

# UPI Payments Database

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Under the guidance of

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- We thank DBMS professor, Dr. T Ramakrishnudu for giving us the opportunity to delve deep into database concepts. Their lessons have been really helpful in learning the fundamental DBMS concepts like relations, E-R diagrams, Structured Query Language, functional dependencies, normalization, indexing, etc. in detail.
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We also thank our parents, elders and well-wishers for being there with us and giving us all kinds of technical and moral support.

Regards,

**Satya Bharadwaj Pendyala,  
Venkata Krishna Vamsi Vipparthi,  
Srianshu Mahadas**

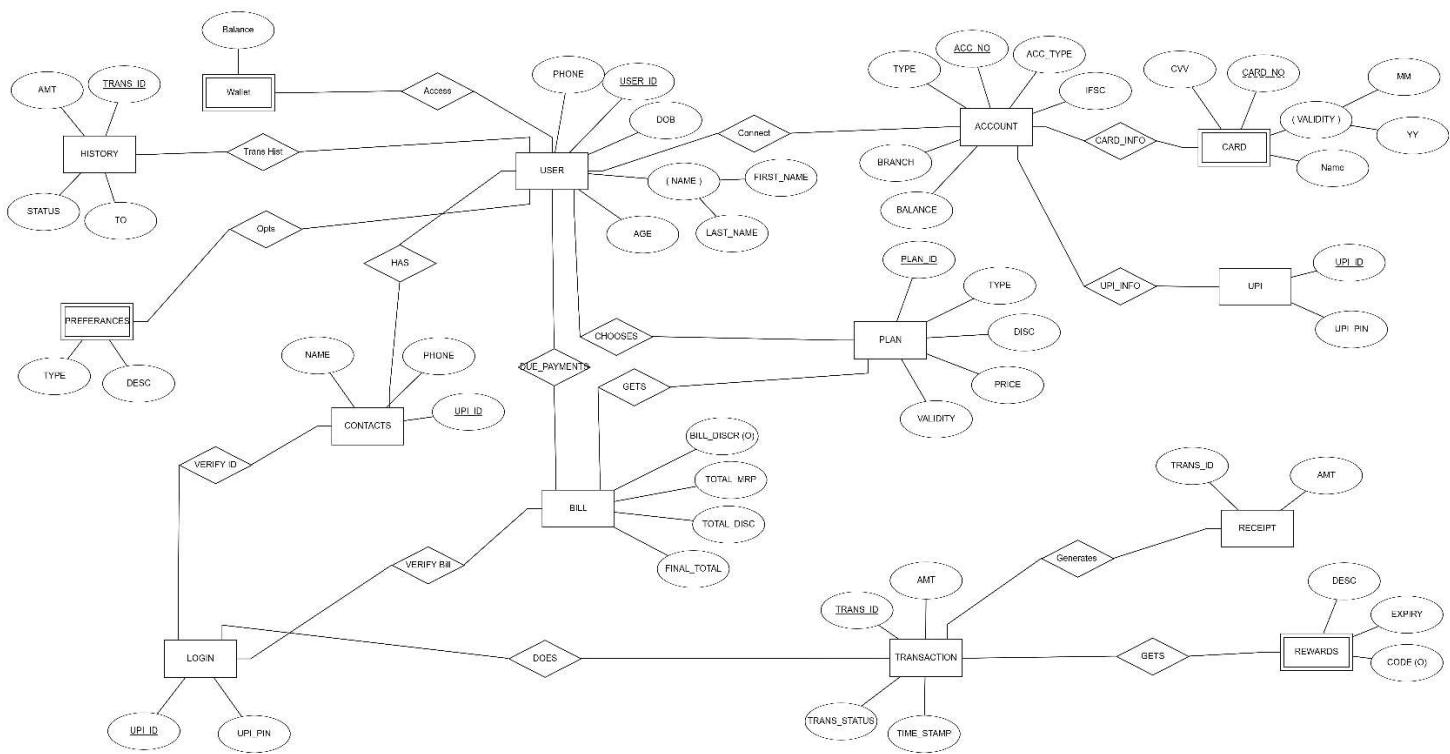
## PROBLEM STATEMENT

Introduced in 2016, UPI Payments in India really took off in the last several years. It is an instant real-time payment system facilitating inter-bank transactions. It is a system that powers multiple bank accounts into a single mobile application, merging several banking features, seamless fund routing and merchant payments into one hood.

UPI was the technology that truly revolutionized Indian payment tech stack and led to a cashless transition of the Indian economy that was predominantly cash based until a few years ago. The share of UPI in daily monetary transactions is significantly high and is only going to go up in the upcoming years. When a single software system covers so many bases and impacts the everyday economy of a country as big as India, there are several things that have to be focused on to maintain security and consistency in service.

We hence picked the Database Management System of Unified Payments Interface (UPI) in India as our case problem for this project. The database will contain information about Users, their Banking Details and Transaction Details. This data can be readily used to validate and access transactions.

