MADHUMITHA.S

19PW13

CREATE TABLE IF NOT EXISTS CUSTOMER(CUSTOMERID VARCHAR(4) UNIQUE NOT NULL PRIMARY KEY,CUSTOMERNAME VARCHAR(20)UNIQUE NOT NULL,DATEOFBIRTH DATE,GENDER VARCHAR(1),CITY VARCHAR(20),CONSTRAINT CUSTID CHECK(ASCII(LEFT(CUSTOMERID,1))=ASCII('C')),CONSTRAINT CUSTNAME CHECK(CUSTOMERNAME=UPPER(CUSTOMERNAME)),CONSTRAINT AGE CHECK(TIMESTAMPDIFF(YEAR,CURRENT\_DATE,DATEOFBIRTH)>18),CONSTRAINT GENDER\_CHECK CHECK(GENDER IN('M','F')),CONSTRAINT CITY\_CHECK CHECK(ASCII(LEFT(CITY,1))BETWEEN ASCII('A') AND ASCII('Z')));

CREATE TABLE IF NOT EXISTS ACCOUNT(CUSTOMERID VARCHAR(4) PRIMARY KEY,ACCOUNTTYPE VARCHAR(1) PRIMARY KEY,OPENINGDATE DATE ,INITIALAMOUNT INT,CONSTRAINT CID\_FK FOREIGN KEY(CUSTOMERID) REFERENCES CUSTOMER(CUSTOMERID),CONSTRAINT ACC\_CHECK CHECK(ACCOUNTTYPE IN('C','S')),CONSTRAINT ODATE\_CHECK CHECK(OPENINGDATE>31-12-2001),CONSTRAINT IAMOUNT\_CHECK CHECK(INITIALAMOUNT BETWEEN 1000 AND 5000));

CREATE TABLE IF NOT EXISTS TRANSACTION(CUSTOMERID VARCHAR(4) PRIMARY KEY,DEPOSIT INT,WITHDRAWAL INT,DATEOFTRANSACTION DATE PRIMARY KEY,CONSTRAINT FK FOREIGN KEY(CUSTOMERID) REFERENCES CUSTOMER(CUSTOMERID),CONSTRAINT CID\_CAPS CHECK(ASCII(LEFT(CUSTOMERID,1))=ASCII('C')),CONSTRAINT DEP CHECK(DEPOSIT>100),CONSTRAINT WITHD CHECK(WITHDRAWAL>1000),CONSTRAINT DOT CHECK(DATEOFTRANSACTION>31-12-2001));

INSERT INTO CUSTOMER VALUES ('C01','VINITH','1980/12/02','F','Cbe');

INSERT INTO CUSTOMER VALUES ('C02','MONIKA','1977/04/12','F','Chennai');

INSERT INTO CUSTOMER VALUES ('C03','VASANTHI','1978/10/10','M','Bombay');

INSERT INTO CUSTOMER VALUES ('C04','NITHIN','1970/05/01','M','Cbe');

INSERT INTO ACCOUNT VALUES ('C01','S','2001/10/10',1000),('C02','S','2001/11/10',2000);

INSERT INTO ACCOUNT VALUES ('C03','C','2001/10/19',5000),('C04','C','2002/01/29',2000);

INSERT INTO ACCOUNT VALUES ('C04','S','2002/01/29',2000)

INSERT INTO TRANSACTION VALUES('C01',1000, NULL,'2008/01/01');

INSERT INTO TRANSACTION VALUES('C02',2000, NULL,'2008/01/02');

INSERT INTO TRANSACTION VALUES('C03',NULL, 500,'2008/01/02');

INSERT INTO TRANSACTION VALUES('C01',NULL, 2000,'2008/01/03');

INSERT INTO TRANSACTION VALUES('C02',1000, NULL,'2008/01/03');

INSERT INTO TRANSACTION VALUES('C03',2000, NULL,'2008/01/03');

INSERT INTO TRANSACTION VALUES('C01',NULL, 1000,'2008/01/04');

INSERT INTO TRANSACTION VALUES('C03',NULL, 5000,'2008/01/04');

INSERT INTO TRANSACTION VALUES('C02',NULL, 1200,'2008/01/05');

INSERT INTO TRANSACTION VALUES('C03',1200, NULL,'2008/01/05');

ANSWERS:

1.SELECT CUSTOMERNAME FROM CUSTOMER WHERE CUSTOMERID NOT IN(SELECT CUSTOMERID FROM TRANSACTION);

2. SELECT T.CUSTOMERID,C.CUSTOMERNAME,T.DEPOSIT,T.WITHDRAWAL FROM CUSTOMER C INNER JOIN TRANSACTION T ON C.CUSTOMERID=T.CUSTOMERID;

3. SELECT CUSTOMERID,SUM(DEPOSIT)-SUM(WITHDRAWAL) FROM TRANSACTION WHERE CUSTOMERID='C01' AND DATEOFTRANSACTION<'2008/01/06';

4. SELECT C.CUSTOMERID,C.CUSTOMERNAME FROM CUSTOMER C INNER JOIN TRANSACTION T USING(CUSTOMERID) GROUP BY C.CUSTOMERID ORDER BY COUNT(\*) DESC LIMIT 1;

5. SELECT CUSTOMERID, CUSTOMERNAME,TIMESTAMPDIFF(YEAR,DATEOFBIRTH,CURRENT\_DATE) AS AGE FROM CUSTOMER WHERE TIMESTAMPDIFF(YEAR,DATEOFBIRTH,CURRENT\_DATE)=(SELECT MIN(TIMESTAMPDIFF(YEAR,DATEOFBIRTH,CURRENT\_DATE)) FROM CUSTOMER);

6. ALTER TABLE CUSTOMER

ADD FINALBALANCE INT;

UPDATE CUSTOMER C SET FINALBALANCE= (

SELECT SUM(DEPOSIT) - SUM(WITHDRAWAL) as 'FINALBALANCE'

FROM TRANSACTION

WHERE CUSTOMERID= C.CUSTOMERID

GROUP BY CUSTOMERID

) WHERE FinalBalance = 0;