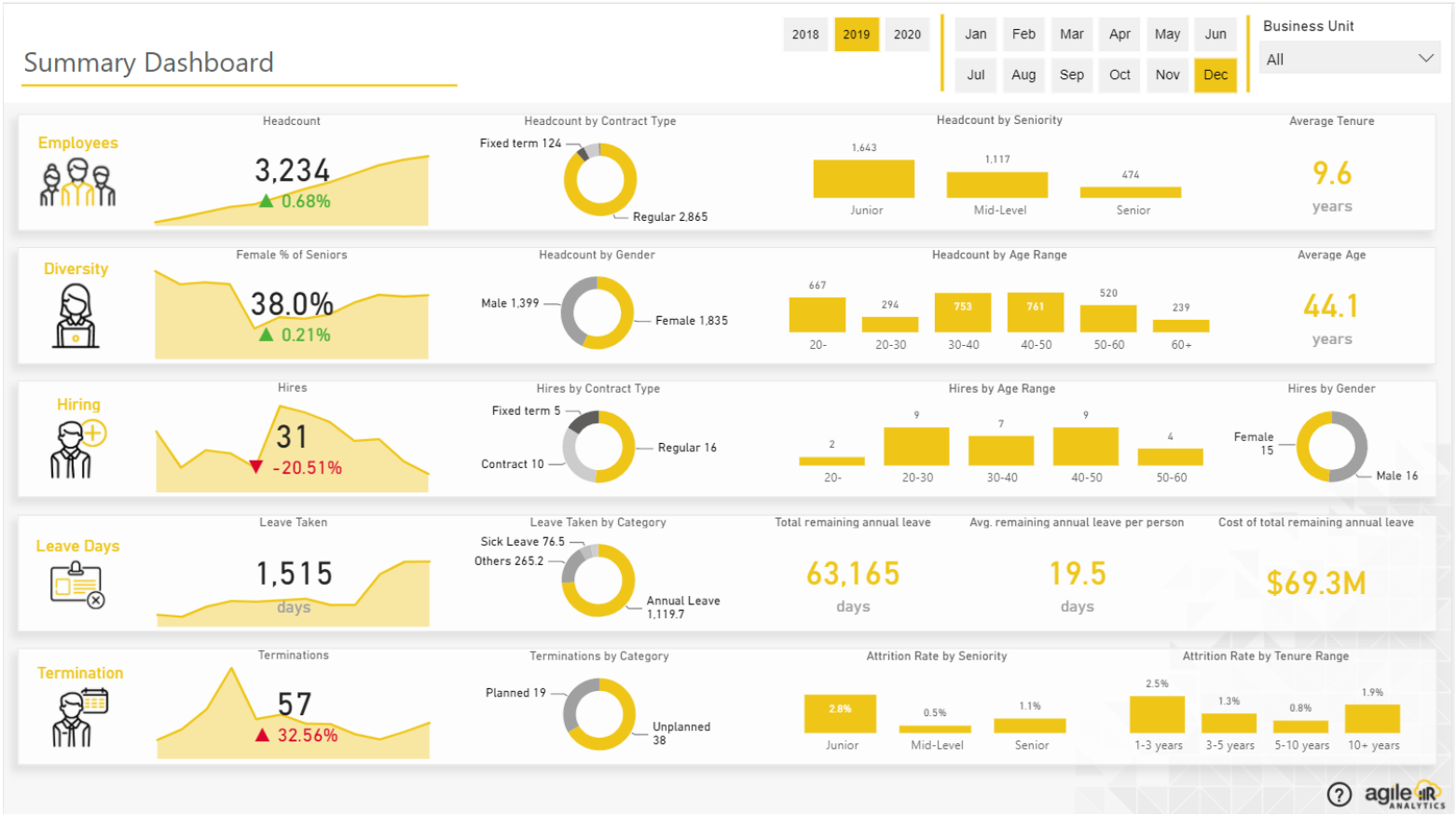
MENTORSHIP

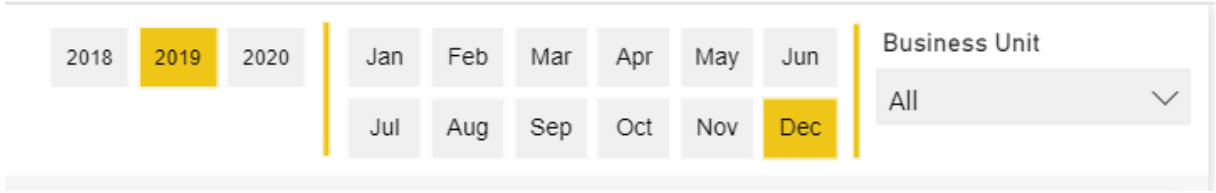
EXAM 2 DATABASE

1. TOPIC
2. DATABASE
3. QUERY

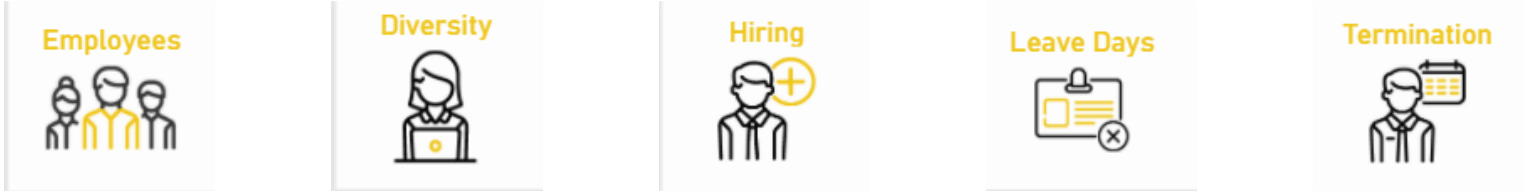
1. TOPIC


Summary Dashboard
2018
2019
2020
Jan
Feb
Mar
Apr
May
Jun
Jul
Aug
Sep
Oct
Nov
Dec
Business Unit
All
Employees
Headcount
3,234
0.68%
Headcount by Contract Type
Fixed term 124
Regular 2,865
Headcount by Seniority
1,643
Junior
1,117
Mid-Level
474
Senior
Average Tenure
9.6
years
Diversity
Female % of Seniors
38.0%
0.21%
Headcount by Gender
Male 1,399
Female 1,835
Headcount by Age Range
667
20-
294
20-30
753
30-40
761
40-50
520
50-60
239
60+
Average Age
44.1
years
Hiring
Hires
31
-20.51%
Hires by Contract Type
Fixed term 5
Contract 10
Regular 16
Hires by Age Range
2
20-
9
20-30
7
30-40
9
40-50
4
50-60
Hires by Gender
Female 15
Male 16
Leave Days
Leave Taken
1,515
days
Leave Taken by Category
Sick Leave 76.5
Others 265.2
Annual Leave 1,119.7
Total remaining annual leave
63,165
days
Avg. remaining annual leave per person
19.5
days
Cost of total remaining annual leave
$69.3M
Termination
Terminations
57
32.56%
Terminations by Category
Planned 19
Unplanned 38
Attrition Rate by Seniority
2.8%
Junior
0.5%
Mid-Level
1.1%
Senior
Attrition Rate by Tenure Range
2.5%
1-3 years
1.3%
3-5 years
0.8%
5-10 years
1.9%
10+ years
agile HR ANALYTICS

