DMDD REPORT 1

Group 7

Objective :- To find out the number of bikes at each dock station

Introduction:

Bluebikes ride sharing is one of the highlights of the bicycle transportation in Boston. With 393 Bike stations and 3800 bikes, it has been an essential mode of commute. It is going very much hand-in-hand with Boston's reputation of being one of the most walkable cities. And, since the onset of Covid pandemic, Bluebikes has become an essential mode of commute for students, working class people as well as travelers. Bluebikes are easily available and affordable promoting self-distancing during pandemic.

Problem Statement:

The model that we propose ensures a smooth transaction and provides the rider with an efficient and smooth ride around the city. Through our model, we wish to solve problems related to

Bluebike renting system has challenges due to payment issues and slow loading of the application. Common issues faced by the users are – not being able to rent or return bikes, etc.

Fare calculation for the bikes according to time duration covered, membership mode of user and accepting discount coupons.

Ensure user data privacy and storage of past user reservations, bike inventory and creating data accessibility by roles and requirements.

Query :-

```
" -- BIKES AT EACH DOCK
SELECT COUNT(*) AS NO_OF_BIKES_AT_DOCK1 FROM BIKE WHERE DOCK_ID=100
AND BIKE_STATUS = 'AVAILABLE';
SELECT COUNT(*) AS NO_OF_BIKES_AT_DOCK2 FROM BIKE WHERE DOCK_ID=101
```

```
AND BIKE_STATUS = 'AVAILABLE';
SELECT COUNT(*) AS NO_OF_BIKES_AT_DOCK3 FROM BIKE WHERE DOCK_ID=102
AND BIKE_STATUS = 'AVAILABLE';
SELECT COUNT(*) AS NO_OF_BIKES_AT_DOCK4 FROM BIKE WHERE DOCK_ID=103
AND BIKE_STATUS = 'AVAILABLE';
SELECT COUNT(*) AS NO_OF_BIKES_AT_DOCK5 FROM BIKE WHERE DOCK_ID=104
AND BIKE_STATUS = 'AVAILABLE';”
```

Description :-

Finding out the number of bikes at each station is important, since it will enable user to view whether the bikes are available at his desired docking station or he/she will have to travel more to get the bike for rent. This also helps in assisting with the customer service issues as well as maintaining the bike inventory.

Results :

```
SET SERVEROUTPUT ON;

-- BIKES AT EACH DOCK
SELECT COUNT(*) AS NO_OF_BIKES_AT_DOCK1 FROM BIKE WHERE DOCK_ID=100 AND BIKE_STATUS = 'AVAILABLE';
SELECT COUNT(*) AS NO_OF_BIKES_AT_DOCK2 FROM BIKE WHERE DOCK_ID=101 AND BIKE_STATUS = 'AVAILABLE';
SELECT COUNT(*) AS NO_OF_BIKES_AT_DOCK3 FROM BIKE WHERE DOCK_ID=102 AND BIKE_STATUS = 'AVAILABLE';
SELECT COUNT(*) AS NO_OF_BIKES_AT_DOCK4 FROM BIKE WHERE DOCK_ID=103 AND BIKE_STATUS = 'AVAILABLE';
SELECT COUNT(*) AS NO_OF_BIKES_AT_DOCK5 FROM BIKE WHERE DOCK_ID=104 AND BIKE_STATUS = 'AVAILABLE';
```

Script Output | Query Result | Query Result 1 | Query Result 2 | Query Result 3 | Query Result

SQL | All Rows Fetched: 1 in 0.117 seconds

	NO_OF_BIKES_AT_DOCK4
1	8

```
SET SERVEROUTPUT ON;

-- BIKES AT EACH DOCK
SELECT COUNT(*) AS NO_OF_BIKES_AT_DOCK1 FROM BIKE WHERE DOCK_ID=100 AND BIKE_STATUS = 'AVAILABLE';
SELECT COUNT(*) AS NO_OF_BIKES_AT_DOCK2 FROM BIKE WHERE DOCK_ID=101 AND BIKE_STATUS = 'AVAILABLE';
SELECT COUNT(*) AS NO_OF_BIKES_AT_DOCK3 FROM BIKE WHERE DOCK_ID=102 AND BIKE_STATUS = 'AVAILABLE';
SELECT COUNT(*) AS NO_OF_BIKES_AT_DOCK4 FROM BIKE WHERE DOCK_ID=103 AND BIKE_STATUS = 'AVAILABLE';
SELECT COUNT(*) AS NO_OF_BIKES_AT_DOCK5 FROM BIKE WHERE DOCK_ID=104 AND BIKE_STATUS = 'AVAILABLE';
```

