CODING SYNTAX TO ANALYSES BRIGHT TV VIEWERSHIP USAGE TRENDS

1. **Syntax for converting time to South African zone**

```
1    ---BRIGHTLIGHT.PUBLICBRIGHTLIGHT.PUBLIC--CONVERTING TIME TO +UCT (RSA TIME)---
2    SELECT*,
3    DATEADD (hour,2,RECORD)
4    FROM VIEWERSHIP;
5
```


	# USERID	A CHANNEL2	⏲ DATE	⏲ RECORD	⏲ DURATION_2	⏲ TIME_SA
1	903994	Trace TV	2016-01-04	20:09:00	00:02:00	null
2	802352	ICC Cricket World	2016-03-30	11:04:00	00:10:06	null
3	866125	ICC Cricket World	2016-03-30	19:01:00	00:00:42	null
4	2425604	ICC Cricket World	2016-03-25	17:23:00	00:00:10	null
5	793571	SawSee	2016-02-02	19:18:00	00:01:33	null
6	793571	Boomerang	2016-03-18	18:56:00	00:00:10	null
7	793571	Channel O	2016-03-20	06:25:00	00:17:15	null
8	793571	Boomerang	2016-02-03	08:43:00	00:01:13	null

Query Details

Query duration

Rows

Query ID   01bc43b9

Show more ⌄

USERID

2. **Syntax for joining 2 tables (customer profile and viewership table**

```
---JOINING 2 TABLES ---------

CREATE TABLE BRIGHTLIGHT_TV_VIEWERSHIP AS
SELECT A.USERID,NAME,SURNAME,GENDER,RACE,AGE,PROVINCE,CHANNEL2,DATE,RECORD,TIME_SA,DURATION_2
FROM CUSTOMER AS A
INNER JOIN VIEWERSHIP AS B
ON A.USERID=B.USERID;
```

3. **Syntax for renaming null function as "not specified"**

```
--NULL FUNCTION
SELECT IFNULL(race,'not_specified')
from brightlight_tv_viewership;
UPDATE BRIGHTLIGHT_TV_VIEWERSHIP
SET RACE= 'not_specified'
WHERE RACE IS NULL;
```

4. **Grouping ages into specific ranges of age bucket for analysis**

```
--AGE BUCKETS
SELECT USERID,AGE,
CASE
WHEN AGE=0 THEN 'NOT_SPECIFIED'
WHEN AGE BETWEEN 1 AND 3  THEN 'TODDLER'
WHEN AGE BETWEEN 4 AND 5 THEN 'PRESCHOOLERS'
WHEN AGE BETWEEN 6 AND 12 THEN 'CHILDREN'
WHEN AGE BETWEEN 13 AND 19 THEN 'TEENAGER'
WHEN AGE BETWEEN 20 AND 29 THEN 'YOUNG_ADULTS'
WHEN AGE BETWEEN 30 AND 39 THEN 'EARLY_ADULTS'
WHEN AGE BETWEEN 40 AND 50 THEN 'MIDDLE_AGE_ADULTS'
WHEN AGE BETWEEN 51 AND 64 THEN 'ADULTS'
ELSE 'SENIORS'
END AS AGE_BUCKET
FROM BRIGHTLIGHT_TV_VIEWERSHIP;
ALTER TABLE BRIGHTLIGHT_TV_VIEWERSHIP ADD COLUMN AGE_BUCKET NUMBER;
```

5. **Time grouped into specific ranges of time bucket for analysis**

```
---- TIME BUCKET--

SELECT
  USERID,
  RECORD,
  CASE
    WHEN CAST(RECORD AS TIME) BETWEEN TIME '02:00:00' AND TIME '05:59:59' THEN 'Graveyard_slots'
    WHEN CAST(RECORD AS TIME) BETWEEN TIME '06:00:00' AND TIME '11:59:59' THEN 'Morning'
    WHEN CAST(RECORD AS TIME) BETWEEN TIME '12:00:00' AND TIME '16:59:59' THEN 'Daytime'
    WHEN CAST(RECORD AS TIME) BETWEEN TIME '17:00:00' AND TIME '18:59:59' THEN 'Early_peak'
    WHEN CAST(RECORD AS TIME) BETWEEN TIME '19:00:00' AND TIME '21:59:59' THEN 'Prime_time'
    WHEN CAST(RECORD AS TIME) BETWEEN TIME '22:00:00' AND TIME '22:59:59' THEN 'Late_peak'
    ELSE 'Over_night'
  END AS TIME_BUCKET
FROM BRIGHTLIGHT_TV_VIEWERSHIP;
```

