar(20) NOT NULL,
  pincode varchar(20) NOT NULL,
  street varchar(20) NOT NULL,
  q_ans varchar(50) NOT NULL,
  cid varchar(5) NOT NULL
);
```

4. dth_recharge

```
CREATE TABLE dth_recharge(
  did varchar(5) PRIMARY KEY,
  operator varchar(20) NOT NULL,
  amount number(20) NOT NULL,
  ptype varchar(20) DEFAULT 'dth',
  cid varchar(5) NOT NULL
);
5.book_movies
CREATE TABLE book_movies(
 mid varchar(5) PRIMARY KEY,
  location varchar(5) NOT NULL,
  language varchar(20) NOT NULL,
  cinemahall varchar(20) NOT NULL,
  amount number(20),
  ptype varchar(20) DEFAULT 'movie',
  cid varchar(5) NOT NULL
);
6.mobile_recharge
CREATE TABLE mobile_recharge(
  rid varchar(5) PRIMARY KEY,
  m_no number(20) NOT NULL,
  type varchar(20) NOT NULL,
  operator varchar(20) NOT NULL,
  ptype varchar(20) DEFAULT 'mobile',
  amount number(20) NOT NULL,
  cid varchar(5) NOT NULL
```

```
DIGITAL PAYMENT
);
7.electricity_bills
CREATE TABLE electricity_bills(
  eid varchar(5) PRIMARY KEY,
  type varchar(20) NOT NULL,
  amount number(20) NOT NULL,
  ptype varchar(20) DEFAULT 'electricity',
  cid varchar(5) NOT NULL
);
8.gass_bills
CREATE TABLE gas_bills(
  gid varchar(5) PRIMARY KEY,
  gas_provider varchar(20) NOT NULL,
  consumer_no number(20) NOT NULL,
  amount number(20) NOT NULL,
  ptype varchar(20) DEFAULT 'gas',
  cid varchar(5) NOT NULL
);
9.offers
CREATE TABLE offers(
  promocode varchar(20) PRIMARY KEY,
  ptype varchar(20) NOT NULL,
  description varchar(50) NOT NULL
);
```

