<u>Project name</u> :- Banking Management System

Group id - 24

Name: Darshi Desai
 Id: 202112113
Name: Jeemi Thakkar
 Id: 202112042
Name: Devam Panchasara
Id: 202112092
Name: Nisha Shah
Id: 202112125
Name: Sanjana Shah
Id: 202112033

TA: Jigar (202111011)

1 – count the total number of customers in the bank

=> SELECT COUNT(CUSTOMER_ID) FROM CUSTOMER

Data Output	Explain	Messages	Notifications

	count 🔒 bigint
1	10

2- Find the sum of transaction where TRANSACTION_DATE='2018-12-20'

SUM(TRANSACTION_AMOUNT),COUNT(TRANSACTION_AMOUNT) FROM TRANSACTIONS WHERE TRANSACTION_DATE='2018-12-20'

Data Output	Explain	Messages	Notifications

	sum 🔒 double precision	count 🔒 bigint
1	10000	2

3 – Display the list of customers of customers who opened their accounts in between 2020-21.

=> SELECT * FROM customer AS C JOIN ACCOUNT_DETAILS AS A ON(C.CUSTOMER_ID=A.CUSTOMER_ID) where extract (YEAR from DATE_OPENED) between 2020 and 2021;

	account_no bigint	customer_firstname character varying (255)	customer_middlename character varying (255)	customer_lastname character varying (255)	date_opened date	account_status character varying (255)	aadhar_card_number bigint	account_type character varying (255)
1	5600012574	Akshay	Haresh	Patel	2020-05-08	Active	134625879021	Fixed
2	5600012220	Aangi	Kamlesh	Shah	2020-10-19	Active	311475680000	Current
3	5600012351	Devam	Nalin	Panchasara	2020-05-17	Active	321465879021	Fixed
4	5600012111	Sanjana	Mahesh	shah	2020-12-01	Active	123455579021	Current
5	5600012351	Devam	Nalin	Panchasara	2020-04-10	Active	123456789012	Savings
6	5600012111	Sanjana	Mahesh	shah	2021-12-20	Active	132465978102	Savings

4 – Display the list of customers who have debit card.

=>SELECT ACCOUNT_NO,CUSTOMER_FIRSTNAME,CUSTOMER_MIDDLENAME,CUSTOMER_LASTNAME FROM CUSTOMER AS C JOIN CARDS AS CD ON(C.CUSTOMER_ID=CD.CUSTOMER_ID) WHERE CARD_TYPE='Debit'

	account_no bigint	customer_firstname character varying (255)	customer_middlename character varying (255)	customer_lastname character varying (255)
1	5600012549	Anish	Vipul	shah
2	5600012351	Devam	Nalin	Panchasara
3	5600012414	Jeemi	Anil	Thakkar

5 – Display the list of customers who used their credit card in September 2021.

=>SELECT * FROM TRANSACTIONS AS T JOIN ACCOUNT_DETAILS AS A ON(T.ACCOUNT_ID=A.ACCOUNT_ID) JOIN CUSTOMER AS C ON (C.CUSTOMER_ID=A.CUSTOMER_ID) WHERE extract (YEAR from TRANSACTION_DATE)=2021 AND extract (MONTH from TRANSACTION_DATE)=09 AND TRANSACTION_TYPE='CREDIT'

6 – Retrieve the customer details who has an account more than one branch.

=>SELECT C.CUSTOMER_ID,ACCOUNT_NO,CUSTOMER_FIRSTNAME,CUSTOMER_MIDDLENAME,CUSTOMER_LASTNAME,EMAIL,C.PHONE_NO FROM CUSTOMER AS C JOIN ACCOUNT_DETAILS AS A ON(C.CUSTOMER_ID=A.CUSTOMER_ID) JOIN BRANCH AS B ON(A.BRANCH_ID=B.BRANCH_ID) GROUP BY C.CUSTOMER_ID HAVING COUNT(DISTINCT A.BRANCH_ID)>1 ;

	customer_id [PK] integer	account_no bigint	customer_firstname character varying (255)	customer_middlename character varying (255)	customer_lastname character varying (255)	email character varying (255)	phone_no bigint
1	4	5600012351	Devam	Nalin	Panchasara	Devam12@gmail.com	4851286526
2	6	5600012111	Sanjana	Mahesh	shah	Sanjana15@gmail.com	4859681226