Script Output × | Query Result × | Query Result 1 × | Query Result 2 × | Query Result 3 × | Query Resu

SQL | All Rows Fetched: 1 in 0.102 seconds

	NO_OF_BIKES_AT_DOCK5
1	10

```
SET SERVEROUTPUT ON;

-- BIKES AT EACH DOCK
SELECT COUNT(*) AS NO_OF_BIKES_AT_DOCK1 FROM BIKE WHERE DOCK_ID=100 AND BIKE_STATUS = 'AVAILABLE';
SELECT COUNT(*) AS NO_OF_BIKES_AT_DOCK2 FROM BIKE WHERE DOCK_ID=101 AND BIKE_STATUS = 'AVAILABLE';
SELECT COUNT(*) AS NO_OF_BIKES_AT_DOCK3 FROM BIKE WHERE DOCK_ID=102 AND BIKE_STATUS = 'AVAILABLE';
SELECT COUNT(*) AS NO_OF_BIKES_AT_DOCK4 FROM BIKE WHERE DOCK_ID=103 AND BIKE_STATUS = 'AVAILABLE';
SELECT COUNT(*) AS NO_OF_BIKES_AT_DOCK5 FROM BIKE WHERE DOCK_ID=104 AND BIKE_STATUS = 'AVAILABLE';
```

Script Output | Query Result | Query Result 1 | Query Result 2 | Query Result 3 | Query Resul

SQL | All Rows Fetched: 1 in 0.089 seconds

	NO_OF_BIKES_AT_DOCK3
1	9

```
SET SERVEROUTPUT ON;

-- BIKES AT EACH DOCK
SELECT COUNT(*) AS NO_OF_BIKES_AT_DOCK1 FROM BIKE WHERE DOCK_ID=100 AND BIKE_STATUS = 'AVAILABLE';
SELECT COUNT(*) AS NO_OF_BIKES_AT_DOCK2 FROM BIKE WHERE DOCK_ID=101 AND BIKE_STATUS = 'AVAILABLE';
SELECT COUNT(*) AS NO_OF_BIKES_AT_DOCK3 FROM BIKE WHERE DOCK_ID=102 AND BIKE_STATUS = 'AVAILABLE';
SELECT COUNT(*) AS NO_OF_BIKES_AT_DOCK4 FROM BIKE WHERE DOCK_ID=103 AND BIKE_STATUS = 'AVAILABLE';
SELECT COUNT(*) AS NO_OF_BIKES_AT_DOCK5 FROM BIKE WHERE DOCK_ID=104 AND BIKE_STATUS = 'AVAILABLE';
```

Script Output | Query Result | Query Result 1 | Query Result 2 | Query Result 3 | Query Result 4

SQL | All Rows Fetched: 1 in 0.113 seconds

	NO_OF_BIKES_AT_DOCK2
1	5

```
SET SERVEROUTPUT ON;

-- BIKES AT EACH DOCK
SELECT COUNT(*) AS NO_OF_BIKES_AT_DOCK1 FROM BIKE WHERE DOCK_ID=100 AND BIKE_STATUS = 'AVAILABLE';
SELECT COUNT(*) AS NO_OF_BIKES_AT_DOCK2 FROM BIKE WHERE DOCK_ID=101 AND BIKE_STATUS = 'AVAILABLE';
SELECT COUNT(*) AS NO_OF_BIKES_AT_DOCK3 FROM BIKE WHERE DOCK_ID=102 AND BIKE_STATUS = 'AVAILABLE';
SELECT COUNT(*) AS NO_OF_BIKES_AT_DOCK4 FROM BIKE WHERE DOCK_ID=103 AND BIKE_STATUS = 'AVAILABLE';
SELECT COUNT(*) AS NO_OF_BIKES_AT_DOCK5 FROM BIKE WHERE DOCK_ID=104 AND BIKE_STATUS = 'AVAILABLE';
```

Script Output | Query Result | Query Result 1 | Query Result 2 | Query Result 3 | Query Re

SQL | All Rows Fetched: 1 in 0.077 seconds

	NO_OF_BIKES
1	8

Result :- Available number of bikes will be shown at the docking station.