

Ch.1 - 3 Transforming your results

Transforming strings

UPPER(<column>) & LOWER(<column>)

```
SELECT city,  
       UPPER(city) AS upper_city,  
       LOWER(city) AS lower_city  
FROM address;
```

city	lower_city	upper_city
Lethbridge	lethbridge	LETHBRIDGE
Woodridge	woodridge	WOODRIDGE
Lethbridge	lethbridge	LETHBRIDGE
Woodridge	woodridge	WOODRIDGE

Transforming numbers

Operators: add (+), subtract (-), divide (/), multiply(*)

```
SELECT replacement_cost,  
       replacement_cost + 2 AS updated_cost,  
       replacement_cost / length AS cost_per_minute  
FROM film;
```

replacement_cost	updated_cost	cost_per_minute
20.99	22.99	0.24406977
12.99	14.99	0.27062500
18.99	20.99	0.37980000

Transforming dates

```
EXTRACT(<part> FROM <date_column>)
```

```
SELECT rental_date,  
       EXTRACT(YEAR FROM rental_date) AS rental_year,  
       EXTRACT(HOUR FROM rental_date) AS rental_hour  
FROM rental;
```

rental_date	rental_year	rental_hour
2005-05-30 23:54:19	2005	23
2005-05-30 23:55:36	2005	23
2005-05-31 00:06:02	2005	0

```
SELECT rental_date,  
       EXTRACT(YEAR FROM rental_date) AS rental_year,  
       EXTRACT(HOUR FROM rental_date) AS rental_hour  
FROM rental;
```

Oracle SQL supports the `EXTRACT` function for both `YEAR` and `HOUR` from a `DATE` or `TIMESTAMP` column.

If `rental_date` is of type `DATE` and you need the hour, you may need to cast it to `TIMESTAMP`:

```
EXTRACT(HOUR FROM CAST(rental_date AS TIMESTAMP)) AS rental_hour
```