6. **Grouping duration for channel viewing into duration buckets**

```
---DURATION (WATCH TIME) BUCKETS
SELECT USERID, DURATION_2,
CASE
WHEN DURATION_2= '00:00:00' THEN 'NOT_VIEWED'
WHEN DURATION_2 BETWEEN '00:00:01' AND '00:29:00' THEN 'LESS_THAN_30_MIN'
WHEN DURATION_2 BETWEEN '00:30:00' AND '00:59:00' THEN 'LESS_THAN_1H'
WHEN DURATION_2 BETWEEN '01:00:00' AND '01:29:00' THEN 'LESS_THAN_1H_30'
WHEN DURATION_2 BETWEEN '01:30:00' AND '01:59:00' THEN 'LESS_THAN_2H'
WHEN DURATION_2 BETWEEN '02:00:00' AND '02:29:00' THEN 'LESS_THAN_2H_30'
WHEN DURATION_2 BETWEEN '02:30:00' AND '02:59:00' THEN 'LESS_THAN_3H'
WHEN DURATION_2 BETWEEN '03:00:00' AND '03:29:00' THEN 'LESS_THAN_3H_30'
ELSE 'LESS_THAN_4H'
END AS WATCH_TIME
FROM BRIGHTLIGHT_TV_VIEWERSHIP;
```

7. **Syntax to analyse start date to end date**

```
78    ----Consumption trends (start and end date)--
79    SELECT DATE
80    FROM BRIGHTLIGHT_TV_VIEWERSHIP
81    ORDER BY DATE DESC;
82
```

↳ Results   ~ Chart

2025-05-03 6:25pm
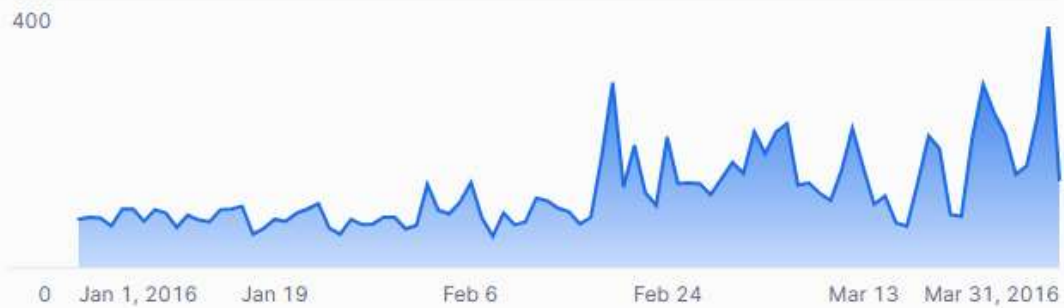
8. **Syntax to analyse total number of customers using distinct user id**

```
82
83
84    ---TOTAL NUMBER OF VIEWERS
85    SELECT COUNT (DISTINCT USERID) AS TOTAL_VIEWERS
86    FROM BRIGHTLIGHT_TV_VIEWERSHIP;
87
```

↳ Results   ~ Chart

TOTAL_VIEWERS
1	4386

9. Syntax to analyse the number of views for bright light TV

```
84    ---TOTAL NUMBER OF VIEWERS
85    SELECT COUNT (DISTINCT USERID) AS TOTAL_VIEWERS
86    FROM BRIGHTLIGHT_TV_VIEWERSHIP;
87
88    ---TOTAL VIEWERS PER PROVINCE
```

↳ **Results**   ∿ Chart

	A PROVINCE	# TOTAL_VIEWERS_PROVINCE
1	Limpopo	763
2	Northern Cape	230
3	None	263
4	Gauteng	3654
5	Eastern Cape	690
6	Kwazulu Natal	1001
7	Western Cape	1845
8	Free State	292
9	North West	344

10. Syntax to analyse the total views by different race

```
92
93    ---TOTAL VIEWERS PER RACE
94    SELECT RACE,COUNT(USERID) AS TOTAL_VIEWERS_RACE
95    FROM BRIGHTLIGHT_TV_VIEWERSHIP
96    GROUP BY RACE;
```