# ER DIAGRAM



## ENTITIES

User	Receipt
Account	UPI
Contacts	Plan
History	Bill
Transaction	LogIn

## RELATIONSHIPS

Access	Connect	Verify Bill
Trans Hist	Card_info	Does
Opts	UPI_info	Due_Payments
Has	Generates	Chooses
Verify ID	Gets	

## WEAK ENTITIES

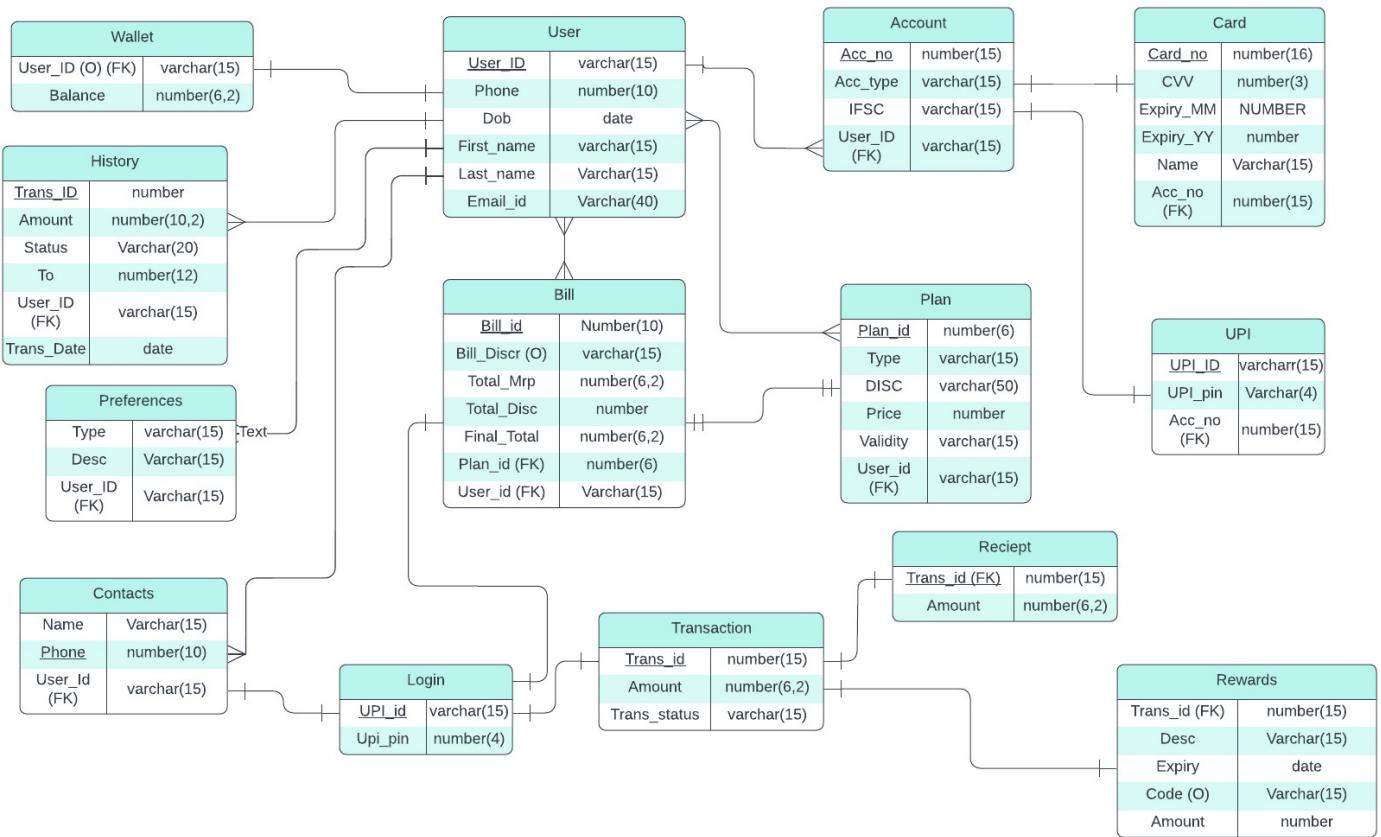
Wallet
Preferences
Rewards
Card

## ASSUMPTIONS:

- A single User can have multiple number of Accounts. Therefore, User and Account relations have 1: N relationship.
- A single User can choose multiple number of Plans. Therefore, User and Plan relations have 1: N relationship.
- One Plan (chosen by a user) can have only one bill. So, Plan and Bill relations have 1: 1 relationship.
- For an account a user can have 1 UPI account and one card. So, account and UPI relations have 1: 1 relationship and Similarly the Account and card relations have 1: 1 relationship.

- A Single User can have many due Payments. So, User and Bill relations have 1: N relationship.
- A User can opt for as many preferences as he like. So, User and Preferences Relations have 1: N relationship.
- At any point, A User can have many transactions in his/her history. So, User and history relations have 1: N relationship.
- Similarly, A User can have only one UPI wallet for his Account. So, User and Wallet Relations have 1: 1 relationship.
- A User can have many contacts. So, User and contacts Relations have 1: N relationship.
- But for every contact of a User then exist only one Login verification. So, User and Login has 1: 1 relationship.
- For every Login only one Transaction can be done (due to server timeout). Therefore, Transaction and Login relations have 1: 1 relationship.
- A transaction will get only one receipt as a proof of the transaction. So, Transaction and receipt relations have 1: 1 relationship.
- A Transaction may get a Reward (Conditions Apply). So, Transaction and Rewards relations have 1: 1 relationship.