```
10.quetions
CREATE TABLE wallet(
  wid varchar(5) PRIMARY KEY,
  cid varchar(5) NOT NULL,
  balance number(20) NOT NULL
);
11.feedback
CREATE TABLE feedback(
      cphone number(20) NOT NULL,
  message varchar(50) NOT NULL
);
12.payment
CREATE TABLE payment(
  pid varchar(5),
  ptype varchar(20),
  promocode varchar(20),
  cid varchar(5) NOT NULL,
  amount number(20) NOT NULL,
  PRIMARY KEY(pid,ptype)
);
13.transaction
CREATE TABLE transaction(
  tid number(5) PRIMARY KEY,
  amount number(20) NOT NULL,
  t_date date NOT NULL,
  cid varchar(5) NOT NULL,
  pid varchar(5) NOT NULL
```

DIGITAL PAYMENT); 14.wallet CREATE TABLE wallet(wid varchar(5) PRIMARY KEY, cid varchar(5) NOT NULL, balance number(20) NOT NULL);

5.2 INSERT DATA:

1.admin

INSERT ALL

INTO admin (AID, ANAME, APASS, AEMAIL) VALUES ('A001', 'monika', 'monika', 'monika@gmail.com')

INTO admin (AID, ANAME, APASS, AEMAIL) VALUES ('A002', 'sunny', 'xyz', 'xyz@gmail.com')

select * from dual;

• SELECT * FROM admin

| AID | ANAME | APASS | AEMAIL |
|------|--------|--------|------------------|
| A001 | monika | monika | monika@gmail.com |
| A002 | sunny | xyz | xyz@gmail.com |

2.customer

INSERT ALL

INTO customer (CID, CNAME, CPHONE, PASSWORD, EMAIL) VALUES ('C001', 'monika', '1234567890', 'monika', 'monika@gmail.com')

INTO customer (CID , CNAME , CPHONE , PASSWORD , EMAIL) VALUES ('C002', 'bhavna', '234567890', 'bhavna', 'bhavna@gmail.com')

INTO customer (CID, CNAME, CPHONE, PASSWORD, EMAIL) VALUES ('C003', 'apexa', '34567890', 'apexa', 'apexa@gmail.com')

INTO customer (CID, CNAME, CPHONE, PASSWORD, EMAIL) VALUES ('C004', 'mina', '4567890', 'mina', 'mina@gmail.com')

INTO customer (CID, CNAME, CPHONE, PASSWORD, EMAIL) VALUES ('C005', 'riya', '5678901', 'riya', 'riya@gmail.com')

INTO customer (CID, CNAME, CPHONE, PASSWORD, EMAIL) VALUES ('C006', 'jiiya', '678901', 'jiiya', 'jiiya@gmail.com')

INTO customer (CID, CNAME, CPHONE, PASSWORD, EMAIL) VALUES ('C007', 'apexa', '34567890', 'apexa', 'apexa@gmail.com')

INTO customer (CID , CNAME , CPHONE , PASSWORD , EMAIL) VALUES ('C008', 'bhavna', '234567890', 'bhavna', 'bhavna@gmail.com')

INTO customer (CID, CNAME, CPHONE, PASSWORD, EMAIL) VALUES ('C009', 'priya', '890123', 'priya', 'priya@gmail.com')

INTO customer (CID, CNAME, CPHONE, PASSWORD, EMAIL) VALUES ('C010', 'siya', '910203', 'siya', 'siya@gmail.com')

select * from dual;

• SELECT * FROM customer

| CID | CNAME | CPHONE | PASSWORD | EMAIL |
|------|--------|------------|----------|------------------|
| C001 | monika | 1234567890 | monika | monika@gmail.com |
| C002 | bhavna | 234567890 | bhavna | bhavna@gmail.com |
| C003 | apexa | 34567890 | apexa | apexa@gmail.com |
| C004 | mina | 4567890 | mina | mina@gmail.com |
| C005 | riya | 5678901 | riya | riya@gmail.com |
| C006 | jiiya | 678901 | jiya | jiya@gmail.com |
| C007 | apexa | 34567890 | apexa | apexa@gmail.com |
| C008 | bhavna | 234567890 | bhavna | bhavna@gmail.com |
| C009 | priya | 890123 | priya | priya@gmail.com |
| C010 | siya | 910203 | siya | siya@gmail.com |

3.personal info

INSERT ALL

INTO personal_info (CITY, PINCODE, STREET, Q_ANS, cid) VALUES ('surat', '395006', 'christian', 'red', 'C001')

INTO personal_info (CITY, PINCODE, STREET, Q_ANS, cid) VALUES ('nadiad', '387001', 'station', 'pink', 'C002')

INTO personal_info (CITY, PINCODE, STREET, Q_ANS, cid) VALUES ('baroda', '300018', 'vishwamaitri', 'black', 'C003')

INTO personal_info (CITY, PINCODE, STREET, Q_ANS, cid) VALUES ('surat', '395006', 'dumas', 'black', 'C004')

INTO personal_info (CITY , PINCODE , STREET , Q_ANS , cid) VALUES ('vapi', '395006', 'shrinagar', 'white', 'C005')

INTO personal_info (CITY , PINCODE , STREET , Q_ANS , cid) VALUES ('valsad', '395046', 'kalpna', 'white', 'C006')

INTO personal_info (CITY, PINCODE, STREET, Q_ANS, cid) VALUES ('vapi', '398003', 'bhagwati', 'red', 'C007')

INTO personal_info (CITY, PINCODE, STREET, Q_ANS, cid) VALUES ('surat', '398007', 'station', 'red', 'C008')

INTO personal_info (CITY , PINCODE , STREET , Q_ANS , cid) VALUES ('baroda', '395001', 'civil', 'bluu', 'C009')

INTO personal_info (CITY, PINCODE, STREET, Q_ANS, cid) VALUES ('nadiad', '387001', 'college', 'white', 'C010')

select * from dual;

• SELECT * FROM personal_info

| CITY | PINCODE | STREET | Q_ANS | CID |
|--------|---------|--------------|-------|------|
| surat | 395006 | christian | red | C001 |
| nadiad | 387001 | station | pink | C002 |
| baroda | 300018 | vishwamaitri | black | C003 |
| surat | 395006 | dumas | black | C004 |
| vapi | 395006 | shrinagar | white | C005 |
| valsad | 395046 | kalpna | white | C006 |
| vapi | 398003 | bhagwati | red | C007 |
| surat | 398007 | station | red | C008 |
| baroda | 395001 | civil | bluu | C009 |
| nadiad | 387001 | college | white | C010 |

4.dth_recharge

INSERT ALL

INTO dth_recharge (did , operator , amount , ptype , cid) VALUES ('D01', 'airtel', '250', 'dth', 'C001')

INTO dth_recharge (did , operator , amount , ptype , cid) VALUES ('D02', 'dishTV', '1000', 'dth', 'C005')

INTO dth_recharge (did, operator, amount, ptype, cid) VALUES ('D03', 'reliance', '350', 'dth', 'C004')

INTO dth_recharge (did, operator, amount, ptype, cid) VALUES ('D04', 'airtel', '450', 'dth', 'C006')

INTO dth_recharge (did , operator , amount , ptype , cid) VALUES ('D05', 'airtel', '490', 'dth', 'C008')

INTO dth_recharge (did, operator, amount, ptype, cid) VALUES ('D06', 'videocon', '399', 'dth', 'C005')

INTO dth_recharge (did , operator , amount , ptype , cid) VALUES ('D07', 'TATAsky', '100', 'dth', 'C008')

INTO dth_recharge (did, operator, amount, ptype, cid) VALUES ('D08', 'airtel', '180', 'dth', 'C008')

INTO dth_recharge (did , operator , amount , ptype , cid) VALUES ('D09', 'videocon', '290', 'dth', 'C005')

INTO dth_recharge (did, operator, amount, ptype, cid) VALUES ('D10', 'TATAsky', '300', 'dth', 'C007')

select * from dual;

SELECT * FROM dth_recharge

| DID | OPERATOR | AMOUNT | PTYPE | CID |
|-----|----------|--------|-------|------|
| D01 | airtel | 250 | dth | C001 |
| D02 | dishTV | 1000 | dth | C005 |
| D03 | reliance | 350 | dth | C004 |
| D04 | airtel | 450 | dth | C006 |
| D05 | airtel | 490 | dth | C008 |
| D06 | videocon | 399 | dth | C005 |
| D07 | TATAsky | 100 | dth | C008 |
| D08 | airtel | 180 | dth | C008 |
| D09 | videocon | 290 | dth | C005 |
| D10 | TATAsky | 300 | dth | C007 |

5.book_movies

INSERT ALL

INTO book_movies (mid, location, language, cinemahall, amount, ptype, cid) VALUES ('M01', 'surat', 'english', 'PVR', '250', 'movie', 'C002')

INTO book_movies (mid, location, language, cinemahall, amount, ptype, cid) VALUES ('M02', 'surat', 'gujrati', 'INOX', '300', 'movie', 'C004')

INTO book_movies (mid, location, language, cinemahall, amount, ptype, cid) VALUES ('M03', 'baroda', 'hindi', 'valentine', '450', 'movie', 'C001')

INTO book_movies (mid, location, language, cinemahall, amount, ptype, cid) VALUES ('M04', 'vesu', 'hindi', 'vaishali', '250', 'movie', 'C009')

INTO book_movies (mid, location, language, cinemahall, amount, ptype, cid) VALUES ('M05', 'nadiad', 'english', 'INOX', '350', 'movie', 'C002')

INTO book_movies (mid, location, language, cinemahall, amount, ptype, cid) VALUES ('M06', 'nadiad', 'hindi', 'vaishali', '520', 'movie', 'C001')

INTO book_movies (mid, location, language, cinemahall, amount, ptype, cid) VALUES ('M07', 'baroda', 'english','PVR', '350', 'movie', 'C005')

INTO book_movies (mid, location, language, cinemahall, amount, ptype, cid) VALUES ('M08', 'nadiad', 'hindi', 'vaishali', '350', 'movie', 'C006')

INTO book_movies (mid, location, language, cinemahall, amount, ptype, cid) VALUES ('M09', 'surat', 'english','INOX', '700', 'movie', 'C003')

INTO book_movies (mid, location, language, cinemahall, amount, ptype, cid) VALUES ('M10', 'surat', 'english','PVR', '250', 'movie', 'C002')