↳ **Results**   ∿ Chart

	A RACE	# TOTAL_VIEWERS_RACE
1	white	1292
2	other	102
3	None	1057
4	black	4331
5	not_specified	10
6	coloured	1633
7	indian_asian	1575

11. Syntax to analysis the total views per channel

```
98    --TOTAL VIEWERS PER CHANNEL
99    SELECT CHANNEL2, COUNT(USERID) AS TOTAL_VIEWERS_CHANNEL
100   FROM BRIGHTLIGHT_TV_VIEWERSHIP
101   GROUP BY CHANNEL2;
102   |
```

↳ Results   ∿ Chart

A CHANNEL2	# TOTAL_VIEWERS_CHANNEL
1 Trace TV	952
2 Vuzu	111
3 SuperSport Live Events	24
4 ICC Cricket World Cup 2011	1465
5 Channel O	1050
6 E! Entertainment	367
7 Break in transmission	66
8 Sawsee	4
9 kykNET	45

12. Syntax to analyse duration (time spent) on each channel

```
104   ---TOTAL TIME SPENT WATCHING EACH CHANNEL
105   SELECT
106   CHANNEL2,
107   DATEADD( SECOND,
108   SUM (EXTRACT(HOUR FROM DURATION_2) * 3600 +
109       EXTRACT(MINUTE FROM DURATION_2) * 60 +
110       EXTRACT(SECOND FROM DURATION_2)),
111       TIME '00:00:00') AS TOTAL_TIME_WATCHED
112   FROM BRIGHTLIGHT_TV_VIEWERSHIP
113   WHERE DURATION_2 IS NOT NULL
114   GROUP BY CHANNEL2
115   ORDER BY TOTAL_TIME_WATCHED DESC
116   limit 10;
117
```

↳ Results   ∿ Chart

A CHANNEL2	⊙ TOTAL_TIME_WATCHED
1 Trace TV	23:55:27
2 Cartoon Network	22:15:17
3 CNN	19:46:39
4 SuperSport Blitz	18:40:46

13. Syntax to analyse viewers by age bucket

```
----VIWERS BY AGE BUCKET PER CHANNEL
SELECT
  COUNT(USERID) AS VIEWER_COUNT,
  CHANNEL2,
  CASE
    WHEN AGE = 0 THEN 'NOT_SPECIFIED'
    WHEN AGE BETWEEN 1 AND 3 THEN 'TODDLER'
    WHEN AGE BETWEEN 4 AND 5 THEN 'PRESCHOOLERS'
    WHEN AGE BETWEEN 6 AND 12 THEN 'CHILDREN'
    WHEN AGE BETWEEN 13 AND 19 THEN 'TEENAGER'
    WHEN AGE BETWEEN 20 AND 29 THEN 'YOUNG_ADULTS'
    WHEN AGE BETWEEN 30 AND 39 THEN 'EARLY_ADULTS'
    WHEN AGE BETWEEN 40 AND 50 THEN 'MIDDLE_AGE_ADULTS'
    WHEN AGE BETWEEN 51 AND 64 THEN 'ADULTS'
    ELSE 'SENIORS'
  END AS AGE_GROUP
FROM BRIGHTLIGHT_TV_VIEWERSHIP
GROUP BY CHANNEL2,AGE_GROUP
ORDER BY COUNT(USERID) DESC
LIMIT 10;
```

	# VIEWER_COUNT	A CHANNEL2	A AGE_GROUP
1	628	Supersport Live Events	EARLY_ADULTS
2	585	ICC Cricket World Cup 2011	EARLY_ADULTS
3	507	Supersport Live Events	YOUNG_ADULTS
4	448	Trace TV	YOUNG_ADULTS
5	436	ICC Cricket World Cup 2011	YOUNG_ADULTS
6	428	Channel O	YOUNG_ADULTS
7	355	Africa Magic	EARLY_ADULTS
8	347	Channel O	EARLY_ADULTS
9	341	Cartoon Network	YOUNG_ADULTS

