

DAY 3

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DATE: 09-07-2025

Tasks:

1. Add primary key constraint to customer_id in customer table.
2. Add primary key constraint to account_number in account table.
3. Add foreign key constraint to customer_number in account table which refers customer_id of customer table.
4. Write a query to display the number of customer's from Chennai. Give the count an alias name of Cust_Count.
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.
6. 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.
7. Create table transaction_details with columns
transaction_number VARCHAR(6)
account_number VARCHAR(6)
date_of_transaction DATE
medium_of_transaction VARCHAR(20)
transaction_type VARCHAR(20)
transaction_amount double
8. Add foreign key constraint to account_number in transaction table which refers account_number of account table.
9. Insert rows in transaction table
10. 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.

Solution:

1.Query:

```
alter table customer add primary key(customer_id);
```

```
desc customer;
```

Output:

Result Grid

Filter Rows:

Export:

Wrap Cell Content:

	Field	Type	Null	Key	Default	Extra
▶	customer_id	varchar(20)	NO	PRI	NULL	
	firstname	varchar(30)	YES		NULL	
	customer_city	varchar(15)	YES		NULL	
	customer_contact_no	varchar(10)	YES		NULL	
	occupation	varchar(10)	YES		NULL	
	customer_date_of_birth	date	YES		NULL	
	lastname	varchar(20)	YES		NULL	


2.Query:


```
alter table account add primary key(account_number);
```


```
desc account;
```

Output:

Result Grid


Filter Rows:

Export:


Wrap Cell Content:





	Field	Type	Null	Key	Default	Extra
▶	account_number	varchar(20)	NO	PRI	NULL	
	customer_number	varchar(20)	YES		NULL	
	branch_id	varchar(10)	YES		NULL	
	opening_balance	double	YES		NULL	
	account_opening_date	date	YES		NULL	
	account_type	varchar(10)	YES		NULL	
	account_status	varchar(10)	YES		NULL	

3.Query:

alter table account add constraint pk foreign key(customer_number)
references customer(customer_id) on delete set null;

desc account;

Output:

Result Grid		 Filter Rows: <input type="text"/>	Export: 	Wrap Cell Content: 		
	Field	Type	Null	Key	Default	Extra
▶	account_number	varchar(20)	NO	PRI	NULL	
	customer_number	varchar(20)	YES	MUL	NULL	
	branch_id	varchar(10)	YES		NULL	
	opening_balance	double	YES		NULL	
	account_opening_date	date	YES		NULL	
	account_type	varchar(10)	YES		NULL	
	account_status	varchar(10)	YES		NULL	

4.Query:

select customer_city from customer;

select count(customer_id) Cust_Count from customer where customer_city = 'Chennai';

Output:

Result Grid	Filter Rows:	Export:	Wrap Cell Content:
customer_city			
Erode			
Chennai			
Coimbatore			
Madurai			
Chennai			
Coimbatore			
Coimbatore			
Salem			

Result Grid	Filter Rows:	Export:	Wrap Cell Content:
Cust_Count			
2			

5.Query:

select account_opening_date from account;

select customer_number, firstname, account_number from customer join account on
customer.customer_id = account.customer_number where day(account_opening_date) > 15;

Output:

Result Grid	Filter Rows:	Export:	Wrap Cell Content:
account_opening_date			
2020-01-15			
2019-06-10			
2021-11-05			
2022-08-25			
2023-01-15			
2020-06-30			

Result Grid	Filter Rows:	Export:	Wrap Cell Content:
customer_number	firstname	account_number	
104	Nisha	A1004	
106	Laya	A1006	

6.Query:

select count(customer_id) Count_Customer from customer where customer_id not in (select
customer_number from account);

Output:

Result Grid	Filter Rows:	Export:	Wrap Cell Content:
Count_Customer			
2			


7.Query:


```
create table transaction_details(transaction_number varchar(6), account_number varchar(6),  
date_of_transaction date, medium_of_transaction varchar(20), transaction_type varchar(20),  
transaction_amount double);
```


```
desc transaction_details;
```

Output:

Result Grid


Filter Rows:

Export:


Wrap Cell Content:


	Field	Type	Null	Key	Default	Extra
▶	transaction_number	varchar(6)	YES		NULL	
	account_number	varchar(6)	YES		NULL	
	date_of_transaction	date	YES		NULL	
	medium_of_transaction	varchar(20)	YES		NULL	
	transaction_type	varchar(20)	YES		NULL	
	transaction amount	double	YES		NULL	


8.Query:


```
alter table transaction_details add constraint pk_trans foreign key(account_number)  
references account(account_number) on delete set null;
```


```
desc transaction_details;
```

Output:

Result Grid


Filter Rows:

Export:


Wrap Cell Content:


	Field	Type	Null	Key	Default	Extra
▶	transaction_number	varchar(6)	YES		NULL	
	account_number	varchar(6)	YES	MUL	NULL	
	date_of_transaction	date	YES		NULL	
	medium_of_transaction	varchar(20)	YES		NULL	
	transaction_type	varchar(20)	YES		NULL	
	transaction amount	double	YES		NULL	

9.Query:

```
insert into transaction_details values('T10001', 'A1005', '2023-07-01', 'ATM', 'Withdrawal',
2000.00),
('T10002', 'A1001', '2023-07-05', 'Net Banking', 'Deposit', 5000.00),
('T10003', 'A1001', '2023-07-10', 'Mobile App', 'Withdrawal', 1500.00),
('T10004', 'A1002', '2023-07-12', 'Cheque', 'Deposit', 7000.00),
('T10005', 'A1006', '2023-07-15', 'Branch', 'Withdrawal', 1100.00),
('T10006', 'A1001', '2023-07-22', 'Mobile App', 'Withdrawal', 2200.00);
```

```
select * from transaction_details;
```

Output:

Result Grid

Filter Rows:

Export:

Wrap Cell Content:

	transaction_number	account_number	date_of_transaction	medium_of_transaction	transaction_type	transaction_amount
▶	T10001	A1005	2023-07-01	ATM	Withdrawal	2000
	T10002	A1001	2023-07-05	Net Banking	Deposit	5000
	T10003	A1001	2023-07-10	Mobile App	Withdrawal	1500
	T10004	A1002	2023-07-12	Cheque	Deposit	7000
	T10005	A1006	2023-07-15	Branch	Withdrawal	1100
	T10006	A1001	2023-07-22	Mobile App	Withdrawal	2200

10.Query:

```
Select t.transaction_type,count(*) Trans_Count
from transaction_details t
join account a on t.account_number = a.account_number
where a.customer_number like '%01'
group by t.transaction_type
order by t.transaction_type asc;
```

Output:

Result Grid

Filter Rows:

Export:

Wrap Cell Content:

	transaction_type	Trans_Count
▶	Deposit	1
	Withdrawal	2