

SQL Assignment

Basic Aggregate Functions:

Answer1:

```
SELECT COUNT(*) AS total_rentals FROM rental;
```

Answer 2 :

```
SELECT AVG(rental_duration) AS average_rental_duration FROM rental;
```

String Functions:

Answer 3:

```
SELECT UPPER(first_name) AS first_name, UPPER(last_name) AS last_name  
FROM customer;
```

Answer 4:

```
SELECT UPPER(first_name) AS first_name, UPPER(last_name) AS last_name  
FROM customer;
```

GROUP BY:

Answer 5:

```
SELECT customer_id, COUNT(*) AS rental_count FROM rental GROUP BY customer_id;
```

Answer 6:

```
SELECT store_id, SUM(amount) AS total_revenue FROM payment GROUP BY store_id;
```

Joins:

Answer 7:

```
SELECT f.title, c.first_name, c.last_name  
FROM film f  
JOIN inventory i ON f.film_id = i.film_id  
JOIN rental r ON i.inventory_id = r.inventory_id  
JOIN customer c ON r.customer_id = c.customer_id;
```

Answer 8:

```
SELECT a.first_name, a.last_name
FROM actor a
JOIN film_actor fa ON a.actor_id = fa.actor_id
JOIN film f ON fa.film_id = f.film_id
WHERE f.title = 'Gone with the Wind';
```

Advanced Joins and GROUP BY:

Group by

Answer 1:

```
SELECT fc.category_id, c.name AS category_name, COUNT(*) AS total_rentals
FROM rental r
JOIN inventory i ON r.inventory_id = i.inventory_id
JOIN film f ON i.film_id = f.film_id
JOIN film_category fc ON f.film_id = fc.film_id
JOIN category c ON fc.category_id = c.category_id
GROUP BY fc.category_id, c.name;
```

Answer 2:

```
SELECT l.name AS language, AVG(f.rental_rate) AS average_rental_rate
FROM film f
JOIN language l ON f.language_id = l.language_id
GROUP BY l.name;
```

Answer 3:

```
SELECT c.first_name, c.last_name, SUM(p.amount) AS total_spent
FROM customer c
JOIN payment p ON c.customer_id = p.customer_id
GROUP BY c.customer_id, c.first_name, c.last_name;
```

Answer 4:

```
SELECT f.title, c.first_name, c.last_name
```

```
FROM customer c
JOIN address a ON c.address_id = a.address_id
JOIN city ci ON a.city_id = ci.city_id
JOIN rental r ON c.customer_id = r.customer_id
JOIN inventory i ON r.inventory_id = i.inventory_id
JOIN film f ON i.film_id = f.film_id
WHERE ci.city = 'London'
GROUP BY f.title, c.first_name, c.last_name;
```

Answer 5:

```
SELECT f.title, COUNT(*) AS rental_count
FROM film f
JOIN inventory i ON f.film_id = i.film_id
JOIN rental r ON i.inventory_id = r.inventory_id
GROUP BY f.title
ORDER BY rental_count DESC
LIMIT 5;
```

Answer 6:

```
SELECT c.customer_id, c.first_name, c.last_name
FROM customer c
JOIN rental r1 ON c.customer_id = r1.customer_id
JOIN inventory i1 ON r1.inventory_id = i1.inventory_id AND i1.store_id = 1
JOIN rental r2 ON c.customer_id = r2.customer_id
JOIN inventory i2 ON r2.inventory_id = i2.inventory_id AND i2.store_id = 2
GROUP BY c.customer_id, c.first_name, c.last_name;
```