

## Bank Management System Queries:

1. Please follow instructions given below.

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

Display the records sorted in ascending order based on account number.

```
SELECT account_number, am.customer_number, firstname, lastname, account_opening_date
FROM customer_master cm INNER JOIN account_master am
ON cm.customer_number=am.customer_number
ORDER BY account_number;
```

2. Please follow instructions given below.

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

```
SELECT count(customer_number) Cust_Count
FROM customer_master
WHERE customer_city='Delhi'
```

3. Please follow instructions given below.

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.

Display the records sorted in ascending order based on customer number and then by account number.

```
SELECT am.customer_number, firstname, account_number
FROM customer_master cm INNER JOIN account_master am
ON cm.customer_number=am.customer_number
WHERE extract(day from account_opening_date)>15
ORDER BY am.customer_number, account_number
```

4. Please follow instructions given below.

Write a query to display customer number, customer's first name, account number where the account status is terminated.

Display the records sorted in ascending order based on customer number and then by account number.

```
SELECT am.customer_number,firstname, account_number
FROM customer_master cm INNER JOIN account_master am
ON cm.customer_number=am.customer_number
WHERE account_status='Terminated'
ORDER BY am.customer_number, account_number
```

5. Please follow instructions given below.

Write a query to display the total number of withdrawals and total number of deposits being done by customer whose customer number ends with 001. The query should display transaction type and the number of transactions. Give an alias name as Trans\_Count for number of transactions.

Display the records sorted in ascending order based on transaction type.

```
SELECT transaction_type,count(transaction_number) Trans_Count
FROM account_master am INNER JOIN transaction_details td
ON am.account_number=td.account_number
```

WHERE customer\_number like '%001'

GROUP BY transaction\_type

ORDER BY transaction\_type

6. Please follow instructions given below.

Write a query to display the number of customers who have registration but no account in the bank.

Give the alias name as Count\_Customer for number of customers.

SELECT count(customer\_number) Count\_Customer

FROM customer\_master

WHERE customer\_number NOT IN (SELECT customer\_number FROM account\_master)

7. Please follow instructions given below.

Write a query to display account number and total amount deposited by each account holder ( Including the opening balance ). Give the total amount deposited an alias name of Deposit\_Amount. Display the records in sorted order based on account number.

SELECT td.account\_number, opening\_balance+sum(transaction\_amount) Deposit\_Amount

FROM account\_master am INNER JOIN transaction\_details td

ON am.account\_number=td.account\_number

WHERE transaction\_type='deposit'

GROUP BY account\_number

ORDER BY account\_number

8. Please follow instructions given below.

Write a query to display the number of accounts opened in each city .The Query should display Branch City and number of accounts as No\_of\_Accounts.For the branch city where we don't have any accounts opened display 0. Display the records in sorted order based on branch city.

```
select branch_master.branch_city, count(account_master.account_number) as No_of_Accounts from  
branch_master left join account_master on account_master.branch_id=branch_master.branch_id  
  
group by branch_master.branch_city order by branch_city;
```

9.Please follow instructions given below.

Write a query to display the firstname of the customers who have more than 1 account. Display the records in sorted order based on firstname.

```
select firstname  
  
FROM customer_master cm INNER JOIN account_master am  
  
ON cm.customer_number=am.customer_number  
  
group by firstname  
  
having count(account_number)>1  
  
order by firstname;
```

10.Please follow instructions given below.

Write a query to display the customer number, customer firstname, customer lastname who has taken loan from more than 1 branch.

Display the records sorted in order based on customer number.

```
SELECT Id.customer_number, firstname, lastname  
  
FROM customer_master cm INNER JOIN loan_details Id
```

ON cm.customer\_number=ld.customer\_number

GROUP BY customer\_number

HAVING count(branch\_id)>1

ORDER BY customer\_number

11.Please follow instructions given below.

Write a query to display the customer's number, customer's firstname, customer's city and branch city where the city of the customer and city of the branch is different.

Display the records sorted in ascending order based on customer number.

```
select customer_master.customer_number, firstname, customer_city, branch_city
```

```
from account_master inner join customer_master on account_master.customer_number =  
customer_master.customer_number
```

```
inner join branch_master on account_master.branch_id = branch_master.branch_id
```

```
where customer_city != branch_city order by customer_master.customer_number;
```

12.Please follow instructions given below.

Write a query to display the number of clients who have asked for loans but they don't have any account in the bank though they are registered customers. Give the count an alias name of Count.

```
SELECT count(ld.customer_number) Count
```

```
FROM customer_master cm INNER JOIN loan_details ld
```

```
ON cm.customer_number=ld.customer_number
```

```
WHERE cm.customer_number NOT IN ( SELECT customer_number FROM account_master)
```

13. Please follow instructions given below.

Write a query to display the account number who has done the highest transaction.

For example the account A00023 has done 5 transactions i.e. suppose 3 withdrawal and 2 deposits. Whereas the account A00024 has done 3 transactions i.e. suppose 2 withdrawals and 1 deposit. So account number of A00023 should be displayed.

In case of multiple records, display the records sorted in ascending order based on account number.

```
SELECT td.account_number
FROM account_master am INNER JOIN transaction_details td
ON am.account_number=td.account_number
group by td.account_number
having count(td.transaction_number)>=ALL
(SELECT count(td.transaction_number)
FROM account_master am INNER JOIN transaction_details td
ON am.account_number=td.account_number
group by td.account_number) order by am.account_number;
```

14. Please follow instructions given below.

Write a query to show the branch name, branch city where we have the maximum customers.

For example the branch B00019 has 3 customers, B00020 has 7 and B00021 has 10. So branch id B00021 is having maximum customers. If B00021 is Koramangla branch Bangalore, Koramangla branch should be displayed along with city name Bangalore.

