
Code for analyzing which stations are empty

```
SELECT name, bikes_count, nbEmptyDocks
FROM bigquery-public-data.london_bicycles.cycle_stations
WHERE bikes_count = 0 AND nbEmptyDocks != 0
ORDER BY nbEmptyDocks DESC
```

Result: 19 observations, min capacity 9, max capacity 57.
Top 3 observations: Soho Square, Lambeth Palace Road, Holland Park.

2nd Run

Row	name	bikes_count	nbEmptyDocks
1	Fashion Street, Whitechapel	0	30
2	Fire Brigade Pier, Vauxhall	0	30
3	Holland Park, Kensington	0	30
4	Chapel Place, Marylebone	0	29
5	Golden Lane, Barbican	0	27
6	Theobald's Road , Holborn	0	26
7	Whitehall Place, Strand	0	24
8	Marylebone Lane, Marylebone	0	24
9	Exhibition Road Museums, South Kensington	0	22
10	Woodstock Street, Mayfair	0	21
11	Little Argyll Street, West End	0	21
12	Sumner Place, South Kensington	0	19
13	Upper Grosvenor Street, Mayfair	0	18
14	Fournier Street, Whitechapel	0	18
15	North Audley Street, Mayfair	0	17
16	Grosvenor Square, Mayfair	0	17
17	Curzon Street, Mayfair	0	16
18	Clarges Street, Mayfair	0	16
19	Royal Avenue 1, Chelsea	0	9

3rd Run

Row	name	bikes_count	nbEmptyDocks
1	Fashion Street, Whitechapel	0	30
2	Fire Brigade Pier, Vauxhall	0	30
3	Holland Park, Kensington	0	30
4	Chapel Place, Marylebone	0	29
5	Golden Lane, Barbican	0	27
6	Theobald's Road , Holborn	0	26
7	Whitehall Place, Strand	0	24
8	Marylebone Lane, Marylebone	0	24
9	Exhibition Road Museums, South Kensington	0	22
10	Woodstock Street, Mayfair	0	21
11	Little Argyll Street, West End	0	21
12	Sumner Place, South Kensington	0	19
13	Upper Grosvenor Street, Mayfair	0	18
14	Fournier Street, Whitechapel	0	18
15	North Audley Street, Mayfair	0	17
16	Grosvenor Square, Mayfair	0	17
17	Curzon Street, Mayfair	0	16
18	Clarges Street, Mayfair	0	16
19	Royal Avenue 1, Chelsea	0	9

Code for analyzing how many stations are there

**SELECT count(name) AS station_count
FROM bigquery-public-data.london_bicycles.cycle_stations**

Result: 781 observations

Code for analyzing what are the most popular stations

```
SELECT COUNT (start_station_id) AS start, start_station_name, COUNT (end_station_id)
AS end_station, end_station_name
FROM `bigquery-public-data.london_bicycles.cycle_hire`
GROUP BY start_station_name , end_station_name
ORDER BY start DESC
```

Result: Hyde Park Corner, Black Lion Gate, Albert Gate are the most famous stations to start and end with.

Code for analyzing peak hours

```
SELECT COUNT(*) as dur, hours
FROM (
SELECT EXTRACT (hour FROM start_date) AS hours, EXTRACT (dayofweek FROM
start_date), start_station_name
from `bigquery-public-data.london_bicycles.cycle_hire`
)
GROUP BY hours
ORDER BY dur DESC
```

Result = 8am, 5-6pm

Code for analyzing peak hours at Hyde Park

```
SELECT COUNT(*) as dur, hours
FROM (
SELECT EXTRACT (hour FROM start_date) AS hours, EXTRACT (dayofweek FROM
start_date), start_station_name
from `bigquery-public-data.london_bicycles.cycle_hire`
)
WHERE start_station_name = "Hyde Park Corner, Hyde Park"
GROUP BY hours
ORDER BY dur DESC
```

Result = 3-5pm

Code for analyzing peak hours at Black Lion Gate

```
SELECT COUNT(*) as dur, hours
FROM (
SELECT EXTRACT (hour FROM start_date) AS hours, EXTRACT (dayofweek FROM
start_date), start_station_name
from `bigquery-public-data.london_bicycles.cycle_hire`
)
WHERE start_station_name = "Hyde Park Corner, Hyde Park"
GROUP BY hours
ORDER BY dur DESC
```

Result = 2-4pm

Code for analyzing peak hours at Albert Gate

```
SELECT COUNT(*) as dur, hours
FROM (
SELECT EXTRACT (hour FROM start_date) AS hours, EXTRACT (dayofweek FROM
start_date), start_station_name
from `bigquery-public-data.london_bicycles.cycle_hire`
)
WHERE start_station_name = "Albert Gate, Hyde Park"
GROUP BY hours
ORDER BY dur DESC
```

Result = 2-4pm

Code for analyzing average duration(seconds)

```
SELECT AVG(duration)
FROM `bigquery-public-data.london_bicycles.cycle_hire`
```

Result = 1332 seconds (22mins)

Code for analyzing which trips takes the longest duration(seconds)

```
SELECT AVG(duration) AS dur, start_station_name, end_station_name
FROM `bigquery-public-data.london_bicycles.cycle_hire`
GROUP BY start_station_name, end_station_name
ORDER BY dur DESC
```

Result:

Row	dur	start_station_name	end_station_name
1	2396640.0	Ethelburga Estate, Battersea Park	Mechanical Workshop Clapham
2	2305800.0	Princedale Road , Holland Park	Grant Road East, Clapham Junction
3	2262120.0	Great Dover Street, Borough	Mechanical Workshop Clapham

Code for analyzing cancelled trips

```
SELECT COUNT(start_station_name) AS cancelled_trip, start_station_name
FROM `bigquery-public-data.london_bicycles.cycle_hire`
WHERE duration = 0
```

GROUP BY start_station_name
ORDER BY cancelled_trip DESC

Result

Row	cancelled_trip	start_station_name
1	287	Hyde Park Corner, Hyde Park
2	247	Black Lion Gate, Kensington Gardens
3	203	Albert Gate, Hyde Park
