

```
1 create database SocialBuzz;
2
3 use SocialBuzz;
4
5 select * from Reactions;
6 select * from Content;
7 select * from ReactionTypes;
8
9 drop table Reactions
10
11 /*Data Cleaning*/
12 select * from Reactions;
13
14 /*removing unnecessary columns from Reactions*/
15 alter table Reactions
16 drop column column1, User_ID;
17
18 /*checking null values in columns*/
19 select * FROM Reactions
20 where Content_ID IS NULL OR Type IS NULL OR Datetime IS NULL;
21
22 /*delete the rows having null values*/
23 delete from Reactions
24 where Content_ID IS NULL OR Type IS NULL OR Datetime IS NULL;
25
26 -----
27
28 /*removing unnecessary columns from Content*/
29 alter table Content
30 drop column column1, User_ID, URL;
31
32 /*checking null values in columns*/
33 select * FROM Content
34 where Content_ID IS NULL OR Type IS NULL OR Datetime IS NULL;
35
36 /*Updating Category column with lowercase values*/
37 update Content
38 set Category=LOWER(Category);
39
40 /*Checking Category column*/
41 select * from Content where Category LIKE '%%';
42
43 /*Updating Category column with correct values*/
44 update Content
45 set Category=REPLACE(Category, '', '')
46 where Category LIKE '%%';
47
48 /*checking null values in columns*/
49 select * FROM Content
```

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50 where Content_ID IS NULL OR Type IS NULL OR Category IS NULL;
51
52 -----
53
54 /*removing unnecessary columns from ReactionType*/
55 alter table ReactionTypes
56 drop column column1;
57
58 /*checking null values in columns*/
59 select * FROM ReactionTypes
60 where Type IS NULL OR Sentiment IS NULL OR Score IS NULL;
61
62 -----
63
64 /*Creating View*/
65 create VIEW Dataset AS
66 select r.Content_ID, r.Type AS Reaction_Type, c.Type AS Content_Type,
67 c.Category, t.Sentiment, t.Score, CAST(r.Datetime AS DATE) AS Date,
68 CONVERT(TIME(0), r.Datetime) AS Time from Reactions r
69 LEFT JOIN Content c
70 ON c.Content_ID=r.Content_ID
71 LEFT JOIN ReactionTypes t
72 ON t.Type=r.Type;
73
74 /*Selecting data from View*/
75 select * from Dataset;
76
77 -----
78 /*SQL Queries for Report*/
79 /*KPI's*/
80 --Unique Categories
81 select COUNT(DISTINCT Category) AS [Unique Categories] from Dataset;
82
83 --Total Reactions
84 select SUM(Score) AS [Total Score] from Dataset;
85
86 --Total Reactions
87 select COUNT(Reaction_Type) AS [Total Reactions] from Dataset;
88
89 /*Visuals*/
90 /*Total Posts by Month and Year*/
91 select COUNT(Content_ID) AS [Total Posts], DATENAME(MONTH,Date) AS Month,
92 DATEPART(YEAR, Date) AS Year from Dataset
93 group by DATENAME(MONTH,Date), DATEPART(YEAR, Date), MONTH(Date)
94 order by MONTH(Date); /*ordering by Month number*/
95
96 /*Pivoting the Total Posts by Month and Year*/
97 select Year,
98 COALESCE(January, '') AS January,
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99     COALESCE(February, '') AS February,
100     COALESCE(March, '') AS March,
101     COALESCE(April, '') AS April,
102     COALESCE(May, '') AS May,
103     COALESCE(June, '') AS June,
104     COALESCE(July, '') AS July,
105     COALESCE(August, '') AS August,
106     COALESCE(September, '') AS September,
107     COALESCE(October, '') AS October,
108     COALESCE(November, '') AS November,
109     COALESCE(December, '') AS December
110 from
111 (
112     select COUNT(Content_ID) AS Total_Posts, DATENAME(MONTH,Date) AS Month,
113           DATEPART(YEAR, Date) AS Year from Dataset
114     group by DATENAME(MONTH,Date), DATEPART(YEAR, Date)
115 ) AS PostsDataset
116 PIVOT
117 (
118     SUM(Total_Posts) FOR Month IN ([January], [February], [March],
119     [April], [May], [June], [July], [August], [September], [October],
120     [November], [December])
121 ) AS PivotDataset
122 order by Year;
123 /*Top 5 Categories by Reaction Type*/
124 select TOP 5 WITH TIES
125     Category,
126     Reaction_Type_Count,
127     CONCAT(ROUND(CAST(Reaction_Type_Count AS FLOAT) / SUM(Reaction_Type_Count)
128     OVER() * 100, 2), '%') AS [Percentage of Reaction_Type_Count]
129 from
130 (
131     select
132         Category,
133         COUNT(Reaction_Type) AS Reaction_Type_Count,
134         DENSE_RANK() OVER (ORDER BY COUNT(Reaction_Type) DESC) AS Rank
135     from Dataset
136     group by Category
137 ) AS RankedCategories
138 where RankedCategories.Rank <= 5 --filters the top 5 categories from
139     RankedCategories.
140 order by Reaction_Type_Count DESC;
141 /*Top 5 Categories by Total Score*/
142 select TOP 5 WITH TIES Category, SUM(Score) AS Total_Score from Dataset
143 group by Category
144 order by Total_Score DESC;

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145 /*Total Score by Sentiment*/
146 select Sentiment, SUM(Score) AS Total_Score from Dataset
147 group by Sentiment
148 order by Total_Score DESC;
149
150
151
152
153
154
155
156
157
158
```