select * from dual

• SELECT * FROM book_movies

| MID | LOCATION | LANGUAGE | CINEMAHALL | AMOUNT | PTYPE | CID |
|-----|----------|----------|------------|--------|-------|------|
| M01 | surat | english | PVR | 250 | movie | C002 |
| M02 | surat | gujrati | INOX | 300 | movie | C004 |
| M03 | baroda | hindi | valentine | 450 | movie | C001 |
| M04 | vesu | hindi | vaishali | 250 | movie | C009 |
| M05 | nadiad | english | INOX | 350 | movie | C002 |
| M06 | nadiad | hindi | vaishali | 520 | movie | C001 |
| M07 | baroda | english | PVR | 350 | movie | C005 |
| M08 | nadiad | hindi | vaishali | 350 | movie | C006 |
| M09 | surat | english | INOX | 700 | movie | C003 |
| M10 | surat | english | PVR | 250 | movie | C002 |

6.mobile_recharge

INSERT ALL

INTO mobile_recharge (rid, m_no, type, operator, ptype, amount, cid) VALUES ('R01', '1567704505', 'postpaid', 'vodafone', 'mobile', '40', 'C001')

INTO mobile_recharge (rid, m_no, type, operator, ptype, amount, cid) VALUES ('R02', '865677045', 'postpaid', 'idea', 'mobile', '100', 'C003')

INTO mobile_recharge (rid, m_no, type, operator, ptype, amount, cid) VALUES ('R03', '755677595', 'prepaid', 'airtel', 'mobile', '350', 'C004')

INTO mobile_recharge (rid, m_no, type, operator, ptype, amount, cid) VALUES ('R04', '755678425', 'prepaid', 'vodafone', 'mobile', '10', 'C008')

INTO mobile_recharge (rid, m_no, type, operator, ptype, amount, cid) VALUES ('R05', '755678425', 'prepaid', 'vodafone', 'mobile', '50', 'C001')

INTO mobile_recharge (rid, m_no, type, operator, ptype, amount, cid) VALUES ('R06', '895678425', 'postpaid', 'bsnl', 'mobile', '500', 'C003')

INTO mobile_recharge (rid, m_no, type, operator, ptype, amount, cid) VALUES ('R07', '995678425', 'postpaid', 'jio', 'mobile', '559', 'C008')

INTO mobile_recharge (rid, m_no, type, operator, ptype, amount, cid) VALUES ('R08', '9986978425', 'prepaid', 'idea', 'mobile', '250', 'C005')

INTO mobile_recharge (rid, m_no, type, operator, ptype, amount, cid) VALUES ('R09', '8886978425', 'prepaid', 'vodafone', 'mobile', '5', 'C005')

INTO mobile_recharge (rid, m_no, type, operator, ptype, amount, cid) VALUES ('R10', '8886978425', 'prepaid', 'vodafone', 'mobile', '150', 'C002')

select * from dual;

• SELECT * FROM mobile_recharge

| RID | M_NO | TYPE | OPERATOR | PTYPE | AMOUNT | CID |
|-----|------------|----------|----------|--------|--------|------|
| R01 | 1567704505 | postpaid | vodafone | mobile | 40 | C001 |
| R02 | 865677045 | postpaid | idea | mobile | 100 | C003 |
| R03 | 755677595 | prepaid | airtel | mobile | 350 | C004 |
| R04 | 755678425 | prepaid | vodafone | mobile | 10 | C008 |
| R05 | 755678425 | prepaid | vodafone | mobile | 50 | C001 |
| R06 | 895678425 | postpaid | bsnl | mobile | 500 | C003 |
| R07 | 995678425 | postpaid | jio | mobile | 559 | C008 |
| R08 | 9986978425 | prepaid | idea | mobile | 250 | C005 |
| R09 | 8886978425 | prepaid | vodafone | mobile | 5 | C005 |
| R10 | 8886978425 | prepaid | vodafone | mobile | 150 | C002 |

7.electricity_bills

INSERT ALL

INTO electricity_bills (eid, type, amount, ptype, cid) VALUES ('E01', 'electricity boards', '450', 'electricity', 'C002')

INTO electricity_bills (eid, type, amount, ptype, cid) VALUES ('E02', 'apartment', '250', 'electricity', 'C001')

INTO electricity_bills (eid, type, amount, ptype, cid) VALUES ('E03', 'apartment', '750', 'electricity', 'C001')

INTO electricity_bills (eid, type, amount, ptype, cid) VALUES ('E04', 'apartment', '900', 'electricity', 'C005')

INTO electricity_bills (eid, type, amount, ptype, cid) VALUES ('E05', 'electricity boards', '400', 'electricity', 'C008')

INTO electricity_bills (eid, type, amount, ptype, cid) VALUES ('E06', 'apartment', '750', 'electricity', 'C007')

INTO electricity_bills (eid , type , amount , ptype , cid) VALUES ('E07', 'electricity boards', '1000', 'electricity', 'C005')

INTO electricity_bills (eid, type, amount, ptype, cid) VALUES ('E08', 'electricity boards', '1200', 'apartment', 'C008')

INTO electricity_bills (eid , type , amount , ptype , cid) VALUES ('E09', 'electricity boards', '1500', 'apartment', 'C009')

INTO electricity_bills (eid, type, amount, ptype, cid) VALUES ('E10', 'electricity boards', '1500', 'apartment', 'C010')

select * from dual;

• SELECT * FROM electricity_bills

| EID | TYPE | AMOUNT | PTYPE | CID |
|-----|--------------------|--------|-------------|------|
| E01 | electricity boards | 450 | electricity | C002 |
| E02 | apartment | 250 | electricity | C001 |
| E03 | apartment | 750 | electricity | C001 |
| E04 | apartment | 900 | electricity | C005 |
| E05 | electricity boards | 400 | electricity | C008 |
| E06 | apartment | 750 | electricity | C007 |
| E07 | electricity boards | 1000 | electricity | C005 |
| E08 | electricity boards | 1200 | apartment | C008 |
| E09 | electricity boards | 1500 | apartment | C009 |
| E10 | electricity boards | 1500 | apartment | C010 |

8.gas_bills

INSERT ALL

INTO gas_bills (gid, gas_provider, consumer_no, amount, ptype, cid) VALUES ('G01', 'adani gas', '123', '450', 'gas', 'C003')

INTO gas_bills (gid , gas_provider , consumer_no , amount , ptype , cid) VALUES ('G02', 'gujarat gas', '133', '1000', 'gas', 'C005')

INTO gas_bills (gid, gas_provider, consumer_no, amount, ptype, cid) VALUES ('G03', 'tripura natural gas', '133', '1550', 'gas', 'C007')

INTO gas_bills (gid , gas_provider , consumer_no , amount , ptype , cid) VALUES ('G04', 'adani gas', '143', '950', 'gas', 'C007')

INTO gas_bills (gid, gas_provider, consumer_no, amount, ptype, cid) VALUES ('G05', 'adani gas', '153', '1050', 'gas', 'C005')

INTO gas_bills (gid , gas_provider , consumer_no , amount , ptype , cid) VALUES ('G06', 'tripura natural gas', '163', '1300', 'gas', 'C003')

INTO gas_bills (gid , gas_provider , consumer_no , amount , ptype , cid) VALUES ('G07', 'tripura natural gas', '173', '1350', 'gas', 'C005')

INTO gas_bills (gid , gas_provider , consumer_no , amount , ptype , cid) VALUES ('G08', 'gujarat gas', '173', '1100', 'gas', 'C002')

INTO gas_bills (gid , gas_provider , consumer_no , amount , ptype , cid) VALUES ('G09', 'adani gas', '183', '2000', 'gas', 'C005')

INTO gas_bills (gid, gas_provider, consumer_no, amount, ptype, cid) VALUES ('G10', 'adani gas', '183', '2500', 'gas', 'C009')

select * from dual;

• SELECT * FROM gas_bills

| GID | GAS_PROVIDER | CONSUMER_NO | AMOUNT | PTYPE | CID |
|-----|---------------------|-------------|--------|-------|------|
| G01 | adani gas | 123 | 450 | gas | C003 |
| G02 | gujarat gas | 133 | 1000 | gas | C005 |
| G03 | tripura natural gas | 133 | 1550 | gas | C007 |
| G04 | adani gas | 143 | 950 | gas | C007 |
| G05 | adani gas | 153 | 1050 | gas | C005 |
| G06 | tripura natural gas | 163 | 1300 | gas | C003 |
| G07 | tripura natural gas | 173 | 1350 | gas | C005 |
| G08 | gujarat gas | 173 | 1100 | gas | C002 |
| G09 | adani gas | 183 | 2000 | gas | C005 |
| G10 | adani gas | 183 | 2500 | gas | C009 |

9.offers

OFFERS:

INSERT ALL

INTO offers (promocode , ptype , description) VALUES ('valid2', 'mobile', '100 cashback ')

INTO offers (promocode, ptype, description) VALUES ('talktime50', 'mobile', '50 talktime on recharge of 50')

INTO offers (promocode, ptype, description) VALUES ('cashback1000', 'gas', 'cashback 1000 on bill more than 1000')

INTO offers (promocode, ptype, description) VALUES ('cashback500', 'dth', 'cashback 500 on recharge more than 500')

select * from dual;

SELECT * FROM offer

| PROMOCODE | PTYPE | DESCRIPTION |
|--------------|--------|--|
| valid2 | mobile | 100 cashback |
| talktime50 | mobile | 50 talktime on recharge of 50 |
| cashback1000 | gas | cashback 1000 on bill more than 1000 |
| cashback500 | dth | cashback 500 on recharge more than 500 |

10.wallet

INSERT ALL