## RELATIONAL SCHEMA



### User (Entity)

- UserId
- Phone
- DoB
- First\_Name
- Last\_Name

All the attributes are atomic which implies that the table is 1NF. The only functional dependency in this table is also only of the primary key.

UserId  $\rightarrow$  (Phone, DoB, First\_Name, Last\_Name)

So, it is assured that the table does not contain any partial or transitive dependencies, which also implies that the table is obeying both 1NF, 2NF, 3NF & BCNF.

### Account (Entity)

- Acc\_no
- Acc\_type

- Type
- IFSC
- User\_ID

All the attributes are atomic which implies that the table is 1NF. The only functional dependency in this table is also only of the primary key.

Acc\_no  $\rightarrow$  (Acc\_type, Type, IFSC, User\_ID)

So, it is assured that the table does not contain any partial or transitive dependencies, which also implies that the table is obeying both 1NF, 2NF, 3NF & BCNF.

## Contacts (Entity)

- Name
- Phone
- User\_ID

All the attributes are atomic which implies that the table is 1NF. The only functional dependency in this table is also only of the primary key.

Phone  $\rightarrow$  (Name, User\_ID)

So, it is assured that the table does not contain any partial or transitive dependencies, which also implies that the table is obeying both 1NF, 2NF, 3NF & BCNF.

## History (Entity)

- Trans\_ID
- Amount
- Status
- ID
- User\_ID

All the attributes are atomic which implies that the table is 1NF. The only functional dependency in this table is also only of the primary key.

Trans\_ID  $\rightarrow$  (Amount, Status, ID, User\_ID)

So, it is assured that the table does not contain any partial or transitive dependencies, which also implies that the table is obeying both 1NF, 2NF, 3NF & BCNF.

## Transaction (Entity)

- Trans\_ID
- Amount
- Time\_Status
- Time\_Stamp
- UPI\_Id

All the attributes are atomic which implies that the table is 1NF. The only functional dependency in this table is also only of the primary key.

$\text{Trans\_ID} \rightarrow (\text{Amount}, \text{Time\_Status}, \text{Time\_Stamp}, \text{UPI\_ID})$

So, it is assured that the table does not contain any partial or transitive dependencies, which also implies that the table is obeying both 1NF, 2NF, 3NF & BCNF.

## Receipt (Entity)

- Trans\_ID
- Amount

All the attributes are atomic which implies that the table is 1NF. The only functional dependency in this table is also only of the primary key.

$\text{Trans\_ID} \rightarrow (\text{Amount})$

So, it is assured that the table does not contain any partial or transitive dependencies, which also implies that the table is obeying both 1NF, 2NF, 3NF & BCNF.

## UPI (Entity)

- UPI\_ID
- UPI\_Pin
- Acc\_no

All the attributes are atomic which implies that the table is 1NF. The only functional dependency in this table is also only of the primary key.

$\text{UPI\_ID} \rightarrow (\text{UPI\_Pin}, \text{Acc\_no})$

So, it is assured that the table does not contain any partial or transitive dependencies, which also implies that the table is obeying both 1NF, 2NF, 3NF & BCNF.

## Plan (Entity)

- Plan\_ID
- User\_ID
- Type
- DISC
- Price
- Validity

All the attributes are atomic which implies that the table is 1NF. The only functional dependency in this table is also only of the primary key.

$(\text{Plan\_ID}) \rightarrow (\text{Type}, \text{DISC}, \text{Price}, \text{Validity}, \text{User ID})$

So, it is assured that the table does not contain any partial or transitive dependencies, which also implies that the table is obeying both 1NF, 2NF, 3NF & BCNF.

## Bill (Entity)

- Bill\_ID
- Bill\_Discr
- Total\_Mrp
- Total\_Disc
- Final\_Total
- Plan\_ID
- User\_ID

All the attributes are atomic which implies that the table is 1NF. The only functional dependency in this table is also only of the primary key.

$\text{Bill\_ID} \rightarrow (\text{Bill\_Discr}, \text{Total\_MRP}, \text{Total\_Disc}, \text{Final\_Total}, \text{Plan\_ID}, \text{User\_ID})$

So, it is assured that the table does not contain any partial or transitive dependencies, which also implies that the table is obeying both 1NF, 2NF, 3NF & BCNF.

## Login (Entity)

- UPI\_ID
- UPI\_pin
- Phone

All the attributes are atomic which implies that the table is 1NF. The only functional dependency in this table is also only of the primary key.

$\text{UPI\_ID} \rightarrow (\text{UPI\_Pin}, \text{Phone})$

So, it is assured that the table does not contain any partial or transitive dependencies, which also implies that the table is obeying both 1NF, 2NF, 3NF & BCNF.

