**/\***

**Create table account(**

**acc\_id int primary key,**

**acc\_name text not null,**

**phno varchar unique,**

**email varchar not null,**

**city text not null**

**);**

**\*/**

**/\***

**Create table balance(**

**acc\_id int,**

**balance\_amt float,**

**constraint fk1**

**foreign key(acc\_id)**

**references account(acc\_id)**

**);**

**\*/**

**/\***

**Create table trans(**

**tno serial primary key,**

**acc\_id int,**

**amt\_tran float,**

**transaction\_type text,**

**constraint fk2**

**foreign key(acc\_id)**

**references account(acc\_id)**

**);**

**\*/**

**/\***

**Create table loan(**

**loan\_no serial primary key,**

**acc\_id int,**

**amount float,**

**constraint fk3**

**foreign key (acc\_id)**

**references account(acc\_id)**

**);**

**\*/**

**/\***

**Create table branch(**

**bid varchar primary key,**

**bname text unique,**

**bcity text not null,**

**assets int not null**

**);**

**\*/**

**/\***

**Create table branch\_acc(**

**bid varchar,**

**acc\_id int,**

**constraint fk4**

**foreign key (bid)**

**references branch(bid),**

**constraint fk5**

**foreign key(acc\_id)**

**references account(acc\_id)**

**);**

**\*/**

**/\***

**Create table agent(**

**agent\_id varchar primary key,**

**agent\_name text not null,**

**agent\_phno varchar unique not null,**

**agent\_comm float,**

**agent\_email varchar not null,**

**agent\_address varchar**

**);**

**\*/**

**/\***

**Create table acc\_agent(**

**acc\_id int,**

**agent\_id varchar,**

**constraint fk6**

**foreign key(acc\_id)**

**references account(acc\_id),**

**constraint fk7**

**foreign key(agent\_id)**

**references agent(agent\_id)**

**);**

**\*/**

**/\***

**Create table trans\_back(**

**tno serial primary key,**

**acc\_id int,**

**amt\_tran float,**

**transaction\_type text,**

**date\_info date**

**);**

**\*/**

**/\***

**Create or replace procedure proc1( i int, j float )**

**Language plpgsql as $$**

**begin**

**insert into balance(acc\_id,balance\_amt) values (i,j);**

**commit;**

**end; $$**

**\*/**

**/\***

**Create or replace procedure proc2(sender int, receiver int, amount float)**

**Language plpgsql as $$**

**Begin**

**--subtracting the amount from sender acc**

**Update balance set balance\_amt= balance\_amt-amount**

**Where acc\_id=sender;**

**Insert into trans(acc\_id,amt\_tran,transaction\_type)**

**Values (sender,amount,’Debit’);**

**--adding the amount to receiver account**

**Update balance set balance\_amt= balance\_amt+amount**

**Where acc\_id=receiver;**

**Insert into trans(acc\_id,amt\_tran,transaction\_type)**

**Values (receiver,amount,’credit’);**

**Commit;**

**End;$$**

**\*/**

**/\***

**Create or replace procedure proc3(i int, b float)**

**Language plpgsql as $$**

**begin**

**Insert into loan (acc\_id,amount) values (i , b);**

**Commit;**

**End; $$**

**\*/**

**/\***

**Create or replace procedure proc4(i varchar,j int)**

**Language plpgsql as $$**

**Begin**

**Insert into branch\_acc(bid,acc\_id) values(i,j);**

**Commit;**

**End;$$**

**\*/**

**/\***

**Create or replace procedure proc5(i int, j varchar)**

**Language plpgsql as $$**

**Begin**

**Insert into acc\_agent(acc\_id,agent\_id) values(i,j);**

**Commit;**

**End;$$**

**\*/**

**/\***

**Create or replace function fun3(i int)**

**Returns float as $tot$**

**Declare**

**tot float;**

**begin**

**select sum(amount) into tot from loan where acc\_id=i;**

**return tot;**

**end;**

**$tot$ language plpgsql;**

**\*/**

**/\***

**Create or replace function fun4(i int)**

**Returns int as $tot$**

**Declare**

**tot int;**

**begin**

**select count(\*) into tot from loan group by acc\_id having acc\_id=i;**

**return tot;**

**end;**

**$tot$ language plpgsql;**

**\*/**

**/\***

**Create or replace function fun5()**

**Returns varchar as $aid$**

**Declare**

**aid varchar;**

**begin**

**Select agent\_id into aid from acc\_agent group by agent\_id order by count(\*) desc limit 1;**

**Return aid;**

**end;**

**$aid$ language plpgsql;**

**\*/**

**/\***

**Create or replace function fun6()**

**Returns int as $top$**

**Declare**

**top int;**

**begin**

**Select acc\_id into top from balance order by balance\_amt desc limit 1;**

**Return top;**

**end;**

**$top$ language plpgsql;**

**\*/**

**/\***

**Create or replace function fun7()**

**Returns int as $top$**

**Declare**

**top int;**

**begin**

**Select acc\_id into top from trans group by acc\_id order by count(\*) desc limit 1;**

**Return top;**

**end;**

**$top$ language plpgsql;**

**\*/**

**Create trigger mytrig4**

**before delete**

**On trans**

**For each row**

**Execute procedure fun20();**

**Create or replace function fun20()**

**Returns trigger as $mytrig4$**

**Begin**

**insert into trans\_back(tno,acc\_id,amt\_tran,transaction\_type,date\_info) values(old.tno,old.acc\_id,old.amt\_tran,old.transaction\_type,current\_date);**