```
INTO wallet (wid, cid, balance) VALUES ('1', 'C001', '2000')
INTO wallet (wid, cid, balance) VALUES ('2', 'C002', '8000')
INTO wallet (wid, cid, balance) VALUES ('3', 'C003', '5000')
INTO wallet (wid, cid, balance) VALUES ('4', 'C004', '3000')
INTO wallet (wid, cid, balance) VALUES ('5', 'C005', '6000')
INTO wallet (wid, cid, balance) VALUES ('6', 'C006', '9000')
INTO wallet (wid, cid, balance) VALUES ('7', 'C007', '5000')
INTO wallet (wid, cid, balance) VALUES ('8', 'C008', '6000')
INTO wallet (wid, cid, balance) VALUES ('9', 'C009', '8000')
INTO wallet (wid, cid, balance) VALUES ('10', 'C010', '2000')
INTO wallet (wid, cid, balance) VALUES ('10', 'C010', '2000')
```

• SELECT * FROM wallet

| WID | CID | BALANCE |
|-----|------|---------|
| 1 | C001 | 10000 |
| 2 | C002 | 8000 |
| 3 | C003 | 5000 |
| 4 | C004 | 3000 |
| 5 | C005 | 6000 |
| 6 | C006 | 9000 |
| 7 | C007 | 5000 |
| 8 | C008 | 6000 |
| 9 | C009 | 8000 |
| 10 | C010 | 2000 |

11.quetion

INSERT INTO quetion (q_no ,q_name) VALUES ('1','What your favorite colour?');

• SELECT * FROM quetion



12.feedback

INSERT INTO feedback(cphone , message) VALUES (123456789, 'please add more offers..');

• Select* from feedback

| CPHONE | | MESSAGE | |
|--------|-----------|------------------------|--|
| | 123456789 | please add more offers | |

13.payment

INSERT ALL

INTO payment (pid , ptype , promocode , cid , amount) VALUES ('1', 'mobile', 'valid2', 'C002', '250')

INTO payment (pid , ptype , promocode , cid , amount) VALUES ('2', 'electricity', ", 'C002', '450'0)

INTO payment (pid , ptype , promocode , cid , amount) VALUES ('3', 'gas', 'cashback1000', 'C005', '135')

INTO payment (pid , ptype , promocode , cid , amount) VALUES ('4', 'mobile', 'valid2', 'C008', '10')

select * from dual;

• SELECT * FROM payment

| PID | PTYPE | PROMOCODE | CID | AMOUNT |
|-----|--------|--------------|------|--------|
| 5 | mobile | valid2 | C002 | 250 |
| 1 | mobile | valid2 | C002 | 250 |
| 2 | gas | cashback1000 | C002 | 2000 |
| 3 | gas | cashback1000 | C005 | 135 |
| 4 | mobile | valid2 | C008 | 10 |

14.transaction

• SELECT * FROM TRANSACTION

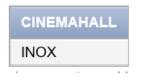
| TID | AMOUNT | T_DATE | CID | PID |
|-----|--------|------------|------|-----|
| 2 | 2000 | 02/02/2011 | C001 | 1 |
| 1 | 500 | 02/02/2017 | C001 | 1 |

5.3 Queries:

1. To get name of cinemahall from surat which has amount of ticket is greater than the average amount

QUERY/PROGRAM SELECT cinemahall from book_movies WHERE location='surat' AND amount>(select avg(amount) from book_movies)

OUTPUT:



2. Total electricity_bills paid by a client

QUERY/PROGRAM SELECT c.cid,c.cname, SUM(amount) AS TotalBills FROM electricity_bills e JOIN customer c on c.cid=e.cid GROUP BY c.cid,c.cname;

OUTTPUT:

| CID | CNAME | TOTALBILLS |
|------|--------|------------|
| C001 | monika | 1000 |
| C005 | riya | 1900 |
| C010 | siya | 1500 |
| C007 | apexa | 750 |
| C008 | bhavna | 1600 |
| C009 | priya | 1500 |
| C002 | bhavna | 450 |

3. find the name of customer who has paid gas_bills greater than 2000

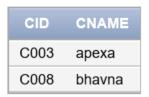
QUERY/PROGRAM: SELECT cname FROM customer WHERE cid = ANY (SELECT cid FROM gas_bills WHERE amount>2000);



4. Find find customer who has recharge of greater then or equal to 500 amount

QUERY/PROGRAM: SELECT CID,cname FROM customer c WHERE EXISTS (SELECT operator FROM mobile_recharge WHERE cid = c.CID AND amount>=500);

OUTPUT:



5. Print wallet balance of all customer

QUERY/PROGRAM: select cname as Customer_Name,balance as Balance from wallet w,customer c where c.cid=w.cid;

OUTPUT:

| CUSTOMER_NAME | BALANCE |
|---------------|---------|
| monika | 10000 |
| bhavna | 8000 |
| ареха | 5000 |
| mina | 3000 |
| riya | 6000 |
| jiiya | 9000 |
| ареха | 5000 |
| bhavna | 6000 |
| priya | 8000 |
| siya | 2000 |

6. Show name of all cinemahall for all city

QUERY/PROGRAM: SELECT SELECT location AS City,cinemahall AS Cinemahall FROM book_movies b INNER JOIN personal_info p ON p.CITY=b.location.

| CITY | CINEMAHALL |
|--------------------------|--|
| surat | PVR |
| surat | INOX |
| surat | INOX |
| surat | PVR |
| nadiad | vaishali |
| nadiad | vaishali |
| nadiad | INOX |
| baroda | PVR |
| baroda | valentine |
| surat | PVR |
| More than 10 rows availa | ble. Increase rows selector to view more rows. |

7. Show name of customer who's wallet balance between 5000 and 7000

QUERY/PROGRAM: SELECT c.cname,w.balance from customer c INNER JOIN wallet w ON w.cid=c.cid AND balance BETWEEN 5000 AND 7000

| CNAME | BALANCE |
|--------|---------|
| apexa | 5000 |
| riya | 6000 |
| apexa | 5000 |
| bhavna | 6000 |

5.4 PI/SQL BLOCKS (PROCEDURES AND FUNCTION)

5.4.1 FUNCTIONS

1. CREATE FUNCTION FOR PASSWORD RECOVERY.

QUERY/PROGRAM:

CREATE OR REPLACE FUNCTION PASSRECOVERY (C_ID IN VARCHAR,C_PHONE IN NUMBER) RETURN VARCHAR IS

