**IN CLASS QUERIES**

**--use northwind**

select OrderID, UnitPrice, ABS(UnitPrice - 20.00)

from OrderDetails

SELECT OrderID, UnitPrice, sign(UnitPrice - 10000)

from OrderDetails

SELECT OrderID, UnitPrice, truncate(UnitPrice, 1)

from OrderDetails

SELECT CONCAT(productid, ' - ', ProductName) AS 'Product Description', UnitPrice FROM Products;

**SET SQL\_SAFE\_UPDATES = 0;**

UPDATE Products SET ProductName = REPLACE(ProductName, 'Chai', 'GoodChai’);

SELECT ContactName, LOWER(ContactName), UPPER(ContactName) from Customers;

SELECT OrderID, ShipName, LENGTH(ShipName) FROM Orders WHERE LENGTH(ShipName)>=6;

--LENGTH() returns the length of the **string measured in bytes**.   
--CHAR\_LENGTH() returns he length of the **string measured in characters**

**--** Open schema browser and see the character set for database (latin1)

SELECT OrderID, ShipName, LENGTH(ShipName), CHAR\_LENGTH(ShipName) FROM Orders WHERE LENGTH(ShipName)>=6;

--Now let’s change ShipName column to store the data as Unicode (Unicode stores each character as 2 bytes):

alter table Orders MODIFY COLUMN ShipName VARCHAR(255) Unicode

SELECT OrderID, ShipName, LENGTH(ShipName), CHAR\_LENGTH(ShipName) FROM Orders WHERE LENGTH(ShipName)>=6;

select CompanyName, SUBSTR(CompanyName, 1, 3) from Customers

SELECT SUBSTRING('CLASS SUBSTRING',7);

SELECT SUBSTRING('CLASS SUBSTRING',-2);

SELECT curdate()

select DATE\_FORMAT(HireDate, '%m-%d-%Y') from Employees

Select HireDate, DATE\_ADD(HireDate,  INTERVAL 10 DAY)  from Employees

select dayname('2019-01-24')

Select \* from Employees

SELECT COUNT(DISTINCT(Title)) from Employees

SELECT COUNT(Title) from Employees

select ROUND(AVG(UnitPrice), 2)

from OrderDetails

**USE EMPLOYEES**

SELECT

salary\_year, max\_salary, min\_salary, max\_salary - min\_salary as delta

FROM

(SELECT

DATE\_FORMAT(from\_date, '%Y') AS salary\_year,

MAX(salary) AS max\_salary,

MIN(salary) AS min\_salary

FROM

salaries

GROUP BY salary\_year) as sub\_select;

--HAVING CLAUSE

select first\_name, count(\*) as emp\_count

from employees

group by first\_name

having emp\_count > 100;

--INNER JOIN

SELECT \* FROM

employees

INNER JOIN

dept\_manager

ON employees.emp\_no = dept\_manager.emp\_no;

SELECT \* FROM

employees

JOIN

dept\_manager

ON employees.emp\_no = dept\_manager.emp\_no;

SELECT \* FROM employees, dept\_manager

Where employees.emp\_no = dept\_manager.emp\_no;

--THIS WILL PRODUCE ERROR

SELECT \* FROM

employees as emp

JOIN

dept\_manager as dm

ON emp\_no = emp\_no

--LEFT OUTER JOINS

select \* from employees where emp\_no not in (select emp\_no from dept\_manager);

-- -- Getting all records from left side of the query and give NULL values --for anything there is no match on

SELECT \* FROM employees as emp

LEFT JOIN dept\_manager as dm

ON emp.emp\_no = dm.emp\_no;

--Getting all values from left side of the query (everything in employee table, regardless if there is a match and if there is a match from department table provide that back in result set)

SELECT emp.emp\_no, dm.emp\_no, first\_name, last\_name FROM employees as emp

LEFT JOIN dept\_manager as dm

ON emp.emp\_no = dm.emp\_no;

--Getting all values from left side of the query (everything in employee table, ONLY IF THERE IS A MATCH and if there is a match from department table provide that back in result set)

SELECT emp.emp\_no, dm.emp\_no, first\_name, last\_name

FROM employees as emp

LEFT JOIN dept\_manager as dm

ON emp.emp\_no = dm.emp\_no

where dm.emp\_no is not null;

**Demonstrating database transactions**

**use employees;**

use employees;

select \* from employees;

begin;

INSERT INTO employees SELECT max(emp\_no) + 1, '1986-01-13', 'Irina', 'Mendenhall', 'F', '2019-01-02' FROM employees;

SELECT \* from employees where last\_name = 'Mendenhall';

UPDATE employees

SET birth\_date = '1988-03-02'

WHERE emp\_no = 500000;

DELETE FROM employees

WHERE emp\_no = 500000;

commit;

rollback;

-- turn off

set autocommit=0;

-- turn on

set autocommit=1;

UPDATE employees

SET birth\_date = '1988-03-02'

WHERE emp\_no = 500000;

DELETE FROM employees

WHERE emp\_no = 500000;

rollback;

-- turn off

set autocommit=0;

-- turn on

set autocommit=1;