

Week 1

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-- 1. Find the year from a given date
SELECT YEAR('2024-07-18');

-- 2. Given a date, retrieve tomorrow
SELECT ADDDATE('2024-07-18', INTERVAL 1 DAY);

-- 3. Database date
SELECT CURRENT_DATE() AS database_date;

-- 4. Default database name
SELECT DATABASE() AS default_database_name;

-- 5. MySQL username and host name
SELECT User, Host FROM mysql.user;

-- 6. MySQL server version
SELECT VERSION(); -- or SELECT @@VERSION;

-- 7. Bitwise AND, OR, XOR
SELECT 3&2 AS bitwise_and, 3|2 AS bitwise_or, 3^2 AS bitwise_xor;

-- 8. Find the difference between two dates, and print in the number of days
SELECT DATEDIFF('2024-07-20', '2024-07-18') AS difference_in_days;

-- 9. Add 2h 50min to the current time
SELECT ADDTIME(CURTIME(), '02:50:00');

-- 10. Floor and Ceil of a floating point number
SELECT FLOOR(3.14159) AS floored, CEIL(3.14159) AS ceiled;

-- 11. Operations on RegEx
-- Example: Select rows where a column matches a pattern
SELECT * FROM table_name WHERE column_name REGEXP 'pattern';

-- 12. Compare 2 strings
SELECT STRCMP('string1', 'string2') AS comparison_result;

-- 13. Simulate an if-else for grades
SELECT
  CASE
    WHEN grade >= 90 THEN 'A'
    WHEN grade >= 80 THEN 'B'
    WHEN grade >= 70 THEN 'C'
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        WHEN grade >= 60 THEN 'D'
        ELSE 'F'
    END AS grade_category
FROM (SELECT 85 AS grade) AS t; -- Example grade

-- 14. IN(NULL)
SELECT 1 IN (NULL) AS result;

-- 15. Grant all access privileges to the user
GRANT ALL PRIVILEGES ON *.* TO 'username'@'host' WITH GRANT OPTION;
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