```
PASS VARCHAR(20);
TP NUMBER(10);
```

BEGIN

SELECT CPHONE INTO TP FROM CUSTOMER WHERE CID=C_ID;

DBMS_OUTPUT.ENABLE();

IF(TP=C_PHONE) THEN

SELECT PASSWORD INTO PASS FROM CUSTOMER WHERE CID=C_ID;

END IF;

RETURN PASS;

END;

OUTPUT:

SELECT PASSRECOVERY('C005',5678901) FROM DUAL;

PASSRECOVERY('C005',5678901)
riya

2. CREATE A FUNCTION TO FIND DESCRIPTION OF THE PROMOCODE.

QUERY/PROGRAM:

CREATE OR REPLACE FUNCTION OFFER_DESC(P_CODE IN VARCHAR)RETURN VARCHAR IS

DES VARCHAR(50);

BEGIN

SELECT DESCRIPTION INTO DES FROM OFFERS WHERE PROMOCODE=P_CODE;

RETURN DES;

END;

OUTPUT:

SELECT OFFER_DESC('valid2') FROM DUAL;

OFFER_DESC('VALID2')

100 cashback

5.4.2 PROCEDURES:

1. CREATE A PROCEDURE FOR PASSWORD RECOVERY.

QUERY/PROGRAM:

CREATE OR REPLACE PROCEDURE PASS_RECOVERY_S (C_ID IN VARCHAR,C_PHONE IN NUMBER) IS

PASS VARCHAR(20);

BEGIN

PASS:=PASSRECOVERY(C_ID,C_PHONE);

DBMS_OUTPUT.ENABLE();

DBMS_OUTPUT_LINE(TO_CHAR(PASS) || 'IS YOUR PASSWORD');

END;

OUTPUT:

BEGIN

PASS RECOVERY S('C005',5678901);

END;

