**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 JOIN account\_master am**

**ON cm.customer\_number=am.customer\_number**

**ORDER BY account\_number;**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| ACCOUNT\_NUMBER | CUSTOMER\_NUMBER | FIRSTNAME | LASTNAME | ACCOUNT\_OPENING\_DATE |
| A00001 | C00001 | RAMESH | SHARMA | 2012-12-15 |
| A00002 | C00002 | AVINASH | MINHA | 2012-06-12 |
| A00003 | C00003 | RAHUL | RASTOGI | 2012-05-17 |
| A00004 | C00002 | AVINASH | MINHA | 2013-01-27 |
| A00005 | C00006 | CHITRESH | BARWE | 2012-12-17 |
| A00006 | C00007 | AMIT | BORKAR | 2010-08-12 |
| A00007 | C00007 | AMIT | BORKAR | 2012-10-02 |
| A00008 | C00001 | RAMESH | SHARMA | 2009-11-09 |
| A00009 | C00003 | RAHUL | RASTOGI | 2008-11-30 |
| A00010 | C00004 | PARUL | GANDHI | 2013-03-01 |

**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'**

|  |
| --- |
| CUST\_COUNT |
| 4 |

**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 JOIN account\_master am**

**ON cm.customer\_number=am.customer\_number**

**WHERE day(account\_opening\_date)>15**

**ORDER BY am.customer\_number, account\_number**

|  |  |  |
| --- | --- | --- |
| CUSTOMER\_NUMBER | FIRSTNAMEMiddle\_Name | ACCOUNT\_NUMBER |
| C00002 | AVINASH | A00004 |
| C00003 | RAHUL | A00003 |
| C00003 | RAHUL | A00009 |
| C00006 | CHITRESH | A00005 |

**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 JOIN account\_master am**

**ON cm.customer\_number=am.customer\_number**

**WHERE account\_status='Terminated'**

**ORDER BY am.customer\_number, account\_number**

|  |  |  |
| --- | --- | --- |
| CUSTOMER\_NUMBER | FIRSTNAME | ACCOUNT\_NUMBER |
| C00001 | RAMESH | A00008 |
| C00003 | RAHUL | A00009 |

**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 JOIN transaction\_details td**

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

**WHERE customer\_number like '%001'**

**GROUP BY transaction\_type**

**ORDER BY transaction\_type**

|  |  |
| --- | --- |
| TRANSACTION\_TYPE | TRANS\_COUNT |
| DEPOSIT | 3 |
| WITHDRAWAL | 3 |

**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)**

|  |
| --- |
| COUNT\_CUSTOMER |
| 4 |

**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**

|  |  |
| --- | --- |
| ACCOUNT\_NUMBER | DEPOSIT\_AMOUNT |
| A00001 | 10000 |
| A00002 | 6000 |
| A00007 | 17000 |

**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;**

|  |  |
| --- | --- |
| BRANCH\_CITY | NO\_OF\_ACCOUNTS |
| CHENNAI | 0 |
| DELHI | 6 |
| KOLKATA | 0 |
| MUMBAI | 4 |

**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;**

|  |
| --- |
| FIRSTNAME |
| AMIT |
| AVINASH |
| RAHUL |
| RAMESH |

**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 ld.customer\_number, firstname, lastname**

**FROM customer\_master cm INNER JOIN loan\_details ld**

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

**GROUP BY customer\_number**

**HAVING count(branch\_id)>1**

**ORDER BY customer\_number**

|  |  |  |
| --- | --- | --- |
| CUSTOMER\_NUMBER | FIRSTNAME | LASTNAME |
| C00001 | RAMESH | SHARMA |
| C00002 | AVINASH | MINHA |

**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;**

|  |  |  |  |
| --- | --- | --- | --- |
| CUSTOMER\_NUMBER | FIRSTNAME | CUSTOMER\_CITY | BRANCH\_CITY |
| C00002 | AVINASH | DELHI | MUMBAI |
| C00003 | RAHUL | DELHI | MUMBAI |
| C00007 | AMIT | MUMBAI | DELHI |

**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)**

**(Or)**

**select count(customer\_number) as Count from customer\_master where customer\_number not in**

**(select customer\_number from account\_master) and customer\_number in**

**(select customer\_number from loan\_details);**

|  |
| --- |
| COUNT |
| 2 |

**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;**

|  |
| --- |
| ACCOUNT\_NUMBER |
| A00001 |

**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;**

|  |  |
| --- | --- |
| BRANCH\_NAME | BRANCH\_CITY |
| ASAF ALI ROAD | DELHI |

**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 am.account\_number,opening\_balance+sum(case when transaction\_type='Deposit' then**