## TABLES CREATION

```
CREATE TABLE Users (
    User_ID varchar(15) primary key,
    Phone number(10),
    Dob date,
    First_name varchar(15),
    Last_name Varchar(15)
);

CREATE TABLE Wallet (
    User_ID  varchar(15),
    Balance number(6,2),
    FOREIGN KEY (User_ID) REFERENCES Users(User_ID)
);

CREATE TABLE Preferences (
    Type varchar(20),
    Descrip Varchar(65),
    User_ID Varchar(15),
    FOREIGN KEY (User_ID) REFERENCES Users(User_ID)
);

CREATE TABLE History (
    Trans_ID number primary key,
    Amount number(10,2),
    Status Varchar(20),
    To_account number(11),
    User_ID varchar(15),
    Trans_date Date,
    FOREIGN KEY (User_ID) REFERENCES Users(User_ID)
);

CREATE TABLE Account (
    Acc_no number(15) primary key,
    Acc_type varchar(15),
    IFSC number(15),
    User_ID varchar(15),
    FOREIGN KEY (User_ID) REFERENCES Users(User_ID)
);

CREATE TABLE Card (
    CVV number(3),
    Card_no number(16) primary key,
    Expiry_MM NUMBER,
    Expiry_YY number,
    Name Varchar(15),
    Acc_no number(15),
    FOREIGN KEY (Acc_no) REFERENCES Account(Acc_no)
);

CREATE TABLE UPI (
    UPI_ID number(15) primary key,
    UPI_pin number(4),
    Acc_no number(15),
```

```

    FOREIGN KEY (Acc_no) REFERENCES Account(Acc_no)
);

CREATE TABLE Contacts (
    Name Varchar(30),
    Phone number(10) primary key,
    User_Id varchar(15),
    FOREIGN KEY (User_ID) REFERENCES Users(User_ID)
);

CREATE TABLE Plan (
    Plan_id number(6) primary key,
    Type varchar(20),
    DISC Varchar(50),
    Price number,
    Validity date,
    User_id varchar(15),
    FOREIGN KEY (User_ID) REFERENCES Users(User_ID)
);

CREATE TABLE Bill (
    Bill_id Number(10) primary key,
    Bill_Discr varchar(15),
    Total_Mrp number(6,2),
    Total_Disc number,
    Final_Total number(6,2),
    Plan_id number(6),
    User_id Varchar(15),
    FOREIGN KEY (User_ID) REFERENCES Users(User_ID),
    FOREIGN KEY (Plan_id) REFERENCES Plan(Plan_id)
);

CREATE TABLE Login (
    UPI_id number(15) primary key,
    Upi_pin number(10),
    Phone number(10),
    Bill_id Number(10),
    FOREIGN KEY (Phone) REFERENCES Contacts(Phone),
    FOREIGN KEY (Bill_id) REFERENCES Bill(Bill_id)
);

CREATE TABLE Transaction (
    Trans_id number(15) primary key,
    Amount number(6,2),
    Trans_status varchar(15),
    To_Account Number(11)
);

CREATE TABLE Reciept (
    Trans_id number(15) primary key,
    Amount number(6,2),
    FOREIGN KEY (Trans_id) REFERENCES Transaction(Trans_id)
);

CREATE TABLE Rewards (
    Trans_id number(15) primary key,
    Descrip Varchar(20),
    Expiry date,
    Code Varchar(15),