```
DIGITAL PAYMENT
```

```
riya IS YOUR PASSWORD
Statement processed.
0.00 seconds
2. PROCEDURE TO APPLY PROMO-CODE AT PAYMENT TIME...
```

QUERY/PROGRAM:

```
CREATE OR REPLACE PROCEDURE APPLY_PROMO(P_ID IN VARCHAR2) IS
 P_CODE VARCHAR2(20);
 AMT NUMBER(20);
 P_TYPE VARCHAR(20);
 T_ID NUMBER(5);
```

BEGIN

```
DBMS_OUTPUT.ENABLE();
```

SELECT PROMOCODE INTO P_CODE FROM PAYMENT WHERE PID=P_ID;

SELECT MAX(TID) INTO T_ID FROM TRANSACTION;

SELECT AMOUNT INTO AMT FROM TRANSACTION WHERE TID=T_ID;

SELECT PTYPE INTO P_TYPE FROM PAYMENT WHERE PID=P_ID;

```
IF(P_TYPE='mobile') THEN
```

```
IF(P_CODE='valid2') THEN
```

AMT:=AMT-10;

END IF;

IF(P_CODE='talktime50') THEN

AMT:=AMT-50;

END IF:

END IF;

IF(P_TYPE='gas') THEN

IF(P_CODE='cashback1000') THEN

```
DIGITAL PAYMENT
      IF(AMT>1000) THEN
        AMT:=AMT-1000;
      ELSE
       DBMS_OUTPUT.PUT_LINE('ENTER VALID AMOUNT');
      END IF;
   END IF;
 END IF;
 IF(P_TYPE='dth') THEN
    IF(P_CODE='cashback500') THEN
      IF(AMT>500) THEN
       AMT:=AMT-500;
      ELSE
       DBMS_OUTPUT.PUT_LINE('ENTER VALID AMOUNT');
      END IF;
    END IF;
  END IF;
  UPDATE TRANSACTION SET AMOUNT=AMT WHERE TID=T_ID;
  DBMS_OUTPUT_LINE('effective amount '||to_char(AMT));
END;
   OUTPUT:
```

BEGIN

APPLY_PROMO(1);

END;

| TID | AMOUNT | T_DATE | CID | PID |
|-----|--------|------------|------|-----|
| 2 | 500 | 02/02/2011 | C001 | 1 |
| 4 | 490 | 02/02/2011 | C001 | 1 |
| 1 | 90 | 02/03/2018 | C001 | 1 |
| 3 | 500 | 02/02/2011 | C001 | 1 |

5.5 VIEWS:

1.CREATE VIEW FOR CUSTOMER DETAILS.

QUERY/PROGRAM:

CREATE VIEW CDETAIL AS SELECT CNAME, EMAIL FROM CUSTOMER;

OUTPUT:

SELECT * FROM CDETAIL

| CNAME | EMAIL |
|--------|------------------|
| monika | monika@gmail.com |
| bhavna | bhavna@gmail.com |
| apexa | apexa@gmail.com |
| mina | mina@gmail.com |
| riya | riya@gmail.com |
| jiiya | jiya@gmail.com |
| apexa | apexa@gmail.com |
| bhavna | bhavna@gmail.com |
| priya | priya@gmail.com |
| siya | siya@gmail.com |

2.CREATE A VIEW FOR CUSTOMER TRANSACTION DETAILS.

QUERY/PROGRAM:

CREATE VIEW TRANS_DETAIL AS SELECT CID, AMOUNT FROM TRANSACTION;

OUTPUT:

SELECT * FROM TRANS_DETAIL

| CID | AMOUNT | |
|------|--------|--|
| C001 | 2000 | |
| C001 | 500 | |

5.6 TRIGGURES

1.MAKE TRIGGER FOR PAYMENT IN WHICH TRANSACTION IS DONE WHEN PAYMENT ENTRY IS CREATED

QUERY/PROGRAM:

CREATE TRIGGER PAYMENT_TX AFTER INSERT ON PAYMENT

DECLARE

id number(5);

BEGIN

SELECT MAX(TID) INTO id FROM TRANSACTION;

id := id+1;

INSERT INTO TRANSACTION VALUES(id,500,sysdate,'C001',1);

END;

OUTPUT:

INSERT INTO payment (pid , ptype , promocode , cid , amount) VALUES ('6', 'mobile', 'valid2', 'C009', '500')

| PID | PTYPE | PROMOCODE | CID | AMOUNT |
|-----|--------|--------------|------|--------|
| 5 | mobile | valid2 | C002 | 250 |
| 6 | mobile | valid2 | C009 | 500 |
| 1 | mobile | valid2 | C002 | 250 |
| 2 | gas | cashback1000 | C002 | 2000 |
| 3 | gas | cashback1000 | C005 | 135 |
| 4 | mobile | valid2 | C008 | 10 |

| TID | AMOUNT | T_DATE | CID | PID |
|-----|--------|------------|------|-----|
| 2 | 2000 | 02/02/2011 | C001 | 1 |
| 3 | 500 | 02/02/2011 | C001 | 1 |
| 1 | 500 | 02/02/2017 | C001 | 1 |
| 4 | 500 | 10/16/2018 | C009 | 6 |

2.MAKE TRIGGER ON PAYMENT WHEN PAYMENT IS DONE THEN AUTOMATICALLY DECREMENT BALANCE FROM WALLET BALANCE.

QUERY/PROGRAM:

CREATE TRIGGER WALLET_DEC AFTER INSERT ON PAYMENT

DECLARE

BL NUMBER(20);

RL NUMBER(20);

BEGIN

SELECT AMOUNT INTO BL FROM PAYMENT WHERE PID=1;

SELECT BALANCE INTO RL FROM WALLET WHERE WID=1;

RL:=RL-BL;

UPDATE WALLET SET BALANCE=RL WHERE WID=1;

END;

OUTPUT:

INSERT INTO payment (pid , ptype , promocode , cid , amount) VALUES ('7', 'mobile', 'valid2', 'C009', '250')

| WID | CID | BALANCE |
|-----|------|---------|
| 1 | C001 | 10000 |
| 2 | C002 | 8000 |
| 3 | C003 | 5000 |
| 4 | C004 | 3000 |
| 5 | C005 | 6000 |
| 6 | C006 | 9000 |
| 7 | C007 | 5000 |
| 8 | C008 | 6000 |
| 9 | C009 | 8000 |
| 10 | C010 | 2000 |

| WID | CID | BALANCE |
|-----|------|---------|
| 1 | C001 | 9750 |
| 2 | C002 | 8500 |
| 3 | C003 | 5500 |
| 4 | C004 | 3500 |
| 5 | C005 | 6500 |
| 6 | C006 | 9500 |
| 7 | C007 | 5500 |
| 8 | C008 | 6500 |
| 9 | C009 | 8500 |
| 10 | C010 | 2500 |

5.7 CURSOR:

• IMPLICITE CURSOR

1.IMPLICITE CURSOR THAT TNSERT NEW CUSTOER AND PRINT THE MESSAGE LIKE 'THANK YOU FOR REGISTRATION'.

QUERY/PROGRAM:

