

Write difference between Primary key and Foreign key

```
CREATE TABLE customer
(
    custid VARCHAR(6),
    fname VARCHAR(30),
    mname VARCHAR(30),
    lname VARCHAR(30),
    city VARCHAR(15),
    mobileno VARCHAR(10),
    occupation VARCHAR(10),
    dob DATE,
    CONSTRAINT customer_custid_pk PRIMARY KEY(custid)
);
```

```
CREATE TABLE branch
(
    bid VARCHAR(6),
    bname VARCHAR(30),
    bcity VARCHAR(30),
    CONSTRAINT branch_bid_pk PRIMARY KEY(bid)
);
```

```
CREATE TABLE account
(
    acnumber VARCHAR(6),
    custid VARCHAR(6),
    bid VARCHAR(6),
    opening_balance INT(7),
    aod DATE,
    atype VARCHAR(10),
    astatus VARCHAR(10),
    CONSTRAINT account_acnumber_pk PRIMARY KEY(acnumber),
    CONSTRAINT account_custid_fk FOREIGN KEY(custid) REFERENCES
customer(custid),
    CONSTRAINT account_bid_fk FOREIGN KEY(bid) REFERENCES
branch(bid)
);
```

```
CREATE TABLE trandetails
(
    tnumber VARCHAR(6),
    acnumber VARCHAR(6),
    dot DATE,
    medium_of_transaction VARCHAR(20),
    transaction_type VARCHAR(20),
    transaction_amount INT(7),
    CONSTRAINT trandetails_tnumber_pk PRIMARY KEY(tnumber),
    CONSTRAINT trandetails_acnumber_fk FOREIGN KEY(acnumber)
REFERENCES account(acnumber)
);
```

```

CREATE TABLE loan
(
    custid VARCHAR(6),
    bid VARCHAR(6),
    loan_amount INT(7),
    CONSTRAINT loan_customer_custid_bid_pk PRIMARY KEY(custid,bid),
    CONSTRAINT loan_custid_fk FOREIGN KEY(custid) REFERENCES
customer(custid),
    CONSTRAINT loan_bid_fk FOREIGN KEY(bid) REFERENCES  branch(bid)
);

--Records for the bank customers

INSERT INTO customer
VALUES('C00001','Ramesh','Chandra','Sharma','Delhi','9543198345','Service','1976-12-06');
INSERT INTO customer
VALUES('C00002','Avinash','Sunder','Minha','Delhi','9876532109','Service','1974-10-16');
INSERT INTO customer
VALUES('C00003','Rahul',null,'Rastogi','Delhi','9765178901','Student','1981-09-26');
INSERT INTO customer
VALUES('C00004','Parul',null,'Gandhi','Delhi','9876532109','Housewife','1976-11-03');
INSERT INTO customer
VALUES('C00005','Naveen','Chandra','Aedekar','Mumbai','8976523190','Service','1976-09-19');
INSERT INTO customer
VALUES('C00006','Chitresh',null,'Barwe','Mumbai','7651298321','Student','1992-11-06');
INSERT INTO customer
VALUES('C00007','Amit','Kumar','Borkar','Mumbai','9875189761','Student','1981-09-06');
INSERT INTO customer
VALUES('C00008','Nisha',null,'Damle','Mumbai','7954198761','Service','1975-12-03');
INSERT INTO customer
VALUES('C00009','Abhishek',null,'Dutta','Kolkata','9856198761','Service','1973-05-22');
INSERT INTO customer
VALUES('C00010','Shankar',null,'Nair','Chennai','8765489076','Service','1976-07-12');

--Records for the bank branches

INSERT INTO branch VALUES('B00001','Asaf ali road','Delhi');
INSERT INTO branch VALUES('B00002','New delhi main branch','Delhi');
INSERT INTO branch VALUES('B00003','Delhi cantt','Delhi');
INSERT INTO branch VALUES('B00004','Jasola','Delhi');
INSERT INTO branch VALUES('B00005','Mahim','Mumbai');
INSERT INTO branch VALUES('B00006','Vile parle','Mumbai');
INSERT INTO branch VALUES('B00007','Mandvi','Mumbai');

```

```
INSERT INTO branch VALUES('B00008','Jadavpur','Kolkata');
INSERT INTO branch VALUES('B00009','Kodambakkam','Chennai');
```

