

Assumed Insurance Schema (for reference)

- **Customer**(CustomerID, CustomerName, DOB, CreatedDate)
- **Policy**(PolicyID, CustomerID, PolicyType, StartDate, EndDate, PremiumAmount)
- **Claim**(ClaimID, PolicyID, ClaimDate, ClaimAmount, ClaimStatus)
- **Payment**(PaymentID, PolicyID, PaymentDate, Amount)
- **Agent**(AgentID, AgentName, JoinDate)

(SQL Server syntax)

GETDATE(), CURRENT_TIMESTAMP

1. Display current system date and time

```
SELECT GETDATE() AS CurrentDateTime;
```

2. Show all policies created today

```
SELECT *
```

```
FROM Policy
```

```
WHERE CAST(StartDate AS DATE) = CAST(GETDATE() AS DATE);
```

DATEPART()

3. Get policies started in the current year

```
SELECT *
```

```
FROM Policy
```

```
WHERE DATEPART(YEAR, StartDate) = DATEPART(YEAR, GETDATE());
```

4. List claims raised in the month of March

```
SELECT *
```

```
FROM Claim
```

```
WHERE DATEPART(MONTH, ClaimDate) = 3;
```

5. Count payments done on Sundays

```
SELECT COUNT(*) AS SundayPayments
```

```
FROM Payment
```

```
WHERE DATEPART(WEEKDAY, PaymentDate) = 1;
```

YEAR(), MONTH(), DAY()

6. List customers born in 1990

```
SELECT *
FROM Customer
WHERE YEAR(DOB) = 1990;
```

7. Show policies ending in December

```
SELECT *
FROM Policy
WHERE MONTH(EndDate) = 12;

8. Claims raised on the 15th day of any month
```

```
SELECT *
FROM Claim
WHERE DAY(ClaimDate) = 15;
```

DATEDIFF()

9. Find policy duration in days

```
SELECT PolicyID,
       DATEDIFF(DAY, StartDate, EndDate) AS PolicyDurationDays
FROM Policy;
```

10. Find claims filed within 30 days of policy start

```
SELECT c.*
FROM Claim c
JOIN Policy p ON c.PolicyID = p.PolicyID
WHERE DATEDIFF(DAY, p.StartDate, c.ClaimDate) <= 30;
```

11. Customers older than 40 years

```
SELECT *
FROM Customer
WHERE DATEDIFF(YEAR, DOB, GETDATE()) > 40;
```

DATEADD()

12. Show policy expiry date after adding 1 year

```
SELECT PolicyID,
```

```
DATEADD(YEAR, 1, StartDate) AS NewExpiryDate  
FROM Policy;  
  
13. Payments expected 10 days after payment date  
  
SELECT PaymentID,  
      DATEADD(DAY, 10, PaymentDate) AS ExpectedSettlementDate  
FROM Payment;
```

EOMONTH()

```
14. Get last date of policy start month  
  
SELECT PolicyID,  
      EOMONTH(StartDate) AS MonthEndDate  
FROM Policy;  
  
15. Policies ending in the current month  
  
SELECT *  
FROM Policy  
WHERE EndDate <= EOMONTH(GETDATE());
```

FORMAT()

```
16. Display claim date in dd-MM-yyyy format  
  
SELECT ClaimID,  
      FORMAT(ClaimDate, 'dd-MM-yyyy') AS ClaimDateFormatted  
FROM Claim;  
  
17. Display payment date as MMM yyyy  
  
SELECT PaymentID,  
      FORMAT(PaymentDate, 'MMM yyyy') AS PaymentMonth  
FROM Payment;
```

CAST() and CONVERT()

```
18. Convert datetime to date  
  
SELECT CAST(ClaimDate AS DATE) AS ClaimDateOnly  
FROM Claim;
```

19. Convert date to varchar format

```
SELECT CONVERT(VARCHAR(10), StartDate, 103) AS StartDate_DDMMYYYY  
FROM Policy;
```

ISDATE()

20. Validate date values

```
SELECT ISDATE('2025-02-29') AS IsValidDate;
```

DATENAME()

21. Display weekday name of payment date

```
SELECT PaymentID,  
       DATENAME(WEEKDAY, PaymentDate) AS PaymentDay  
FROM Payment;
```

22. Display month name of claim date

```
SELECT ClaimID,  
       DATENAME(MONTH, ClaimDate) AS ClaimMonth  
FROM Claim;
```

SYSDATETIME(), GETUTCDATE()

23. Show system datetime with precision

```
SELECT SYSDATETIME() AS SystemDateTime;
```

24. Show UTC date and time

```
SELECT GETUTCDATE() AS UTCTime;
```

Advanced / Scenario-based

25. Policies active today

```
SELECT *  
FROM Policy  
WHERE GETDATE() BETWEEN StartDate AND EndDate;
```

26. Claims raised in the last 6 months

```
SELECT *
```

FROM Claim

WHERE ClaimDate >= DATEADD(MONTH, -6, GETDATE());

27. Payments made in the previous month

SELECT *

FROM Payment

WHERE PaymentDate >= DATEADD(MONTH, DATEDIFF(MONTH, 0, GETDATE()) - 1, 0)

AND PaymentDate < DATEADD(MONTH, DATEDIFF(MONTH, 0, GETDATE()), 0);

28. Agents joined in the last 2 years

SELECT *

FROM Agent

WHERE JoinDate >= DATEADD(YEAR, -2, GETDATE());

29. Find age of customers

SELECT CustomerName,

DATEDIFF(YEAR, DOB, GETDATE()) AS Age

FROM Customer;

30. Claims raised on weekends

SELECT *

FROM Claim

WHERE DATENAME(WEEKDAY, ClaimDate) IN ('Saturday', 'Sunday');