```
DECLARE
C_ID VARCHAR2(5);
NAME VARCHAR2(20);
M_NO NUMBER(10);
PASS VARCHAR2(20);
E_MAIL VARCHAR2(20);
BEGIN
 C_ID:=:ENTER_CID;
 NAME:=:ENTER_NAME;
 M_NO:=:ENTER_MOBILE_NUMBER;
 PASS:=:ENTER_PASSWORD;
 E MAIL:=:ENTER EMAIL ADDRESS;
 INSERT INTO CUSTOMER VALUES(C_ID, NAME, M_NO, PASS, E_MAIL);
 IF SQL%FOUND THEN
   DBMS_OUTPUT.ENABLE();
   DBMS_OUTPUT_LINE('THANKS YOU FOR REGRISTRATION..!');
 END IF;
END;
OUTPUT:
```



THANKS YOU FOR REGRISTRATION ..!

1 row(s) inserted.

| CID | CNAME | CPHONE | PASSWORD | EMAIL |
|--|--------|------------|----------|------------------|
| C011 | ANIMA | 1247952 | ANIMA | ANIMA@gmail.com |
| C001 | monika | 1234567890 | monika | monika@gmail.com |
| C002 | bhavna | 234567890 | bhavna | bhavna@gmail.com |
| C003 | apexa | 34567890 | apexa | apexa@gmail.com |
| C004 | mina | 4567890 | mina | mina@gmail.com |
| C005 | riya | 5678901 | riya | riya@gmail.com |
| C006 | jiiya | 678901 | jiya | jiya@gmail.com |
| C007 | apexa | 34567890 | apexa | apexa@gmail.com |
| C008 | bhavna | 234567890 | bhavna | bhavna@gmail.com |
| C009 | priya | 890123 | priya | priya@gmail.com |
| More than 10 rows available. Increase rows selector to view more rows. | | | | |

2.CREATE IMPLICITE CURSOR FOR INCREMENT WALLET BALANCE.

QUERY/PROGRAM:

DECLARE

N NUMBER(20);

BEGIN

N:=:N;

UPDATE WALLET SET BALANCE=BALANCE+N;

IF SQL%FOUND THEN

DBMS_OUTPUT.ENABLE();

DBMS_OUTPUT.PUT_LINE(TO_CHAR(SQL%ROWCOUNT) \parallel 'ROWS UPDATED BY ' \parallel TO_CHAR(N) \parallel 'RS.');

END IF;

END;