```

```
FOREIGN KEY (Trans_id) REFERENCES Transaction(Trans_id)
);
```

## INSERTION OF VALUES

```
insert into Users values('#9001202223',7569812575,'2002-07-06','Kilari','Easwar','easwarkilari@gmail.com');
insert into Users values('#5632567236',9381548943,'1980-08-27','Uma','Mahesh','mahesh@gmail.com');
insert into Users values('#8965498916',9381826906,'1976-07-06','Vamshi','Pranav','pranav17@gmail.com');
insert into Users values('#7841126151',9447075579,'1989-08-17','Raparthi','Susvineeth','susvi@9090@gmail.com');
insert into Users values('#8752802156',8897747252,'2000-05-13','Sai','Kumar','saiair@gmail.com');
insert into Users values('#6529017683',9550837075,'1999-01-26','Hrithik','Rajeev','rajeev77@gmail.com');
insert into Users values('#9870012679',9447075579,'2000-08-17','Kolli','Nitin','Kolli1999@gmail.com');
insert into Users values('#6097236741',9989084776,'1960-09-20','Shaik','Haneef','haneef69@gmail.com');
insert into Users values('#8080712573',9550486626,'1980-08-28','Nallamothu','Anudeepak','anudeepak01@gmail.com');
insert into Users values('#6128090428',8688745892,'1977-10-07','Manoj','Boganandham','manojB@gmail.com');
insert into Users values('#9880792019',7989824339,'1990-04-21','Kiran','Kumar','Kirankumar@gmail.com');
insert into Users values('#5049817294',9966135055,'1995-02-13','Ravi','Shastri','shastri@gmail.com');
insert into Users values('#8700183728',9885763017,'1998-07-17','Prasanna','Kumar','PrasannaK24@gmail.com');
insert into Users values('#7837419348',7222977157,'1987-06-08','Talluri','Karthik','Karthik90@gmail.com');
insert into Users values('#9012747249',9515128028,'1950-08-19','Sohail','Saif','Sahil00@gmail.com');

insert into wallet values('#9001202223',2000);
insert into wallet values('#5632567236',1190);
insert into wallet values('#8965498916',1000);
insert into wallet values('#7841126151',1070);
insert into wallet values('#7841126151',3000);
insert into wallet values('#9870012679',10000);
insert into wallet values('#8080712573',100);
insert into wallet values('#6128090428',570);
insert into wallet values('#5049817294',25000);
insert into wallet values('#9012747249',975);

insert into Preferences values('Daily Needs','Groceries,Supplies,Services and pet care','#9001202223');
insert into Preferences values('Food','Restaurents and food delivery','#9001202223');
insert into Preferences values('Mobiles and Electronics','Mobiles,Electronics and Accessories','#9001202223');
insert into Preferences values('Daily Needs','Groceries,Supplies,Services and pet care','#5632567236');
insert into Preferences values('Beauty and Wellness','Beuty Products,spas and salons','#5632567236');
```

```

insert into Preferences values('Daily Needs', 'Groceries,Supplies,Services and pet care', '#8965498916');
insert into Preferences values('Entertainment', 'MObvies,Events,Music and Video Streaming', '#8965498916');
insert into Preferences values('Fashion and Clothing', 'Fashion and Apparel', '#8965498916');
insert into Preferences values('Health and nutrition', 'Pharmacies,Diagnostics,Medicines,Supplements and Baby care', '#7841126151');
insert into Preferences values('Wealth Management', 'Banking Investment and Insurance', '#7841126151');
insert into Preferences values('Learning Education', 'Online classes,Distance learning,Cources', '#8752802156');
insert into Preferences values('Entertainment', 'MObvies,Events,Music and Video Streaming', '#8752802156');
insert into Preferences values('Fashion and Clothing', 'Fashion and Apparel', '#8752802156');
insert into Preferences values('Online Gaming', 'Real Money Games,Fantasy Games and more', '#6529017683');
insert into Preferences values('Entertainment', 'MObvies,Events,Music and Video Streaming', '#6529017683');
insert into Preferences values('Fashion and Clothing', 'Fashion and Apparel', '#6529017683');
insert into Preferences values('Daily Needs', 'Groceries,Supplies,Services and pet care', '#9870012679');
insert into Preferences values('Wealth Management', 'Banking Investment and Insurance', '#9870012679');
insert into Preferences values('Mobiles and Electronics', 'Mobiles,Electronics and Accessories', '#6097236741');
insert into Preferences values('Entertainment', 'MObvies,Events,Music and Video Streaming', '#6097236741');
insert into Preferences values('Online Gaming', 'Real Money Games,Fantasy Games and more', '#6097236741');
insert into Preferences values('Daily Needs', 'Groceries,Supplies,Services and pet care', '#8080712573');
insert into Preferences values('Entertainment', 'MObvies,Events,Music and Video Streaming', '#8080712573');
insert into Preferences values('Fashion and Clothing', 'Fashion and Apparel', '#8080712573');
insert into Preferences values('Learning Education', 'Online classes,Distance learning,Cources', '#6128090428');
insert into Preferences values('Entertainment', 'MObvies,Events,Music and Video Streaming', '#6128090428');
insert into Preferences values('Fashion and Clothing', 'Fashion and Apparel', '#6128090428');
insert into Preferences values('Online Gaming', 'Real Money Games,Fantasy Games and more', '#9880792019');
insert into Preferences values('Entertainment', 'MObvies,Events,Music and Video Streaming', '#9880792019');
insert into Preferences values('Fashion and Clothing', 'Fashion and Apparel', '#9880792019');
insert into Preferences values('Health and nutrition', 'Pharmacies,Diagnostics,Medicines,Supplements and Baby care', '#5049817294');
insert into Preferences values('Wealth Management', 'Banking Investment and Insurance', '#5049817294');
insert into Preferences values('Daily Needs', 'Groceries,Supplies,Services and pet care', '#8700183728');
insert into Preferences values('Beauty and Wellness', 'Beuty Products,spas and salons', '#8700183728');

