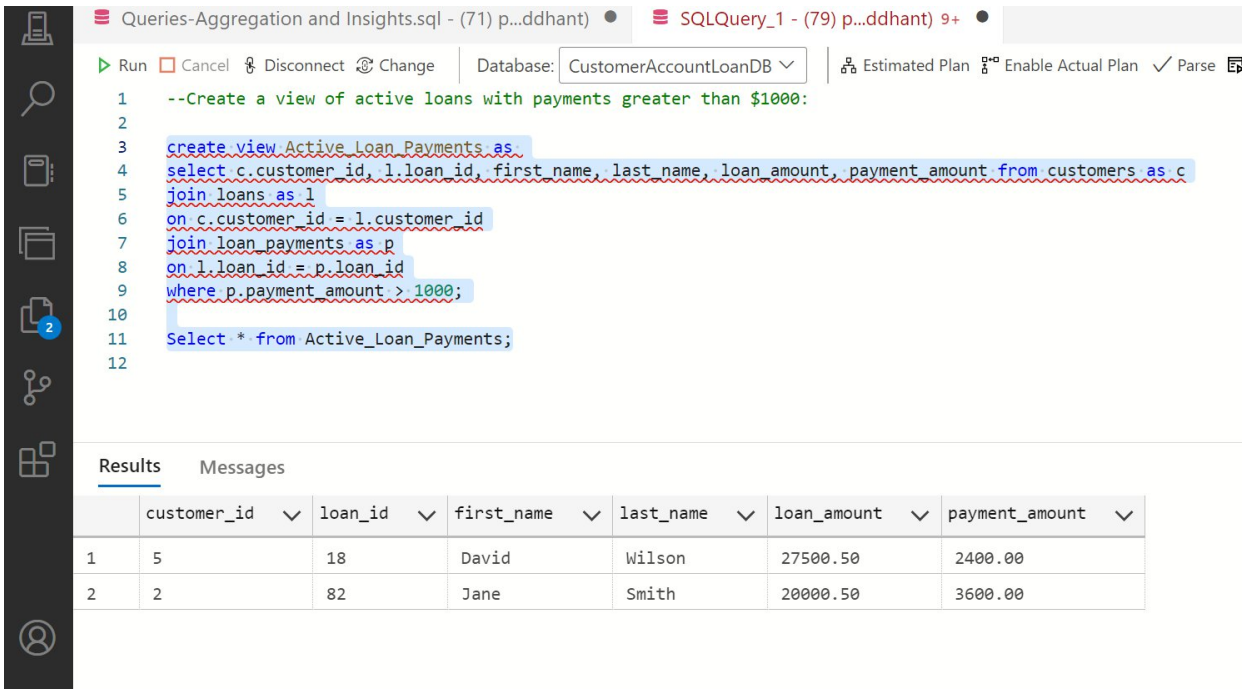
6. Advanced Analysis:

1. Create a view of active loans with payments greater than $1000:

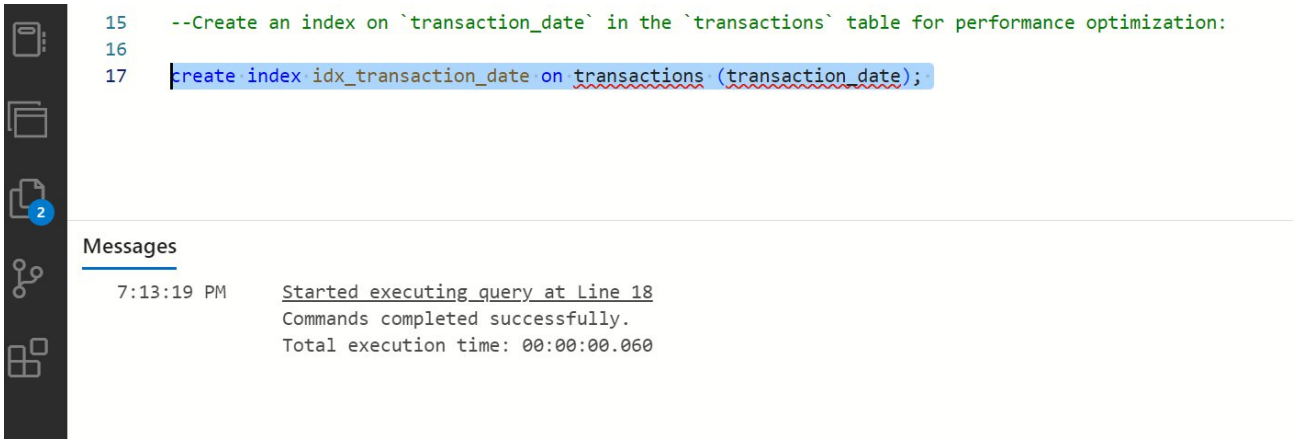
```
create view Active_Loan_Payments as
select c.customer_id, l.loan_id, first_name, last_name, loan_amount, payment_amount from customers as c
join loans as l
on c.customer_id = l.customer_id
join loan_payments as p
on l.loan_id = p.loan_id
where p.payment_amount > 1000;

Select * from Active_Loan_Payments;
```