1. TOPIC

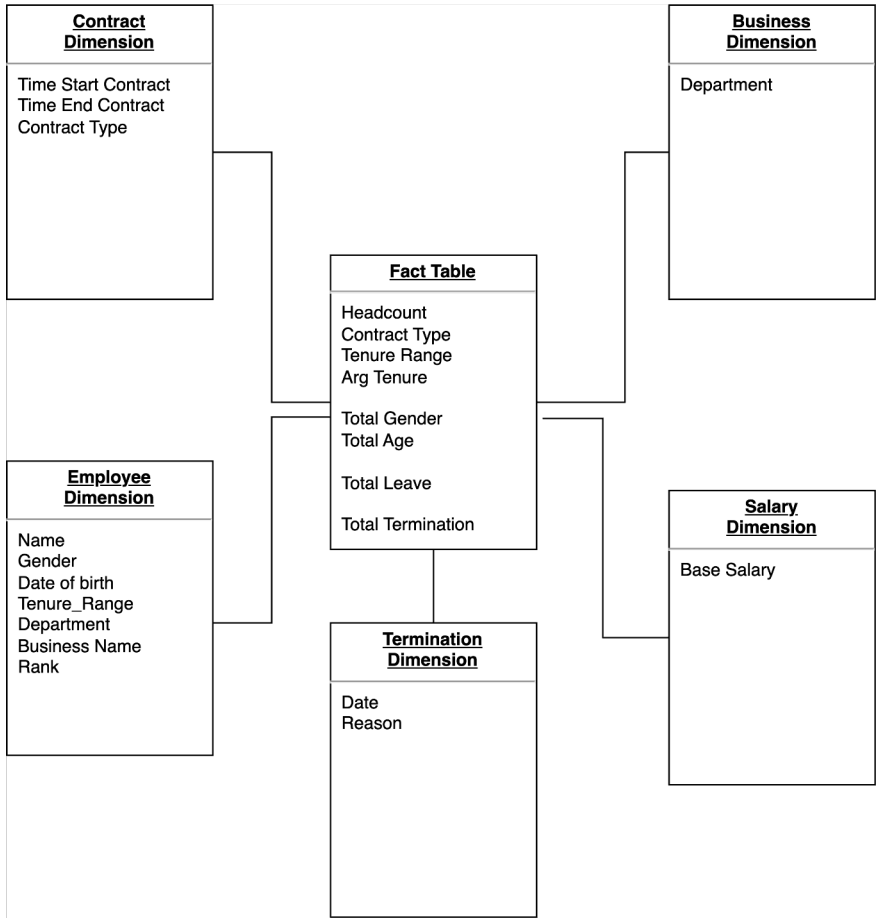


- There are active year, month, and business filters applied across the entire query.

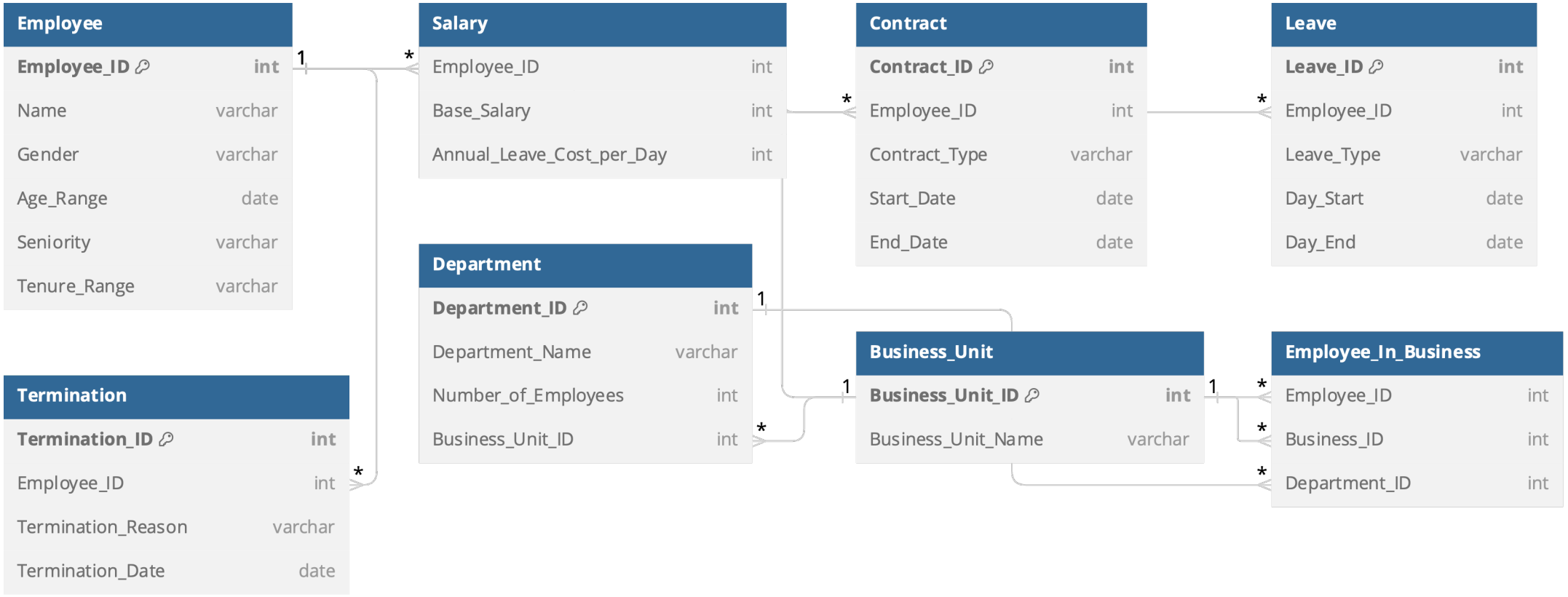


- Main items on the page.