7 - COUNT TOTAL NO. OF ACCOUNT TYPES OF DIFF BRANCHES

=> SELECT B.BRANCH_ID,B.BRANCH_NAME,ACCOUNT_TYPE,COUNT(ACCOUNT_TYPE) FROM ACCOUNT_DETAILS AS A JOIN BRANCH AS B ON(A.BRANCH_ID=B.BRANCH_ID) GROUP BY ACCOUNT_TYPE,B.BRANCH_ID ORDER BY BRANCH_ID

	branch_id integer	branch_name character varying (255)	account_type character varying (255)	count bigint
1	1	BOB Adval	Current	2
2	1	BOB Adval	Fixed	1
3	2	BOB Ahmedabad	Current	1
4	2	BOB Ahmedabad	Fixed	1
5	2	BOB Ahmedabad	Savings	2
6	3	BOB Akhabarnagar	Fixed	1
7	3	BOB Akhabarnagar	Savings	2
8	4	BOB Ambawadi	Current	1
9	4	BOB Ambawadi	Fixed	1
10	4	BOB Ambawadi	Savings	1
11	5	BOB JIVRAJ	Current	2

8 - List the customer_id who have both savings & current account

=> select customer_id from ACCOUNT_DETAILS where ACCOUNT_TYPE='Savings' intersect select customer_id from ACCOUNT_DETAILS where ACCOUNT_TYPE='Current'

	customer_id integer
1	4
2	6

9 - FIND THE MAXIMUM COUNT OF TRANSACTION DONE BY A CUSTOMER

=> SELECT COUNT(TRANSACTION_ID) AS TOTAL_TRANSACTION,CUSTOMER_FIRSTNAME,CUSTOMER_MIDDLENAME,CUSTOMER_LASTNAME FROM TRANSACTIONS AS T JOIN ACCOUNT_DETAILS AS A ON (T.ACCOUNT_ID=A.ACCOUNT_ID) JOIN CUSTOMER AS C ON(A.CUSTOMER_ID=C.CUSTOMER_ID) GROUP BY T.ACCOUNT_ID,C.CUSTOMER_ID ORDER BY COUNT(TRANSACTION_ID) DESC LIMIT 1

	total_transaction bigint	customer_firstname character varying (255)	customer_middlename character varying (255)	customer_lastname character varying (255)
1	3	Nisha	Rupesh	shah

Data Output   Explain   Messages   Notifications

10 - FIND THE MAXIMUM COUNT OF TRANSACTION DONE BY A CUSTOMER USING CHEQUE

=> SELECT COUNT(TRANSACTION_ID),CUSTOMER_FIRSTNAME,CUSTOMER_MIDDLENAME,CUSTOMER_LASTNAME FROM TRANSACTIONS AS T JOIN ACCOUNT_DETAILS AS A ON (T.ACCOUNT_ID=A.ACCOUNT_ID) JOIN CUSTOMER AS C ON(A.CUSTOMER_ID=C.CUSTOMER_ID) WHERE TRANSACTION_TYPE='CHEQUE' GROUP BY T.ACCOUNT_ID,C.CUSTOMER_ID ORDER BY MAX(TRANSACTION_ID) DESC

Data Output **Explain** Messages Notifications

	count bigint	customer_firstname character varying (255)	customer_middlename character varying (255)	customer_lastname character varying (255)
1	2	Nisha	Rupesh	shah
2	1	Jeemi	Anil	Thakkar

11- Write a query to display the customer's id,customer's firstname, account id and duration for people who have taken loans.

=> SELECT customer.customer_id, customer_firstname,account_details.account_id, loan.duration

FROM ((loan

INNER JOIN customer ON loan.customer_id=customer.customer_id)

INNER JOIN account_details ON loan.account_id=account_details.account_id);

Data Output **Explain** Messages Notifications

	customer_id integer	customer_firstname character varying (255)	account_id bigint	duration character varying (255)
1	1	Anish	3	3 Years
2	2	Darshi	7	5 Years
3	3	Nisha	3	2 Years
4	5	Jeemi	14	1 Years
5	8	Akshay	7	10 Years

12- Write a query to display the customer id, firstname, account_opened_date. Display in sorted order of date of account opened and within that sort by firstname.