14. Syntax to analyse number of viewers per channel by gender

```sql
--NUMBER OF VIEWERS PER CHINNEL BY GENDER
SELECT
  COUNT(USERID) AS VIEWER_COUNT,
  CHANNEL2,
  GENDER,
  CASE
    WHEN AGE = 0 THEN 'NOT_SPECIFIED'
    WHEN AGE BETWEEN 1 AND 3 THEN 'TODDLER'
    WHEN AGE BETWEEN 4 AND 5 THEN 'PRESCHOOLERS'
    WHEN AGE BETWEEN 6 AND 12 THEN 'CHILDREN'
    WHEN AGE BETWEEN 13 AND 19 THEN 'TEENAGER'
    WHEN AGE BETWEEN 20 AND 29 THEN 'YOUNG_ADULTS'
    WHEN AGE BETWEEN 30 AND 39 THEN 'EARLY_ADULTS'
    WHEN AGE BETWEEN 40 AND 50 THEN 'MIDDLE_AGE_ADULTS'
    WHEN AGE BETWEEN 51 AND 64 THEN 'ADULTS'
    ELSE 'SENIORS'
  END AS AGE_GROUP
FROM BRIGHTLIGHT_TV_VIEWERSHIP
GROUP BY AGE_GROUP,GENDER,CHANNEL2
ORDER BY COUNT(USERID)DESC
LIMIT 10:
```

	# VIEWER_COUNT	A CHANNEL2	A GENDER	A AGE_GROUP
1	599	Supersport Live Events	male	EARLY_ADULTS
2	555	ICC Cricket World Cup 2011	male	EARLY_ADULTS
3	478	Supersport Live Events	male	YOUNG_ADULTS
4	420	ICC Cricket World Cup 2011	male	YOUNG_ADULTS
5	398	Channel O	male	YOUNG_ADULTS
6	396	Trace TV	male	YOUNG_ADULTS
7	306	Cartoon Network	male	YOUNG_ADULTS
8	303	Channel O	male	EARLY_ADULTS
9	302	Supersport Live Events	male	MIDDLE_AGE_ADULTS

15. Syntax to analyse channels with most views

```
223     ---CHANNELS WITH MOST VIEWS
224     SELECT CHANNEL2, COUNT(USERID) AS Channel_views
225     FROM BRIGHTLIGHT_TV_VIEWERSHIP
226     GROUP BY channel2
227     ORDER BY Channel_views DESC
228     LIMIT 10;
229
```

↳ **Results**   ∿ Chart

A CHANNEL2	# CHANNEL_VIEWS
1 Supersport Live Events	1638
2 ICC Cricket World Cup 2011	1465
3 Channel O	1050
4 Trace TV	952
5 SuperSport Blitz	896
6 Africa Magic	859
7 Cartoon Network	793
8 Boomerang	714

16. Channel with more viewers by age bucket, gender and race

```
--CHANNELS WITH MORE VIEWS BY AGE BUCKET, GENDER AND RACE
SELECT CHANNEL2,GENDER,RACE,
  (CASE
     WHEN AGE = 0 THEN 'NOT_SPECIFIED'
     WHEN AGE BETWEEN 1 AND 3 THEN 'TODDLER'
     WHEN AGE BETWEEN 4 AND 5 THEN 'PRESCHOOLERS'
     WHEN AGE BETWEEN 6 AND 12 THEN 'CHILDREN'
     WHEN AGE BETWEEN 13 AND 19 THEN 'TEENAGER'
     WHEN AGE BETWEEN 20 AND 29 THEN 'YOUNG_ADULTS'
     WHEN AGE BETWEEN 30 AND 39 THEN 'EARLY_ADULTS'
     WHEN AGE BETWEEN 40 AND 50 THEN 'MIDDLE_AGE_ADULTS'
     WHEN AGE BETWEEN 51 AND 64 THEN 'ADULTS'
     ELSE 'SENIORS'
  END) AS AGE_GROUP,
COUNT(USERID) AS VIEWERS_BY_AGEBUCKET
FROM BRIGHTLIGHT_TV_VIEWERSHIP
GROUP BY CHANNEL2,RACE,GENDER,AGE_GROUP
ORDER BY VIEWERS_BY_AGEBUCKET DESC
LIMIT 10;
```