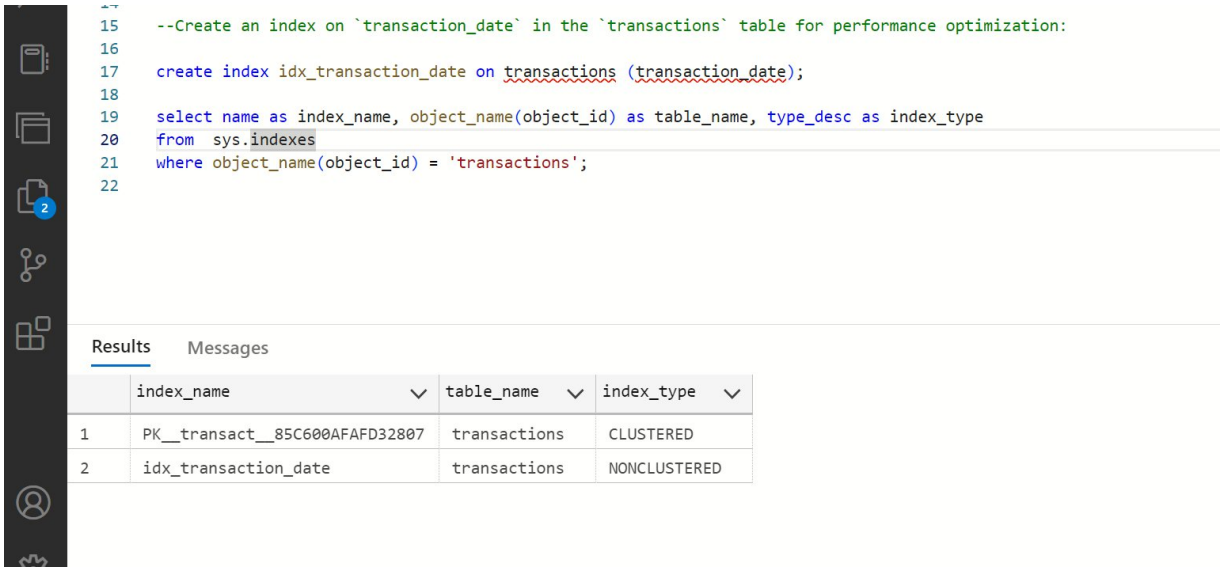
2. Create an index on `transaction_date` in the `transactions` table for performance optimization:

```
create index idx_transaction_date on transactions (transaction_date);
```



check for the indexes on your transactions table:-

```
select name as index_name, object_name(object_id) as table_name, type_desc as index_type
from  sys.indexes
where object_name(object_id) = 'transactions';
```



```
--Create an index on `transaction_date` in the `transactions` table for performance optimization:

create index idx_transaction_date on transactions (transaction_date);

select name as index_name, object_name(object_id) as table_name, type_desc as index_type
from  sys.indexes
where object_name(object_id) = 'transactions';
```

Results | Messages

	index_name	table_name	index_type
1	PK__transact__85C600AFAFD32807	transactions	CLUSTERED
2	idx_transaction_date	transactions	NONCLUSTERED