**transaction\_amount end) as Deposit,sum(case when transaction\_type='withdrawal' then**

**transaction\_amount end) as Withdrawal from account\_master am join transaction\_details td**

**on am.account\_number=td.account\_number group by am.account\_number having**

**Withdrawal>Deposit;**

|  |  |  |
| --- | --- | --- |
| ACCOUNT\_NUMBER | DEPOSIT | WITHDRAWAL |
| A00001 | 10000 | 12000 |
| A00002 | 6000 | 7000 |

**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'**

|  |
| --- |
| BALANCE\_AMOUNT |
| -2000 |

**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**

|  |  |  |  |
| --- | --- | --- | --- |
| CUSTOMER\_NUMBER | FIRSTNAME | ACCOUNT\_NUMBER | COUNT\_TRANS |
| C00001 | RAMESH | A00001 | 6 |
| C00002 | AVINASH | A00002 | 3 |
| C00007 | AMIT | A00007 | 3 |

**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;**

|  |
| --- |
| FIRSTNAME |
| AMIT |
| AVINASH |
| RAHUL |
| RAMESH |

**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 ld.customer\_number, firstname, lastname**

**FROM customer\_master cm INNER JOIN loan\_details ld**

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

|  |  |  |
| --- | --- | --- |
| CUSTOMER\_NUMBER | FIRSTNAME | LASTNAME |
| C00002 | AVINASH | MINHA |

**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 ld.customer\_number, firstname,branch\_id, loan\_amount**

**FROM customer\_master cm INNER JOIN loan\_details ld**

**ON cm.customer\_number=ld.customer\_number order by cm.customer\_number, branch\_id, loan\_amount**

|  |  |  |  |
| --- | --- | --- | --- |
| CUSTOMER\_NUMBER | FIRSTNAME | BRANCH\_ID | LOAN\_AMOUNT |
| C00001 | RAMESH | B00001 | 100000 |
| C00001 | RAMESH | B00003 | 600000 |
| C00002 | AVINASH | B00001 | 600000 |
| C00002 | AVINASH | B00002 | 200000 |
| C00009 | ABHISHEK | B00008 | 400000 |
| C00010 | SHANKAR | B00009 | 500000 |

**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**

|  |  |
| --- | --- |
| BRANCH\_CITY | COUNT\_BRANCH |
| CHENNAI | 1 |
| DELHI | 4 |
| KOLKATA | 1 |
| MUMBAI | 3 |

**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**

|  |  |  |
| --- | --- | --- |
| ACCOUNT\_NUMBER | FIRSTNAME | LASTNAME |
| A00001 | RAMESH | SHARMA |
| A00002 | AVINASH | MINHA |
| A00003 | RAHUL | RASTOGI |
| A00004 | AVINASH | MINHA |
| A00005 | CHITRESH | BARWE |
| A00007 | AMIT | BORKAR |
| A00010 | PARUL | GANDHI |

**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**

|  |  |  |
| --- | --- | --- |
| CUSTOMER\_NUMBER | FIRSTNAME | MIDDLE\_NAME |
| C00001 | RAMESH | CHANDRA |
| C00002 | AVINASH | SUNDER |
| C00003 | RAHUL | RASTOGI |
| C00004 | PARUL | GANDHI |
| C00005 | NAVEEN | CHANDRA |
| C00006 | CHITRESH | BARWE |
| C00007 | AMIT | KUMAR |
| C00008 | NISHA | DAMLE |
| C00009 | ABHISHEK | DUTTA |
| C00010 | SHANKAR | NAIR |

**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;**

|  |  |  |
| --- | --- | --- |
| CUSTOMER\_NUMBER | FIRSTNAME | CUSTOMER\_DATE\_OF\_BIRTH |
| C00009 | ABHISHEK | 1973-05-22 |
| C00002 | AVINASH | 1974-10-16 |
| C00008 | NISHA | 1975-12-03 |
| C00005 | NAVEEN | 1976-09-19 |
| C00004 | PARUL | 1976-11-03 |
| C00001 | RAMESH | 1976-12-06 |
| C00010 | SHANKAR | 1976-07-12 |
| C00007 | AMIT | 1981-09-06 |
| C00003 | RAHUL | 1981-09-26 |
| C00006 | CHITRESH | 1992-11-06 |

**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**

|  |  |  |
| --- | --- | --- |
| FIRSTNAME | CUSTOMER\_CITY | ACCOUNT\_NUMBER |
| PARUL | DELHI | A00010 |