

Assignment 3: Practice with Functions, Conditional Expressions and Concatenation

Complete following problems related to the professors table you created in assignment 1.

	last_name character varying (20)	department character varying (12)	salary integer	hire_date date
1	Chong	Science	88000	2006-04-18
2	Brown	Math	97000	2002-08-22
3	Jones	History	67000	2009-11-17
4	Wilson	Astronomy	110000	2005-01-15
5	Miller	Agriculture	82000	2008-05-08
6	Williams	Law	105000	2001-06-05

Questions for this assignment

1. Write a query against the professors table that can output the following in the result:
"Chong works in the Science department"
2. Write a SQL query against the professors table that would return the following result:
"It is false that professor Chong is highly paid"
"It is true that professor Brown is highly paid."
"It is false that professor Jones is highly paid"
"It is true that professor Wilson is highly paid"
"It is false that professor Miller is highly paid"
"It is true that professor Williams is highly paid"

NOTE: A professor is highly paid if they make greater than 95000.

3. Write a query that returns all of the records and columns from the professors table but shortens the department names to only the first three characters in upper case.
4. Write a query that returns the highest and lowest salary from the professors table excluding the professor named 'Wilson'.
5. Write a query that will display the hire date of the professor that has been teaching the longest.

Do not scroll past here without trying out the assignment yourself

Instructor Solutions for this assignment

1. Write a query against the professors table that can output the following in the result:
"Chong works in the Science department"

```
SELECT last_name || ' ' || 'works in the ' || department ||  
  
' department'  
  
FROM professors
```

2. Write a SQL query against the professors table that would return the following result:

```
"It is false that professor Chong is highly paid"  
"It is true that professor Brown is highly paid"  
"It is false that professor Jones is highly paid"  
"It is true that professor Wilson is highly paid"  
"It is false that professor Miller is highly paid"  
"It is true that professor Williams is highly paid"
```

NOTE: A professor is highly paid if they make greater than 95000.

```
SELECT 'It is ' || (salary > 95000) ||  
  
' that professor ' || last_name || ' is highly paid'  
  
FROM professors
```

3. Write a query that returns all of the records and columns from the professors table but shortens the department names to only the first three characters in upper case.

```
SELECT last_name,  
  
       UPPER(SUBSTRING(department, 1, 3)) as department,  
  
       salary, hire_date  
  
FROM professors
```

4. Write a query that returns the highest and lowest salary from the professors table excluding the professor named 'Wilson'.

```
SELECT MAX(salary) as highest_salary,
```

```
MIN(salary) as lowest_salary
```

```
FROM professors
```

```
WHERE last_name != 'Wilson'
```

5. Write a query that will display the hire date of the professor that has been teaching the longest.

```
SELECT MIN(hire_date)
```

```
FROM professors
```