```

```

insert into Preferences values('Learning Education', 'Online classes, Distance learning,Cources', '#7837419348');
insert into Preferences values('Entertainment', 'Mobicies,Events,Music and Video Streaming', '#7837419348');
insert into Preferences values('Fashion and Clothing', 'Fashion and Apparel', '#7837419348');
insert into Preferences values('Health and nutrition', 'Pharmacies,Diagnostics,Medicines,Supplements and Baby care', '#9012747249');
insert into Preferences values('Wealth Management', 'Banking Investment and Insurance', '#9012747249');

insert into History values(9070127029,1000,'Debited',90897374912,'#9001202223','2022-02-15');
insert into History values(8973625829,750,'Credited',91987491094,'#9001202223','2022-01-25');
insert into History values(1782619824,90,'Failed Debit',76349191849,'#9001202223','2022-01-15');
insert into History values(9274192090,2150,'Debited',92840129809,'#5632567236',,2022-04-15');
insert into History values(0183129382,9100,'Processing',83741982731,'#5632567236','2022-04-13');
insert into History values(8573928475,89,'Credited',84752934798,'#5632567236','2022-04-12');
insert into History values(1791329748,2151,'Debited',12484019809,'#8965498916','2022-03-15');
insert into History values(2841024024,910,'Credited',12441982731,'#8965498916','2022-02-15');
insert into History values(2847192847,811,'Failed Debit',10294829345,'#7841126151','2021-11-15');
insert into History values(4759372959,2000,'Credited',84752391872,'#7841126151','2021-10-24');
insert into History values(9274192090,1000,'Debited',80192812011,'#8752802156','2022-05-06');
insert into History values(1298401028,2904,'Credited',12984019284,'#8752802156','2022-05-05');
insert into History values(0192840199,10000,'Debited',98275229809,'#6529017683','2022-05-12');
insert into History values(1248102482,29999,'Failed Debit',84739760129,'#6529017683','2022-04-13');
insert into History values(1982419200,8492,'Debited',85673923857,'#9870012679','2022-02-15');
insert into History values(8398479284,5000,'Credited',29385198573,'#9870012679','2022-02-11');
insert into History values(7465293879,39000,'Debited',24967374912,'#6097236741','2022-08-15');
insert into History values(8290485208,70000,'Debited',91485731094,'#6097236741','2021-12-15');
insert into History values(2459285474,37400,'Debited',76298357298,'#6097236741','2021-11-15');
insert into History values(7659287298,7490,'Credited',75949284301,'#8080712573','2022-01-15');
insert into History values(6293875292,750,'Credited',12836859026,'#8080712573','2022-01-01');
insert into History values(6592301384,3500,'Debitted',76849318247,'#6128090428','2022-03-15');
insert into History values(7645832937,105,'Failed Debit',29374627385,'#6128090428','2022-02-25');

```

```

insert into History values(3848293874,5000,'Debited',48576394862,'#9880792019','2021-07-22');
insert into History values(6548238431,60000,'Processing',56293757291,'#5049817294','2022-01-04');
insert into History values(1349137435,7020,'Debited',73645819204,'#8700183728','2021-10-24');
insert into History values(1398491833,2002,'Processing',18346582912,'#8700183728','2021-10-15');
insert into History values(8475928453,2150,'Debited',92735834650,'#7837419348','2021-12-15');
insert into History values(2342549375,910,'Processing',18391275638,'#7837419348','2021-08-15');
insert into History values(8372958298,890,'Processing',19283465789,'#7837419348','2021-08-04');
insert into History values(2736523841,650,'Credited',73912748912,'#9012747249','2022-04-15');

insert into Contacts values('Ravi Chandar',9102983751,'#9001202223');
insert into Contacts values('James Mich',9228479192,'#9001202223');
insert into Contacts values('Uma Mahesh',9847928372,'#9001202223');
insert into Contacts values('Srinivas',8023572938,'#9001202223');
insert into Contacts values('Rithik',7023857203,'#9001202223');
insert into Contacts values('Navyanth',8492834234,'#9001202223');
insert into Contacts values('Rajesh',7983749122,'#5632567236');
insert into Contacts values('Ganda Sumant',7242938742,'#5632567236');
insert into Contacts values('Ranjit patel',6349283742,'#5632567236');
insert into Contacts values('Urviraj',9283742734,'#5632567236');
insert into Contacts values('Cansilina',8237592352,'#5632567236');
insert into Contacts values('Susvineeth',9813847124,'#8965498916');
insert into Contacts values('Easwar',8475923423,'#8965498916');
insert into Contacts values('Balaji',8573293875,'#8965498916');
insert into Contacts values('Tene Linsica',9385939847,'#7841126151');
insert into Contacts values('Ameer',7592837582,'#7841126151');
insert into Contacts values('Nithin',9193413875,'#7841126151');
insert into Contacts values('Tharun',7692398413,'#7841126151');
insert into Contacts values('Silis',6293098384,'#7841126151');
insert into Contacts values('Devesh',8932752933,'#8752802156');
insert into Contacts values('Karthik',9935987358,'#8752802156');
insert into Contacts values('Amog',7029387951,'#8752802156');
insert into Contacts values('Linen',8983752938,'#6529017683');
insert into Contacts values('Shiva',9843752989,'#6529017683');
insert into Contacts values('Rama',7983758153,'#6529017683');
insert into Contacts values('Sai Kumar',7238579381,'#6529017683');
insert into Contacts values('Ramya Sai',6038298572,'#9870012679');
insert into Contacts values('Tony Stark',6038298572,'#9870012679');
insert into Contacts values('Chris Hems',6038298572,'#9870012679');

insert into Plan values(192899,'Recharge','3-Months,2Gb/Day,Unlimited talktime,sms',789,'84 days','#9001202223');
insert into Plan values(192899,'Fastag','1 month,NH in Telangana',900,'3 months','#5632567236');
insert into Plan values(192899,'DTH','3 month, unlimited channels',2000,'84 days','#8965498916');
insert into Plan values(192899,'Cable Tv','3 months, All channels',289,'84 days','#7841126151');
insert into Plan values(192899,'Recahrge','3-Months,1Gb/Day,Unlimited talktime,sms',700,'84 days','#9012747249');