**Return old;**

**End;**

**$mytrig4$ language plpgsql;**

**/\***

**Create user user1**

**Login**

**Password 'Pass123';**

**\*/**

**/\***

**GRANT SELECT**

**ON account,balance,trans,loan,branch,branch\_acc,agent,acc\_agent,trans\_back**

**To user1**

**\*/**

**/\***

**Create user user2**

**Login**

**Password 'Pass123';**

**\*/**

**/\***

**GRANT SELECT**

**ON account,balance,trans,loan,branch,branch\_acc,agent,acc\_agent,trans\_back**

**To user2;**

**\*/**

**/\***

**insert into account values(1001,'Daniel Alvez','812-232-2234','Daniel@123.com','Hyderabad'),**

**(1002,'Ribery Consta','948-011-3341','Costa@123.com','Mumbai'),**

**(1003,'Maradona Segio','978-097-3341','Sergio@123.com','Delhi'),**

**(1004,'Berlin Catyio','916-007-3041','Berlin@123.com','Punjab'),**

**(1005,'Neymar Sinzuke','788-907-3221','Neymar@123.com','Maharashtra'),**

**(1006,'Kane Alba','889-900-3834','Kane@123.com','Hyderabad'),**

**(1007,'Martinez kiyo','708-997-6342','Kiyo@123.com','Hyderabad'),**

**(1008,'Karen Jarvez','908-007-9343','Karen@123.com','Mumbai'),**

**(1009,'Tom Hardy','928-007-3347','Tom@123.com','Mumbai'),**

**(1010,'Sargiu Alfa','914-007-3342','Alfa@123.com','Delhi'),**

**(1011,'Maria Gomez','702-007-3349','Gomez@123.com','Punjab'),**

**(1012,'Juventiz Suarez','772-274-3343','Suarez@123.com','Punjab'),**

**(1013,'Cristain Lopez','948-254-3391','Cristain@123.com','Bangalore'),**

**(1014,'Justin Dokem','945-238-3234','Justin@123.com','Punjab'),**

**(1015,'Demi Cokri','947-231-3098','Demi@123.com','Bangalore'),**

**(1016,'Luke Cage','918-239-3301','Luke@123.com','Mumbai'),**

**(1017,'Berry Alan','998-230-3491','Berry@123.com','Hyderabad'),**

**(1018,'Carl Alberto','910-284-9391','Carl@123.com','Bangalore'),**

**(1019,'Jimmy Lesner','909-204-8391','Jimmy@123.com','Hyderabad'),**

**(1020,Health Ledger,'810-204-8291','Ledger@123.com','Bangalore’);**

**\*/**

**/\***

**insert into branch values('B101','Noorbazar SBI','Mumbai',200000),**

**('B102','Hdfc Masabtank','Hyderabad',500000),**

**('B103','ICICI RT nagar','Bangalore',100000),**

**('B104','Noida Kotak','Punjab',400000),**

**('B107','Punjab bank Gulsannagar','Maharashtra',100000),**

**('B108','Axis Delhi','Delhi',500000);**

**\*/**

**/\***

**insert into agent values('A5001','Sammy Daek','990-223-1234','sammy@hotmail.com','Hyderabad'),**

**('A5002','Cristaino Balemy','977-103-1344','Balemy@gmail.com','Mumbai'),**

**('A5003','Sergio Dragos','890-563-1764','Dragos@Yahoomail.com','Delhi'),**

**('A5004','Ribery Costa','870-987-6543','Ribery@hotmail.com','Punjab'),**

**('A5005','Rooney martino','978-282-1762','Rooney@outlookmail.com','Maharastra'),**

**('A5006','Silva Dom','823-097-3447','Ribery@hotmail.com','Hyderbad'),**

**('A5007','Alberto Nemo','845-127-0943','Nemo@hotmail.com','Delhi'),**

**('A5008','David Veroz','998-347-8941','David@hotmail.com','Punjab'),**

**('A5009','Carry Bemor','887-997-8042','Carry@hotmail.com','Mumbai'),**

**('A5010','Dostre Aakhan','800-937-2340','Aakhan@hotmail.com','Maharashtra'),**

**('A5011','Vesilius Bolse','780-917-8798','Bolse@hotmail.com','Delhi'),**

**('A5012','Elom Kush','990-927-4309','Kush@hotmail.com','Punjab');**

**('A5013','Bieber Rush','793-927-4309','Rush@hotmail.com','Bangalore');**

**\*/**

**--call proc1(1020,5100);**

**--select \* from balance;**

**--call proc4('B103',1020);**

**--select \* from branch;**

**--select \* from branch\_acc;**

**--select \* from account;**

**--call proc5(1020,'A5013');**

**--SELECT \* FROM ACC\_AGENT ORDER BY ACC\_ID;**

**--select agent\_id,count(\*) from acc\_agent group by agent\_id order by count(\*) desc;**

**--call proc5(1020,'A5013');**

**--select \* from acc\_agent;**

**--call proc3(1020,1200);**

**--select \* from loan;**

**--call proc2(1019,1015,400);**

**--select \* from trans;**

**--select \* from loan;**

**--select fun3(1001);**

**--select fun4(1001);**

**--select \* from acc\_agent;**

**--select fun5();**

**--select \* from balance;**

**--select fun6();**

**--select \* from trans;**

**--select fun7();**

**--when user deletes a transaction from trans table it should be stored as a backup in trans\_back table**

**--select \* from trans;**

**--delete from trans where tno=14;**

**--select \* from trans\_back;**