	CHANNEL2	GENDER	RACE	AGE_GROUP	VIEWERS_BY_AGEBUCKET
1	Channel O	male	black	YOUNG_ADULTS	295
2	ICC Cricket World	male	indian_asian	EARLY_ADULTS	250
3	ICC Cricket World	male	indian_asian	YOUNG_ADULTS	237
4	Africa Magic	male	black	EARLY_ADULTS	233
5	Channel O	male	black	EARLY_ADULTS	216
6	Trace TV	male	black	YOUNG_ADULTS	207
7	Supersport Live E	male	black	EARLY_ADULTS	177
8	Supersport Live E	male	black	YOUNG_ADULTS	175
9	Supersport Live E	male	coloured	EARLY_ADULTS	139

17. **Syntax to analyse top channel viewed most by different time bucket , age group,gender and race**

```
---MOST CHANEL VIEWED IN DIFFERENT TIME BY GENDER AND RACE
SELECT CHANNEL2,GENDER,RACE,
CASE
    WHEN CAST(RECORD AS TIME) BETWEEN TIME '02:00:00' AND TIME '05:59:59' THEN 'Graveyard_slots'
    WHEN CAST(RECORD AS TIME) BETWEEN TIME '06:00:00' AND TIME '11:59:59' THEN 'Morning'
    WHEN CAST(RECORD AS TIME) BETWEEN TIME '12:00:00' AND TIME '16:59:59' THEN 'Daytime'
    WHEN CAST(RECORD AS TIME) BETWEEN TIME '17:00:00' AND TIME '18:59:59' THEN 'Early_peak'
    WHEN CAST(RECORD AS TIME) BETWEEN TIME '19:00:00' AND TIME '21:59:59' THEN 'Prime_time'
    WHEN CAST(RECORD AS TIME) BETWEEN TIME '22:00:00' AND TIME '22:59:59' THEN 'Late_peak'
    ELSE 'Over_night'
 END AS TIME_BUCKET,
CASE
    WHEN AGE = 0 THEN 'NOT_SPECIFIED'
    WHEN AGE BETWEEN 1 AND 3 THEN 'TODDLER'
    WHEN AGE BETWEEN 4 AND 5 THEN 'PRESCHOOLERS'
    WHEN AGE BETWEEN 6 AND 12 THEN 'CHILDREN'
    WHEN AGE BETWEEN 13 AND 19 THEN 'TEENAGER'
    WHEN AGE BETWEEN 20 AND 29 THEN 'YOUNG_ADULTS'
    WHEN AGE BETWEEN 30 AND 39 THEN 'EARLY_ADULTS'
    WHEN AGE BETWEEN 40 AND 50 THEN 'MIDDLE_AGE_ADULTS'
    WHEN AGE BETWEEN 51 AND 64 THEN 'ADULTS'
    ELSE 'SENIORS'
 END AS AGE_GROUP,
COUNT(USERID) AS VIEWS_COUNT
```

```
FROM BRIGHTLIGHT_TV_VIEWERSHIP
GROUP BY CHANNEL2, GENDER,RACE,
 (CASE
    WHEN CAST(RECORD AS TIME) BETWEEN TIME '02:00:00' AND TIME '05:59:59' THEN 'Graveyard_slots'
    WHEN CAST(RECORD AS TIME) BETWEEN TIME '06:00:00' AND TIME '11:59:59' THEN 'Morning'
    WHEN CAST(RECORD AS TIME) BETWEEN TIME '12:00:00' AND TIME '16:59:59' THEN 'Daytime'
    WHEN CAST(RECORD AS TIME) BETWEEN TIME '17:00:00' AND TIME '18:59:59' THEN 'Early_peak'
    WHEN CAST(RECORD AS TIME) BETWEEN TIME '19:00:00' AND TIME '21:59:59' THEN 'Prime_time'
    WHEN CAST(RECORD AS TIME) BETWEEN TIME '22:00:00' AND TIME '22:59:59' THEN 'Late_peak'
    ELSE 'Over_night'
 END),
  CASE
    WHEN AGE = 0 THEN 'NOT_SPECIFIED'
    WHEN AGE BETWEEN 1 AND 3 THEN 'TODDLER'
    WHEN AGE BETWEEN 4 AND 5 THEN 'PRESCHOOLERS'
    WHEN AGE BETWEEN 6 AND 12 THEN 'CHILDREN'
    WHEN AGE BETWEEN 13 AND 19 THEN 'TEENAGER'
    WHEN AGE BETWEEN 20 AND 29 THEN 'YOUNG_ADULTS'
    WHEN AGE BETWEEN 30 AND 39 THEN 'EARLY_ADULTS'
    WHEN AGE BETWEEN 40 AND 50 THEN 'MIDDLE_AGE_ADULTS'
    WHEN AGE BETWEEN 51 AND 64 THEN 'ADULTS'
    ELSE 'SENIORS'

  END
  ORDER BY VIEWS_COUNT DESC
  LIMIT 10;
```