```

```

insert into Plan values(192899,'Fastag','1 month,NH in southern states',2000,'28
days','#8752802156');
insert into Plan values(192899,'DTH','1 month, Sony channels',189,'28
days','#6529017683');
insert into Plan values(192899,'Recharge','1-Months,1Gb/Day,Unlimited
talktime,sms',289,'28 days','#7837419348');
insert into Plan values(192899,'Recharge','2-Months,2Gb/Day,Unlimited
talktime,sms',506,'56 days','#8700183728');
insert into Plan values(192899,'Cable TV','1 month,Disney Channels',270,'31
days','#9880792019');
insert into Plan values(192899,'Bike Insurance','1 year,Rupees:1.5/day',548,'365
days','#6097236741');

insert into Transaction values(9070127029,1000,'Debited',90897374912);
insert into Transaction values(8973625829,750,'Credited',91987491094);
insert into Transaction values(1782619824,90,'Failed Debit',76349191849);
insert into Transaction values(9274192090,2150,'Debited',92840129809);
insert into Transaction values(0183129382,9100,'Processing',83741982731);
insert into Transaction values(8573928475,89,'Credited',84752934798);
insert into Transaction values(1791329748,2151,'Debited',12484019809);
insert into Transaction values(2841024024,910,'Credited',12441982731);
insert into Transaction values(2847192847,811,'Failed Debit',10294829345);
insert into Transaction values(4759372959,2000,'Credited',84752391872);
insert into Transaction values(9274192090,1000,'Debited',80192812011);
insert into Transaction values(1298401028,2904,'Credited',12984019284);
insert into Transaction values(0192840199,10000,'Debited',98275229809);
insert into Transaction values(1248102482,29999,'Failed Debit',84739760129);
insert into Transaction values(1982419200,8492,'Debited',85673923857);
insert into Transaction values(8398479284,5000,'Credited',29385198573);
insert into Transaction values(7465293879,39000,'Debited',24967374912);
insert into Transaction values(8290485208,70000,'Debited',91485731094);
insert into Transaction values(2459285474,37400,'Debited',76298357298);
insert into Transaction values(7659287298,7490,'Credited',75949284301);
insert into Transaction values(6293875292,750,'Credited',12836859026);
insert into Transaction values(6592301384,3500,'Debitted',76849318247);
insert into Transaction values(7645832937,105,'Failed Debit',29374627385);
insert into Transaction values(3848293874,5000,'Debited',48576394862,);
insert into Transaction values(6548238431,60000,'Processing',56293757291);
insert into Transaction values(1349137435,7020,'Debited',73645819204);
insert into Transaction values(1398491833,2002,'Processing',18346582912);
insert into Transaction values(8475928453,2150,'Debited',92735834650);
insert into Transaction values(2342549375,910,'Processing',18391275638);
insert into Transaction values(8372958298,890,'Processing',19283465789);
insert into Transaction values(2736523841,650,'Credited',73912748912);


```

```

insert into Receipt values(9070127029,1000);
insert into Receipt values(8973625829,750);
insert into Receipt values(9274192090,2150);
insert into Receipt values(8573928475,89);
insert into Receipt values(1791329748,2151);
insert into Receipt values(2841024024,910);
insert into Receipt values(4759372959,2000);
insert into Receipt values(9274192090,1000);
insert into Receipt values(1298401028,2904);
insert into Receipt values(0192840199,10000);
insert into Receipt values(1982419200,8492);
insert into Receipt values(8398479284,5000);


```

```

insert into Receipt values(7465293879,39000);
insert into Receipt values(8290485208,70000);
insert into Receipt values(2459285474,37400);
insert into Receipt values(7659287298,7490);
insert into Receipt values(6293875292,750);
insert into Receipt values(6592301384,3500);
insert into Receipt values(3848293874,5000);
insert into Receipt values(1349137435,7020);;
insert into Receipt values(8475928453,2150);
insert into Receipt values(2736523841,650);

insert into Account values(94200115456,'Savings','SBIN4854942','#9001202223');
insert into Account values(74600115726,'Fixed deposit','SBIN5354146','#5632567236');
insert into Account values(84200115453,'Savings','HDFC1554241','#8965498916');
insert into Account values(94200115118,'Salary','SBIN6754342','#7841126151');
insert into Account values(95820115210,'Fixed deposit','SBIN7864743','#8752802156');
insert into Account values(96800115496,'Savings','HDFC1504544','#6529017683');
insert into Account values(86110115486,'NRI Acc','ICIC0154648','#9870012679');
insert into Account values(35200115486,'Fixed deposit','SBIN5254745','#6097236741');
insert into Account values(64700115410,'NRI Acc','HDFC3654847','#8080712573');
insert into Account values(91000115115,'Savings','SBIN4954949','#6128090428');
insert into Account values(21200115435,'Salary','SBIN7554740','#9880792019');
insert into Account values(78200115429,'Salary','ICIC8654047','#5049817294');
insert into Account values(58600115424,'Fixed deposit','KOMH7414149','#8700183728');
insert into Account values(94850115453,'Savings','ICIC1146944','#7837419348');
insert into Account values(94484115412,'Fixed deposit','UNIN1154713','#9012747249');

insert into Card values(6523487915263245,122,05,24,'EASHWAR',94200115456);
insert into Card values(1463487915263961,746,12,25,'MAHESH',74600115726);
insert into Card values(7823487915263783,142,08,22,'PRANAV',84200115453);
insert into Card values(6523487915263487,865,12,24,'SUSVINEET',94200115118);
insert into Card values(1023487915263569,985,07,22,'SAI KUMAR',95820115210);
insert into Card values(5222687915263546,457,12,22,'RAJEEV',96800115496);
insert into Card values(4523487915263844,866,10,26,'NITIN',86110115486);
insert into card values(1203487915263143,944,11,24,'HANEEF',35200115486);
insert into Card values(4623487915263040,952,10,23,'ANUDEEPAK',64700115410);

insert into UPI values('94208791@yui','NQPR',94200115456);
insert into UPI values('48408791@pml','OMPC',74600115726);
insert into UPI values('74215291@opi','AMPF',84200115453);
insert into UPI values('84208791@yop','PFHG',94200115118);
insert into UPI values('64508791@cji','UMGP',95820115210);
insert into UPI values('14508791@rrri','OMDU',96800115496);
insert into UPI values('54256791@pop','JMGK',86110115486);
insert into UPI values('64208481@kol','YVNG',35200115486);
insert into UPI values('74208485@pae','IMGP',64700115410);
insert into UPI values('40208791@usa','PONT',91000115115);
insert into UPI values('94207291@ini','TBRF',21200115435);
insert into UPI values('37505791@rfi','OMNG',78200115429);
insert into UPI values('84203591@ikc','RCYT',58600115424);
insert into UPI values('34208715@lok','IUNY',94850115453);
insert into UPI values('44208704@tor','EVCY',94484115412);

insert into Login values('94208791@yui','NQPANR');
insert into Login values('48408791@pml','OMPCIM');
insert into Login values('74215291@opi','AMPFOK');
insert into Login values('84208791@yop','PFDIHG');
insert into Login values('64508791@cji','UMOKGP');