```
10 ROWS UPDATED BY 100RS.
1 row(s) updated.
```

• EXPLICITE CURSOR

1.CREATE EXPLICITE CURSOR FOR SHOW BALANCE FROM WALLET WHICH EVER GREATER THAN 8000 BALANCE.

QUERY/PROGRAM:

DECLARE

DECLARE

CURSOR WALL_AMT IS SELECT WID,BALANCE FROM WALLET WHERE BALANCE>8000;

W_AMT WALL_AMT%ROWTYPE;

BEGIN

OPEN WALL_AMT;

FETCH WALL_AMT INTO W_AMT;

DBMS OUTPUT.ENABLE();

DBMS_OUTPUT_LINE(W_AMT.WID || W_AMT.BALANCE);

CLOSE WALL_AMT;

END;

OUTPUT:

19850

Statement processed.

2.CREATE EXPLICITE CURSOR FOR SHOW ALL TRANSACTIONS FOR PERTICULAR CUSTOMER.

QUERY/PROGRAM:

DECLARE

CURSOR TRANS_OFFER IS SELECT CID FROM CUSTOMER;

C ID CUSTOMER.CID%TYPE;

CNT NUMBER(3);

TEMP NUMBER(3);

BEGIN

CNT:=0;

DBMS_OUTPUT.ENABLE();

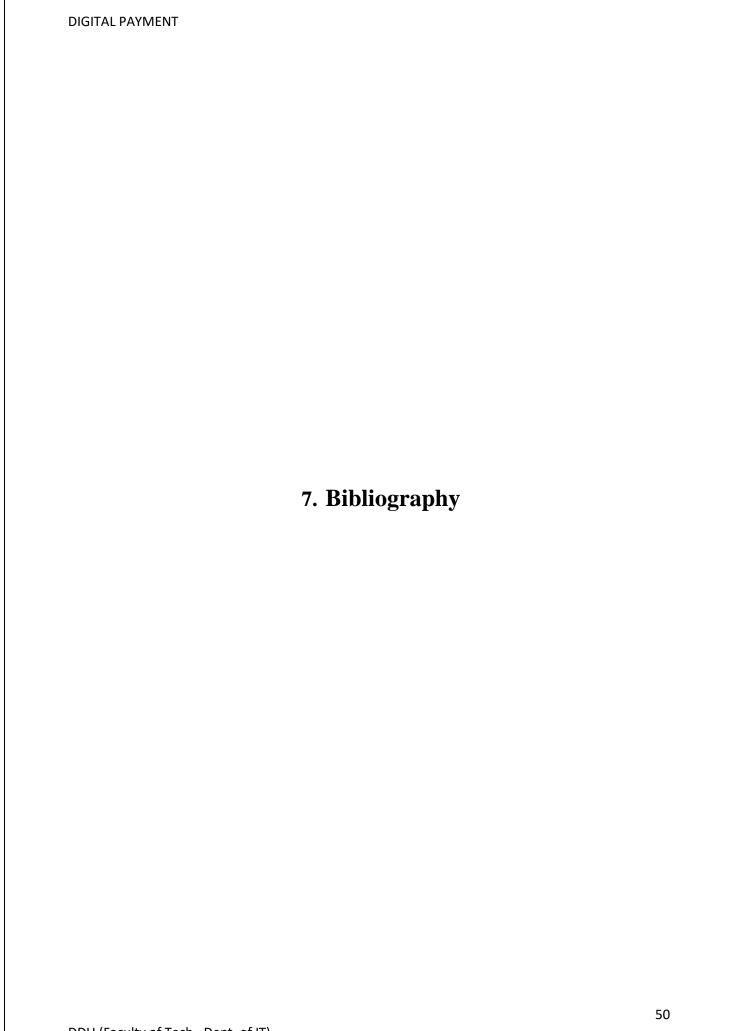
FOR I IN TRANS_OFFER

LOOP

```
CNT:=0;
  SELECT COUNT(RID) INTO TEMP FROM MOBILE_RECHARGE WHERE
CID=I.CID:
  IF(TRANS OFFER%FOUND) THEN
   CNT:=TEMP+CNT;
  END IF:
  SELECT COUNT(MID) INTO TEMP FROM BOOK MOVIES WHERE CID=I.CID;
  IF(TRANS_OFFER%FOUND) THEN
   CNT:=TEMP+CNT;
  END IF;
  SELECT COUNT(DID) INTO TEMP FROM DTH_RECHARGE WHERE CID=I.CID;
  IF(TRANS OFFER%FOUND) THEN
   CNT:=TEMP+CNT;
  END IF:
  SELECT COUNT(EID) INTO TEMP FROM ELECTRICITY BILLS WHERE
CID=I.CID;
  IF(TRANS OFFER%FOUND) THEN
   CNT:=TEMP+CNT;
  END IF:
  SELECT COUNT(GID) INTO TEMP FROM GAS_BILLS WHERE CID=I.CID;
  IF(TRANS_OFFER%FOUND) THEN
   CNT:=TEMP+CNT;
  END IF:
  IF(CNT>5) THEN
   UPDATE WALLET SET BALANCE=BALANCE+100 WHERE CID=C_ID;
  END IF:
  DBMS_OUTPUT_LINE(TO_CHAR(I.CID) || 'HAS DONE ' || TO_CHAR(CNT)
||'TRANSACTIONS');
 END LOOP;
 COMMIT;
END;
OUTPUT:
C001 HAS DONE 7TRANSACTIONS
C002 HAS DONE 6TRANSACTIONS
C003 HAS DONE 5TRANSACTIONS
C004 HAS DONE 3TRANSACTIONS
C005 HAS DONE 12TRANSACTIONS
C006 HAS DONE 2TRANSACTIONS
C007 HAS DONE 4TRANSACTIONS
C008 HAS DONE 7TRANSACTIONS
C009 HAS DONE 3TRANSACTIONS
C010 HAS DONE 1TRANSACTIONS
C011 HAS DONE OTRANSACTIONS
```

| DIGITAL PAYMENT | |
|--------------------------------------|--|
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| 6. FUTURE ENHANCEMENTS OF THE SYSTEM | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |

For future enhancement we will provide the user interactive GUI. We will also add extra features of various payments and its methods. We are also looking forward to extend this project on all different type of transaction platforms. We are making this database efficient and easy to implement with huge data capacity. Payment methods and user data inputs will be lot easy after the implementation of GUI.



For the successful working of myproject I have referred many sources for. The code snippets, logics tips &tips from the various books as well as websites. mostly I Searched For requirement possession on the websites. Many of the logics in my project are used from the book which I referred &the concepts there in book which indeed provided a platform to achieve such reliable system database.

Reference books:

- ➤ Data Base System Concepts
- Henry F.Korth & A.Silberschatz. 2nd Ed. McGraw-Hill 1991
 - > SQL, PL/SQL The programming language of Oracle
- Ivan Bayross, BPB Publications

References Website:

- https://stackoverflow.com/
- https://docs.oracle.com/en/
- https://www.tutorialspoint.com/
- https://www.w3schools.com/