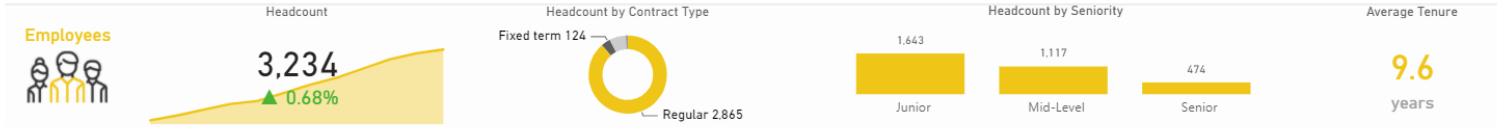
2. DATABASE


Contract Dimension
Time Start Contract
Time End Contract
Contract Type
Business Dimension
Department
Fact Table
Headcount
Contract Type
Tenure Range
Arg Tenure
Total Gender
Total Age
Total Leave
Total Termination
Employee Dimension
Name
Gender
Date of birth
Tenure_Range
Department
Business Name
Rank
Salary Dimension
Base Salary
Termination Dimension
Date
Reason

2. DATABASE


Employee
Employee_ID int
Name varchar
Gender varchar
Age_Range date
Seniority varchar
Tenure_Range varchar
Salary
Employee_ID int
Base_Salary int
Annual_Leave_Cost_per_Day int
Contract
Contract_ID int
Employee_ID int
Contract_Type varchar
Start_Date date
End_Date date
Leave
Leave_ID int
Employee_ID int
Leave_Type varchar
Day_Start date
Day_End date
Department
Department_ID int
Department_Name varchar
Number_of_Employees int
Business_Unit_ID int
Business_Unit
Business_Unit_ID int
Business_Unit_Name varchar
Employee_In_Business
Employee_ID int
Business_ID int
Department_ID int
Termination
Termination_ID int
Employee_ID int
Termination_Reason varchar
Termination_Date date
1
*

3. QUERY



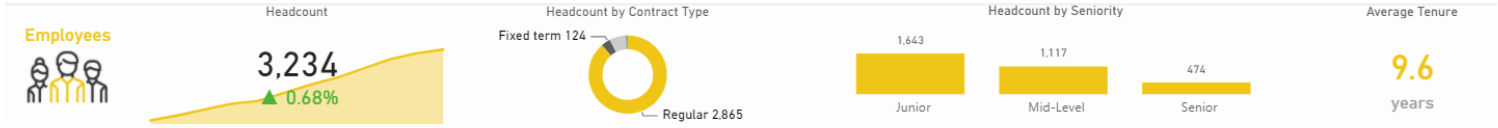
- Headcount

```
SELECT Count(e.employee_id) AS total_employees
FROM   employee e
       left join contract c
              ON e.employee_id = c.employee_id
WHERE  <Date_Filter> BETWEEN c.start_date AND
                          IF(c.end_date != null, c.end_date, Curdate())
```

- Headcount by Contract Type

```
SELECT c.contract_type,
       COUNT(e.employee_id) AS total_employees
FROM   employee e
       LEFT JOIN contract c
              ON e.employee_id = c.employee_id
WHERE   <Date_Filter> BETWEEN c.start_date AND IF(c.end_date != NULL,
                                                  c.end_date,
                                                  Curdate())
GROUP  BY c.contract_type;
```

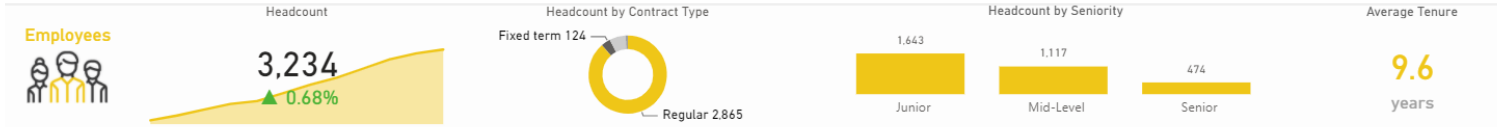
3. QUERY



- Headcout by Seniority
-

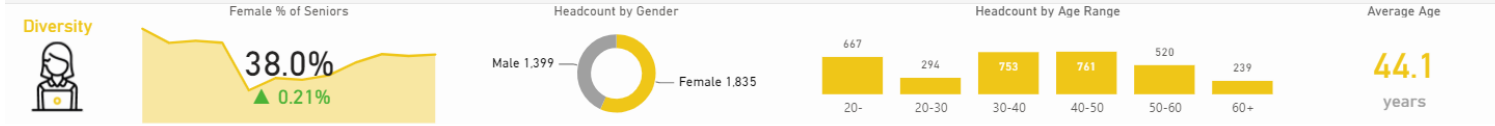
```
SELECT e.Seniority,
       COUNT(e.employee_id) AS total_employees
FROM   employee e
       LEFT JOIN contract c
              ON e.employee_id = c.employee_id
WHERE   <Date_Filter>
BETWEEN c.start_date AND IF(c.end_date != NULL,
                            c.end_date,
                            Curdate())

GROUP  BY e.Seniority;
```