	CHANNEL2	GENDER	RACE	TIME_BUCKET	AGE_GROUP	VIEWS_COUNT
1	ICC Cricket World Cup 2011	male	indian_asian	Daytime	EARLY_ADULTS	144
2	ICC Cricket World Cup 2011	male	indian_asian	Daytime	YOUNG_ADULTS	134
3	Channel O	male	black	Morning	YOUNG_ADULTS	93
4	Africa Magic	male	black	Daytime	EARLY_ADULTS	70
5	ICC Cricket World Cup 2011	male	indian_asian	Morning	YOUNG_ADULTS	67
6	Channel O	male	black	Daytime	YOUNG_ADULTS	67
7	ICC Cricket World Cup 2011	male	indian_asian	Morning	EARLY_ADULTS	60
8	Supersport Live Events	male	indian_asian	Daytime	EARLY_ADULTS	55
9	Trace TV	male	black	Daytime	YOUNG_ADULTS	55

18. Syntax to analyse top channel with high views in different time bucket

```
--CHANNEL VIEWED MOST IN DIFFERENT TIME BUCKETS
SELECT CHANNEL2,
 CASE
    WHEN CAST(RECORD AS TIME) BETWEEN TIME '02:00:00' AND TIME '05:59:59' THEN 'Graveyard_slots'
    WHEN CAST(RECORD AS TIME) BETWEEN TIME '06:00:00' AND TIME '11:59:59' THEN 'Morning'
    WHEN CAST(RECORD AS TIME) BETWEEN TIME '12:00:00' AND TIME '16:59:59' THEN 'Daytime'
    WHEN CAST(RECORD AS TIME) BETWEEN TIME '17:00:00' AND TIME '18:59:59' THEN 'Early_peak'
    WHEN CAST(RECORD AS TIME) BETWEEN TIME '19:00:00' AND TIME '21:59:59' THEN 'Prime_time'
    WHEN CAST(RECORD AS TIME) BETWEEN TIME '22:00:00' AND TIME '22:59:59' THEN 'Late_peak'
    ELSE 'Over_night'
 END AS TIME_BUCKET,
COUNT(USERID) AS VIEWS_COUNT
FROM BRIGHTLIGHT_TV_VIEWERSHIP
GROUP BY CHANNEL2,
 (CASE
    WHEN CAST(RECORD AS TIME) BETWEEN TIME '02:00:00' AND TIME '05:59:59' THEN 'Graveyard_slots'
    WHEN CAST(RECORD AS TIME) BETWEEN TIME '06:00:00' AND TIME '11:59:59' THEN 'Morning'
    WHEN CAST(RECORD AS TIME) BETWEEN TIME '12:00:00' AND TIME '16:59:59' THEN 'Daytime'
    WHEN CAST(RECORD AS TIME) BETWEEN TIME '17:00:00' AND TIME '18:59:59' THEN 'Early_peak'
    WHEN CAST(RECORD AS TIME) BETWEEN TIME '19:00:00' AND TIME '21:59:59' THEN 'Prime_time'
    WHEN CAST(RECORD AS TIME) BETWEEN TIME '22:00:00' AND TIME '22:59:59' THEN 'Late_peak'
    ELSE 'Over_night'
 END)
 ORDER BY VIEWS_COUNT DESC
 LIMIT 10;
```

	CHANNEL2	TIME_BUCKET	VIEWS_COUNT
1	ICC Cricket World Cup 2011	Daytime	795
2	Supersport Live Events	Daytime	497
3	ICC Cricket World Cup 2011	Morning	389
4	Supersport Live Events	Morning	368
5	Supersport Live Events	Prime_time	323
6	Channel O	Daytime	280
7	Supersport Live Events	Early_peak	269
8	Channel O	Morning	266
9	Trace TV	Daytime	257