# SQL Code and Output

After we cleaned our dataset, we now import the dataset into Microsoft SQL Server to learn more about our data.

```
/* Calculate the mean of ride_length. */
SELECT CAST(AVG(CAST(DateDiff(mi, started_at, ended_at) as DECIMAL(8,2))) as DECIMAL(4,2)) AS "Mean ride_length"
    FROM [bike_data].[dbo].[bike_data2];
```

```
Mean ride_length
---------------------------------------
19.43

(1 row affected)
```

```
/* Calculate the max ride_length. */
SELECT MAX(ride_length) AS "Maximum ride_length"
    FROM [bike_data].[dbo].[bike_data2];
```

```
Maximum ride_length
-------------------------------------------------------------------------------------------
9 days 23:57:47

(1 row affected)
```

```
/* Calculate the mode of day of week. */
SELECT TOP 1 day_of_week AS "Days by popularity",
    COUNT(*) AS "Count"
    FROM [bike_data].[dbo].[bike_data2]
    GROUP BY day_of_week
    ORDER BY COUNT(*) DESC;
```

```
Days by popularity                      count
--------------------------------------- -----------------------------------------------
Saturday                                921356

(1 row affected)
```

```
/* Calculate the average ride_length for members and casual riders. */
SELECT CAST(AVG(CAST(DateDiff(mi, started_at, ended_at) as DECIMAL(7,2))) AS DECIMAL(4,2)) AS "Average ride_length",
member_casual
    FROM [bike_data].[dbo].[bike_data2]
    GROUP BY member_casual;
```

```
Average ride_length                     member_casual
--------------------------------------- -----------------------------------------------
```

```
12.71                                   member
29.12                                   casual

(2 rows affected)
```

```
/* Calculute the average ride_length for users by day_of_week. */

SELECT CAST(AVG(CAST(DateDiff(mi, started_at, ended_at) as DECIMAL(7,2))) AS DECIMAL(4,2)) AS "Average ride_length",
day_of_week
    FROM [bike_data].[dbo].[bike_data2]
    GROUP BY day_of_week;
```

```
Average ride_length                     day_of_week
--------------------------------------- --------------------------------------------------
16.82                                   Tuesday
17.18                                   Thursday
24.09                                   Sunday
16.39                                   Wednesday
18.87                                   Friday
18.55                                   Monday
23.66                                   Saturday

(7 rows affected)
```

```
SELECT CAST(AVG(CAST(DateDiff(mi, started_at, ended_at) as DECIMAL(7,2))) AS DECIMAL(4,2)) AS "Average ride_length",
day_of_week,
member_casual
    FROM [bike_data].[dbo].[bike_data2]
    GROUP BY member_casual, day_of_week
    ORDER BY member_casual;
```

| | Average ride_length | day_of_week | member_casual |
|---|---|---|---|
| 1 | 34.09 | Sunday | casual |
| 2 | 25.98 | Tuesday | casual |
| 3 | 24.71 | Wednesday | casual |
| 4 | 25.58 | Thursday | casual |
| 5 | 27.80 | Friday | casual |
| 6 | 29.23 | Monday | casual |
| 7 | 32.54 | Saturday | casual |
| 8 | 12.07 | Wednesday | member |
| 9 | 12.27 | Monday | member |
| 10 | 14.05 | Sunday | member |
| 11 | 12.15 | Tuesday | member |
| 12 | 12.50 | Friday | member |
| 13 | 12.30 | Thursday | member |
| 14 | 14.15 | Saturday | member |

```sql
/* Calculate the number of rides for users by day_of_week by adding Count of trip_id to Values.*/
SELECT day_of_week,
    count(*) AS "Number of rides"
    FROM [bike_data].[dbo].[bike_data2]
    GROUP BY day_of_week;
```

| | day_of_week | Number of rides |
|---|---|---|
| 1 | Tuesday | 782121 |
| 2 | Thursday | 853429 |
| 3 | Sunday | 782045 |
| 4 | Wednesday | 816518 |
| 5 | Friday | 816810 |
| 6 | Monday | 756824 |
| 7 | Saturday | 921356 |