3. QUERY



- Average Tenure
-
```
SELECT AVG(e.employee_id) AS total_employees
FROM   employee e
       LEFT JOIN contract c
              ON e.employee_id = c.employee_id
WHERE   <Date_Filter>
BETWEEN c.start_date AND IF(c.end_date != NULL,
                            c.end_date,
                            Curdate())
```

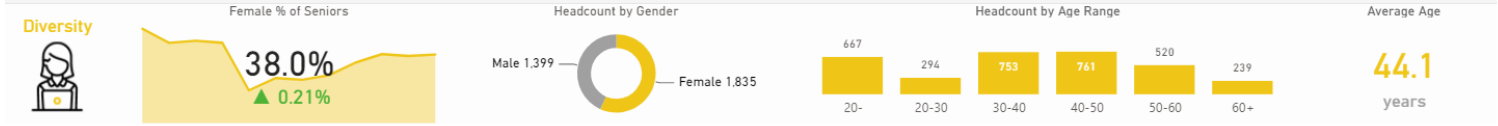
3. QUERY



- Female %

```
SELECT COUNT(e.employee_id) AS total_employees_Female
FROM   employee e
       LEFT JOIN contract c
              ON e.employee_id = c.employee_id
WHERE   <Date_Filter>
BETWEEN c.start_date AND IF(c.end_date != NULL,c.end_date,Curdat
e()) AND e.Gender = 'Female'
```

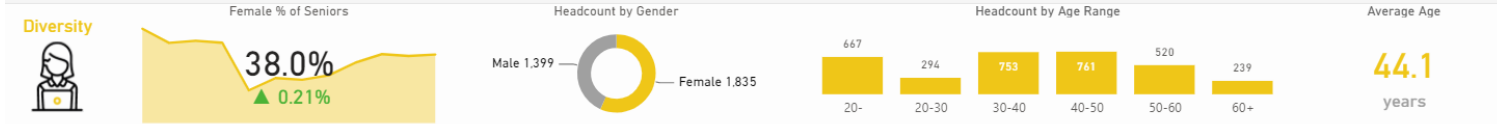
3. QUERY



- Headcount by Gender

```
SELECT e.Gender, COUNT(e.employee_id) AS total_employees_Female
FROM   employee e
       LEFT JOIN contract c
              ON e.employee_id = c.employee_id
WHERE   <Date_Filter>
BETWEEN c.start_date AND IF(c.end_date != NULL,c.end_date,Curdat
e())
GROUP BY e.Gender
```

3. QUERY



- Headcount by Age Range

```
SELECT SUM(CASE
                WHEN TIMESTAMPDIFF(YEAR, Age_Range, CURDATE()) < 20 THEN 1
                ELSE 0
            END) AS total_employees_20,
        SUM(CASE
                WHEN TIMESTAMPDIFF(YEAR, Age_Range, CURDATE()) BETWEEN 20 AND 29 THEN 1
                ELSE 0
            END) AS total_employees_20_30,
        SUM(CASE
                WHEN TIMESTAMPDIFF(YEAR, Age_Range, CURDATE()) BETWEEN 30 AND 39 THEN 1
                ELSE 0
            END) AS total_employees_30_40,
        SUM(CASE
                WHEN TIMESTAMPDIFF(YEAR, Age_Range, CURDATE()) BETWEEN 40 AND 49 THEN 1
                ELSE 0
            END) AS total_employees_40_50,
        SUM(CASE
                WHEN TIMESTAMPDIFF(YEAR, Age_Range, CURDATE()) BETWEEN 50 AND 59 THEN 1
                ELSE 0
            END) AS total_employees_50_6,
        SUM(CASE
                WHEN TIMESTAMPDIFF(YEAR, Age_Range, CURDATE()) > 60 THEN 1
                ELSE 0
            END) AS total_employees_50_60
FROM Employee e
LEFT JOIN Contract c ON e.Employee_ID = c.Employee_ID
WHERE <date_filter> BETWEEN c.Start_Date AND IF(c.End_Date != NULL, c.End_Date, CURDATE())
```