=> SELECT C.CUSTOMER_ID,C.CUSTOMER_FIRSTNAME,A.date_opened FROM Customer AS C JOIN ACCOUNT_DETAILS AS A ON(C.CUSTOMER_ID=A.CUSTOMER_ID)

ORDER BY EXTRACT(year FROM date_opened), c.customer_firstname ASC;

Data Output   Explain   Messages   Notifications

	customer_id integer	customer_firstname character varying (255)	date_opened date
1	4	Devam	2014-06-15
2	7	Drishti	2014-03-20
3	3	Nisha	2014-03-20
4	2	Darshi	2016-09-02
5	4	Devam	2016-02-21
6	10	Aesha	2018-10-20
7	1	Anish	2018-12-20
8	5	Jeemi	2018-10-19
9	6	Sanjana	2018-11-01
10	9	Aangi	2020-10-19
11	8	Akshay	2020-05-08
12	4	Devam	2020-05-17
13	4	Devam	2020-04-10
14	6	Sanjana	2020-12-01
15	6	Sanjana	2021-12-20

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

=> SELECT account_details.customer_id,
customer.customer_firstname,
account_details.aadhar_card_number,account_details.date_opened

FROM account_details,customer

WHERE account_details.customer_id = customer.customer_id

AND EXTRACT (day FROM date_opened)>15;

Data Output   **Explain**   Messages   Notifications

	customer_id integer	customer_firstname character varying (255)	aadhar_card_number bigint	date_opened date
1	1	Anish	123456789012	2018-12-20
2	3	Nisha	321456879021	2014-03-20
3	5	Jeemi	311475680921	2018-10-19
4	7	Drishti	321456666021	2014-03-20
5	9	Aangi	311475680000	2020-10-19
6	10	Aesha	311465780921	2018-10-20
7	4	Devam	321465879021	2016-02-21
8	4	Devam	321465879021	2020-05-17
9	6	Sanjana	132465978102	2021-12-20

14 - write a query to dispplay the customer name who has highest balance

=> SELECT * FROM ACCOUNT_DETAILS GROUP BY ACCOUNT_ID HAVING AVL_BALANCE=(SELECT MAX(AVL_BALANCE) FROM ACCOUNT_DETAILS);

Data Output   Explain   Messages   Notifications

	account_id [PK] bigint	date_opened date	account_status character varying (255)	aadhar_card_number bigint	avl_balance bigint	account_type character varying (255)	customer_id integer	branch_id integer
1	15	2021-12-20	Active	132465978102	10000	Savings	6	3

15 - FIND SUM OF TOTAL TOTAL_TRANSACTION_AMOUNT WHERE TRANSACTION MONTH 12/2021 AND 01/2021

=> SELECT SUM(TRANSACTION_AMOUNT) AS tOTAL_TRANSACTION_AMOUNT FROM TRANSACTIONS WHERE EXTRACT(YEAR FROM TRANSACTION_DATE)=2021 AND (EXTRACT(MONTH FROM TRANSACTION_DATE)=12 OR EXTRACT(MONTH FROM TRANSACTION_DATE)=01)

| Data Output | Explain | Messages | Notifications |

	total_transaction_amount 🔒 double precision
1	6700

16 - DISPLAY THE BRANCH_DETAILS WHO GIVES MAXIMUM LOANS

=> SELECT A.BRANCH_ID,B.BRANCH_NAME,B.ADDRESS,B.PHONE_NO, B.IFSC_CODE FROM LOAN AS L JOIN ACCOUNT_DETAILS AS A ON(L.ACCOUNT_ID=A.ACCOUNT_ID) JOIN BRANCH AS B ON(A.BRANCH_ID=B.BRANCH_ID) GROUP BY A.BRANCH_ID,B.BRANCH_NAME,B.ADDRESS,B.PHONE_NO, B.IFSC_CODE ORDER BY COUNT(A.BRANCH_ID) DESC LIMIT 1

| Data Output | Explain | Messages | Notifications |

	branch_id integer	branch_name character varying (255)	address character varying (255)	phone_no bigint	ifsc_code character varying (255)
1	2	BOB Ahmedabad	Post Box 101, Fuvara, Gandhi Road, Ahmedabad - 380001	4859685411	BARB0GANAHM