In case of multiple records, display the records sorted in ascending order based on branch name.

```
select branch_name, branch_city
FROM branch_master INNER JOIN account_master
ON branch_master.branch_id=account_master.branch_id
```

```
group by branch_name
having count(customer_number)>=ALL
(select count(customer_number)
FROM branch_master INNER JOIN account_master
ON branch_master.branch_id=account_master.branch_id
group by branch_name) order by branch_name;
```

15.Please follow instructions given below.

Write a query to display all those account number, deposit, withdrawal where withdrawal is more than deposit amount. Hint: Deposit should include opening balance as well.

For example A00011 account opened with Opening Balance 1000 and 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 6000 and total withdrawal amount is 10000. So withdrawal amount is more than deposited amount for account number A00011.

Display the records sorted in ascending order based on account number.

```
SELECT td.account_number,sum(CASE WHEN transaction_type='Deposit' THEN transaction_amount
END)
+(SELECT opening_balance FROM account_master am2 where
am2.account_number=am.account_number) Deposit,
sum(CASE WHEN transaction_type='Withdrawal' THEN transaction_amount END) Withdrawal
FROM account_master am INNER JOIN transaction_details td
ON am.account_number=td.account_number
GROUP BY td.account_number
HAVING Withdrawal > Deposit
ORDER BY am.account_number
```

16. Please follow instructions given below.

Write a query to show the balance amount for account number that ends with 001.

Note: Balance amount includes account opening balance also. Give alias name as Balance\_Amount.

For example A00015 is having an opening balance of 1000. A00015 has deposited 2000 on 2012-06-12 and deposited 3000 on 2012-07-13. The same account has drawn money of 500 on 2012-08-12, 500 on 2012-09-15, 1000 on 2012-12-17. So balance amount is 4000 i.e (1000 (opening balance)+2000+3000) – (500+500+1000).

```
SELECT (SUM(CASE WHEN transaction_type='Deposit'
THEN transaction_amount END)) -
(SUM(CASE WHEN transaction_type='Withdrawal'
THEN transaction_amount END))+(select opening_balance
from account_master where account_number like '%001') AS Balance_Amount
FROM transaction_details where account_number like '%001'
```

17. Please follow instructions given below.

Display the customer number, customer's first name, account number and number of transactions being made by the customers from each account. Give the alias name for number of transactions as Count\_Trans. Display the records sorted in ascending order based on customer number and then by account number.

```
SELECT cm.customer_number,firstname, am.account_number,count(transaction_number)
Count_Trans
FROM customer_master cm inner JOIN account_master am
ON cm.customer_number=am.customer_number
INNER JOIN transaction_details td
ON am.account_number=td.account_number
group by am.account_number order by cm.customer_number, am.account_number
```



18. Please follow instructions given below.

Write a query to display the customer's firstname who have multiple accounts (atleast 2 accounts). Display the records sorted in ascending order based on customer's firstname.

```
SELECT firstname  
  
FROM customer_master INNER JOIN account_master  
  
ON customer_master.customer_number=account_master.customer_number  
  
GROUP BY firstname  
  
having count(firstname)>=2 order by firstname;
```

19. Please follow instructions given below.

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 branches.

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.

```
SELECT Id.customer_number, firstname, lastname  
  
FROM customer_master cm INNER JOIN loan_details Id  
  
ON cm.customer_number=Id.customer_number  
  
group by customer_number  
  
having count(branch_id)>=2 and sum(loan_amount)>=All(select sum(loan_amount) from loan_details  
group by customer_number)
```

20.Please follow instructions given below.

Write a query to display the customer's number, customer's firstname, branch id and loan amount for people who have taken loans..

Display the records sorted in ascending order based on customer number and then by branch id and then by loan amount.

```
SELECT Id.customer_number, firstname,branch_id, loan_amount
FROM customer_master cm INNER JOIN loan_details Id
ON cm.customer_number=Id.customer_number order by cm.customer_number, branch_id,
loan_amount
```

21.Please follow instructions given below.

Write a query to display city name and count of branches in that city. Give the count of branches an alias name of Count\_Branch.

Display the records sorted in ascending order based on city name.

```
SELECT branch_city, count(branch_id) Count_Branch
FROM branch_master
GROUP BY branch_city
ORDER BY branch_city
```

22.Please follow instructions given below.

Write a query to display account id, customer's firstname, customer's lastname for the customer's whose account is Active.

Display the records sorted in ascending order based on account id /account number.

```
SELECT account_number, firstname, lastname  
  
FROM customer_master cm INNER JOIN account_master am  
  
ON cm.customer_number=am.customer_number  
  
WHERE account_status='Active'  
  
ORDER BY account_number
```

23.Please follow instructions given below.

Write a query to display customer's number, first name and middle name. For the customers who don't have middle name, display their last name as middle name. Give the alias name as Middle\_Name.

Display the records sorted in ascending order based on customer number.

```
SELECT customer_number,firstname,coalesce(middlename,lastname) Middle_Name  
  
FROM customer_master order by customer_number
```

24.Please follow instructions given below.

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

```
SELECT customer_number,firstname,customer_date_of_birth  
  
FROM customer_master order by year(customer_date_of_birth), firstname;
```

25.Please follow instructions given below.

Write a query to display the customers firstname, city and account number whose occupation are not into Business, Service or Student.

Display the records sorted in ascending order based on customer first name and then by account

number.

```
SELECT firstname, customer_city, account_number
```

```
FROM customer_master cm INNER JOIN account_master am
```

```
ON cm.customer_number=am.customer_number
```

```
WHERE occupation != 'Service' and occupation != 'Student' and occupation != 'Business' order by  
firstname, account_number
```