--Records for account master

```
INSERT INTO account VALUES('A00001','C00001','B00001',1000,'2012-12-15','Saving','Active');
INSERT INTO account VALUES('A00002','C00002','B00001',1000,'2012-06-12','Saving','Active');
INSERT INTO account VALUES('A00003','C00003','B00002',1000,'2012-05-17','Saving','Active');
INSERT INTO account VALUES('A00004','C00002','B00005',1000,'2013-01-27','Saving','Active');
INSERT INTO account VALUES('A00005','C00006','B00006',1000,'2012-12-17','Saving','Active');
INSERT INTO account VALUES('A00006','C00007','B00007',1000,'2010-08-12','Saving','Suspended');
INSERT INTO account VALUES('A00007','C00007','B00001',1000,'2012-10-02','Saving','Active');
INSERT INTO account VALUES('A00008','C00001','B00003',1000,'2009-11-09','Saving','Terminated');
INSERT INTO account VALUES('A00009','C00003','B00007',1000,'2008-11-30','Saving','Terminated');
INSERT INTO account VALUES('A00010','C00004','B00002',1000,'2013-03-01','Saving','Active');
```

--Records for transaction details

```
INSERT INTO trandetails VALUES('T00001','A00001','2013-01-01','Cheque','Deposit',2000);
INSERT INTO trandetails VALUES('T00002','A00001','2013-02-01','Cash','Withdrawal',1000);
INSERT INTO trandetails VALUES('T00003','A00002','2013-01-01','Cash','Deposit',2000);
INSERT INTO trandetails VALUES('T00004','A00002','2013-02-01','Cash','Deposit',3000);
INSERT INTO trandetails VALUES('T00005','A00007','2013-01-11','Cash','Deposit',7000);
INSERT INTO trandetails VALUES('T00006','A00007','2013-01-13','Cash','Deposit',9000);
INSERT INTO trandetails VALUES('T00007','A00001','2013-03-13','Cash','Deposit',4000);
INSERT INTO trandetails VALUES('T00008','A00001','2013-03-14','Cheque','Deposit',3000);
INSERT INTO trandetails VALUES('T00009','A00001','2013-03-21','Cash','Withdrawal',9000);
INSERT INTO trandetails VALUES('T00010','A00001','2013-03-22','Cash','Withdrawal',2000);
INSERT INTO trandetails VALUES('T00011','A00002','2013-03-25','Cash','Withdrawal',7000);
INSERT INTO trandetails VALUES('T00012','A00007','2013-03-26','Cash','Withdrawal',2000);
```

--Records for loan details

```

INSERT INTO loan VALUES('C00001','B00001',100000);
INSERT INTO loan VALUES('C00002','B00002',200000);
INSERT INTO loan VALUES('C00009','B00008',400000);
INSERT INTO loan VALUES('C00010','B00009',500000);
INSERT INTO loan VALUES('C00001','B00003',600000);
INSERT INTO loan VALUES('C00002','B00001',600000);

```

Problem #1:

Write a query to display the customer number , firstname, customer's date of birth . Display in a sorted order of date of birth year and within that sort by firstname.

Problem #2:

Write a query to display customer's number, first name and middle name. The customer's who don't have middle name, for them display the last name. Give the alias name as Cust_Name.

Problem#3:

Write a query to display account number, customer's number, customer's firstname,lastname,account opening date.

Problem # 4:

Write a query to display the number of customer's from Delhi. Give the count an alias name of Cust_Count.

Problem # 5:

Write a query to display the customer number, customer firstname,account number for the customer's whose accounts were created after 15th of any month.

Problem # 6:

Write a query to display the customer number, firstname, lastname for those client where total loan amount taken is maximum and at least taken from 2 banks.

For example the customer C00012 took a loan of 100000 from bank branch with id B00009 and

C00012 Took a loan of 500000 from bank branch with id B00010.

So total loan amount for customer C00012 is 600000.

C00013 took a loan of 100000 from bank branch B00009 and 200000 from bank branch B00011.

So total loan taken is 300000.

So loan taken by C00012 is more then C00013.

Problem # 7:

Write a query to display all those account number, deposit, withdrawal

where withdrawal is more than deposit amount.

For example A00011 deposited 2000 rupees on 2012-12-01 and 3000 rupees on 2012-12-02. The same account i.e A00011 withdrawn 3000 rupees on 2013-01-01 and 7000 rupees on 2013-01-03. So the total deposited amount is 5000 and total withdrawal amount is 10000. So withdrawal amount is more then deposited for account number A00011.