

-- Check for missing values in key fields of the table

```
17
18 -- Check for missing values in key fields of the table
19 SELECT COUNT(*) AS MissingValues
20 FROM AppleStore
21 WHERE ID IS NULL OR user_rating IS NULL OR track_name IS NULL OR prime_genre IS NULL;
22
23 SELECT COUNT(*) AS MissingValues
24 FROM appstore_description_combined
25 WHERE ID IS NULL OR track_name IS NULL OR app_desc IS NULL;
```

MissingValues
0

Check the no of unique apps in both the tables

```
10
11 -- Check the number of unique apps in both the tables
12 SELECT COUNT(DISTINCT ID) AS UniqueAppIDs
13 FROM AppleStore;
14
15 SELECT COUNT(DISTINCT ID) AS UniqueAppIDs
16 FROM appstore_description_combined;
17
```

UniqueAppIDs
7197

No missing values and no data quality issues in both the tables.

-- Get an overview of the apps ratings

```
36
37 -- Get an overview of the apps ratings
38 SELECT MIN(user_rating) AS MinRating,
39        MAX(user_rating) AS MaxRating,
40        AVG(user_rating) AS AvgRating
41 FROM AppleStore;
```

MinRating	MaxRating	AvgRating
0	5	3.526955675976101

Minimum Rating is 0

Maximum Rating is 5

Average Rating is 3.52

-- Find out the number of apps per genre

```
28
29 -- Find out the number of apps per genre
30 SELECT prime_genre, COUNT(*) AS No_of_apps
31 FROM AppleStore
32 GROUP BY prime_genre
33 ORDER BY No_of_apps DESC;
--
```

prime_genre	No_of_apps
Games	3862
Entertainment	535
Education	453
Photo & Video	349
Utilities	248
Health & Fitness	180
Productivity	178
Social Networking	167
Lifestyle	144
Music	138
Shopping	122

Games and Entertainment genres are clearly leading with a huge number of apps.

--Check the top-rated apps for each genre

```
95 -- Check the top-rated apps for each genre
96 SELECT
97     prime_genre,
98     track_name,
99     user_rating
100 FROM (
101     SELECT
102         prime_genre,
103         track_name,
104         user_rating,
105         RANK() OVER(PARTITION BY prime_genre ORDER BY user_rating DESC, rating_count_tot DESC) AS RANK
106     FROM
107         AppleStore
108 ) AS A
109 WHERE
110     A.RANK = 1;
```

prime_genre	track_name	user_rating
Book	Color Therapy Adult Coloring Book for Adults	5
Business	TurboScan™ Pro - document & receipt scanner: scan multiple ...	5
Catalogs	CPlus for Craigslist app - mobile classifieds	5
Education	Elevate - Brain Training and Games	5
Entertainment	Bruh-Button	5

prime_genre	track_name	user_rating
Finance	Credit Karma: Free Credit Scores, Reports & Alerts	5
Food & Drink	Domino's Pizza USA	5
Games	Head Soccer	5
Health & Fitness	Yoga Studio	5
Lifestyle	ipsy - Makeup, subscription and beauty tips	5

prime_genre	track_name	user_rating
Medical	Blink Health	5
Music	Tenuto	5
Navigation	parkOmatör – for Apple Watch meter expiration timer, notificati...	5
News	The Guardian	5
Photo & Video	Pic Collage - Picture Editor & Photo Collage Maker	5

prime_genre	track_name	user_rating
Productivity	VPN Proxy Master - Unlimited WiFi security VPN	5
Reference	Sky Guide: View Stars Night or Day	5
Shopping	Zappos: shop shoes & clothes, fast free shipping	5
Social Networking	We Heart It - Fashion, wallpapers, quotes, tattoos	5
Sports	J23 - Jordan Release Dates and History	5

prime_genre	track_name	user_rating
Travel	Urlaubspiraten	5
Utilities	Flashlight ☹	5
Weather	NOAA Hi-Def Radar Pro - Storm Warnings, Hurricane Tracker ...	5

-- Determine whether paid apps have a higher rating than free apps

```
43 -- Determine whether paid apps have a higher rating than free apps
44 SELECT
45     CASE
46         WHEN price > 0 THEN 'Paid'
47         ELSE 'Free'
48     END AS app_type,
49     AVG(user_rating) AS Avg_rating
50 FROM AppleStore
51 GROUP BY app_type;
```

app_type	Avg_rating
Free	3.3767258382642997
Paid	3.720948742438714

Rating of paid apps is slightly higher compared to free apps.

-- Check if apps with more support languages have higher ratings

```
54
55 -- Check if apps with more supported languages have higher ratings
56 SELECT
57     CASE
58         WHEN lang_num < 10 THEN '<10 languages'
59         WHEN lang_num BETWEEN 10 AND 30 THEN '10-30 languages'
60         ELSE '>30 languages'
61     END AS language_bucket,
62     AVG(user_rating) AS Avg_rating
63 FROM AppleStore
64 GROUP BY language_bucket
65 ORDER BY Avg_rating DESC;
```

language_bucket	Avg_rating
10-30 languages	4.1305120910384066
>30 languages	3.7777777777777777
<10 languages	3.368327402135231

Apps with a moderate range of language support (10-30) have received higher ratings compared to those with either more extensive (>30 languages) or more limited support (<10 languages).

-- Check genres with low ratings

```
68 SELECT
69     prime_genre,
70     AVG(user_rating) AS Avg_rating
71 FROM AppleStore
72 GROUP BY prime_genre
73 ORDER BY Avg_rating ASC
74 LIMIT 10;
--
```

prime_genre	Avg_rating
Catalogs	2.1
Finance	2.4326923076923075
Book	2.4776785714285716
Navigation	2.6847826086956523
Lifestyle	2.8055555555555554
News	2.98
Sports	2.982456140350877
Social Networking	2.9850299401197606
Food & Drink	3.1825396825396823
Entertainment	3.2467289719626167

Developers have a great chance for success by creating quality apps in these categories.

-- Check if there is a correlation between the length of app description and user ratings

```
77
78 -- Check if there is a correlation between the length of app description and user ratings
79 SELECT
80     CASE
81         WHEN LENGTH(B.app_desc) < 300 THEN 'Short'
82         WHEN LENGTH(B.app_desc) BETWEEN 500 AND 1000 THEN 'Medium'
83         ELSE 'Long'
84     END AS description_length_bucket,
85     AVG(user_rating) AS Avg_rating
86 FROM
87     AppleStore AS A
88 JOIN
89     appstore_description_combined AS B
90 ON
91     A.id = B.id
92 GROUP BY description_length_bucket
93 ORDER BY Avg_rating DESC;
```

description_length_bucket	Avg_rating
Long	3.7146676852559204
Medium	3.2344804318488527
Short	2.3799582463465554

The length of app descriptions appears to be correlated with user ratings, with longer descriptions being associated with higher ratings. Developers may consider providing more detailed and informative descriptions to potentially enhance user satisfaction and ratings.