```

```

insert into Login values('14508791@rri','OMPLDU');
insert into Login values('54256791@pop','JMGLIK');
insert into Login values('64208481@kol','YVNENG');
insert into Login values('74208485@pae','IMGUEP');
insert into Login values('40208791@usa','PONTOK');
insert into Login values('94207291@ini','TBRLBF');
insert into Login values('37505791@rfi','OMNGMG');
insert into Login values('84203591@ikc','RCYTQB');
insert into Login values('34208715@lok','IUNYAU');
insert into Login values('44208704@tor','EVCYWJ');

insert into Rewards values(9070127029,'Cashback',null,null,100);
insert into Rewards values(8973625829,'UBER trip','2022-09-01','ALGODL',20);
insert into Rewards values(9274192090,'Cashback',null,null,215);
insert into Rewards values(8573928475,'LensKart','2022-12-26','ARRRLL',1000);
insert into Rewards values(1791329748,'BookmyShow',null,null,151);
insert into Rewards values(2841024024,'Swiggy',null,null,91);
insert into Rewards values(4759372959,'Cashback',null,null,200);
insert into Rewards values(9274192090,'UBER trip','2022-12-01','SYELOF',20);
insert into Rewards values(1298401028,'Trends','2022-09-25','LMGELL',402);
insert into Rewards values(0192840199,'ZOMATO','2022-09-01','WMOOLL',699);
insert into Rewards values(1982419200,'AJIO offer','2022-09-01','UNGOLL',1901);
insert into Rewards values(8398479284,'Cashback',null,null,500);
insert into Rewards values(7465293879,'AJIO offer','2022-07-01','LIFOLL',913);
insert into Rewards values(8290485208,'Zomato','2022-09-01','CKOOLL',19);
insert into Rewards values(2459285474,'Rapido','2022-06-01','YKYOPY',900);
insert into Rewards values(7659287298,'Slice card','2022-10-01','MLUOOL',719);
insert into Rewards values(6293875292,'Zomato','2022-09-01','MKUOMF',2000);
insert into Rewards values(6592301384,'Cashback',null,null,350);
insert into Rewards values(3848293874,'Cashback',null,null,500);
insert into Rewards values(1349137435,'AJIO offer','2022-09-01','LOUOLL',700);
insert into Rewards values(8475928453,'Zomato','2022-12-01','MKFILL',282);
insert into Rewards values(2736523841,'Samsung mobiles','2022-11-01','NJIOLL',900);

```

## TRIGGERS

```
Create or replace trigger tr_upi
After INSERT or DELETE on UPI
For each row
Enable
Declare
Begin
    IF Inserting then
        insert into Login values(:New.UPI_id,:New.UPI_pin);
    ELSIF Deleting then
        Delete from Login where UPI_id=:New.UPI_id;
    End if;
end;
```

## QUERIES

**Which plan is selected by most of the people?**

```
Select plan_id, count(*) as n  
from Plan  
where Rownum = 1  
Group by plan_id  
order by count(*) desc;
```

PLAN_ID	N
192889	1

[Download CSV](#)

**List out the rewards that are active now**

```
Select Trans_id, descrip  
from Rewards  
where Expiry > (select sysdate from dual);
```

TRANS_ID	DESCRIP
8573928475	LensKart
1298401028	Trends
1982419200	AJIO offer
1349137435	AJIO offer
8475928453	Zomato
2736523841	Samsung mobiles
7659287298	Slice card
6293875292	Zomato
8973625829	UBER trip