**Table Schema’s :**

**1** **F21\_S003\_4\_Content Table :**

describe F21\_S003\_4\_Content;

Name Null? Type

----------------------------------------- -------- ----------------------------

CONTENTID NOT NULL VARCHAR2(10)

EPISODES NOT NULL NUMBER(38)

GENRE NOT NULL VARCHAR2(30)

RELEASEDATE NOT NULL DATE

DURATION NOT NULL NUMBER(10)

ORIGIN NOT NULL VARCHAR2(30)

TITLE NOT NULL VARCHAR2(30)

**2 F21\_S003\_4\_Customers Table:**

describe F21\_S003\_4\_Customers;

Name Null? Type

----------------------------------------- -------- ----------------------------

CUSTOMERID NOT NULL VARCHAR2(10)

CONTACTNUMBER NUMBER(38)

COUNTRY VARCHAR2(30)

EMAIL NOT NULL VARCHAR2(30)

DATEOFBIRTH NOT NULL DATE

**3** **F21\_S003\_4\_Subscription Table:**

describe F21\_S003\_4\_Subscription;

Name Null? Type

----------------------------------------- -------- ----------------------------

SUBSCRIPTIONID NOT NULL VARCHAR2(10)

CUSTOMERID NOT NULL VARCHAR2(10)

SUBSCRIPTIONSTARTDATE DATE

**4** **F21\_S003\_4\_Devices Table :**

describe F21\_S003\_4\_Devices;

Name Null? Type

----------------------------------------- -------- ----------------------------

DEVICEID NOT NULL VARCHAR2(10)

DEVICETYPE VARCHAR2(10)

IPADDRESS VARCHAR2(15)

CUSTOMERID VARCHAR2(10)

**5** **F21\_S003\_4\_Stream Table:**

describe F21\_S003\_4\_Stream;

Name Null? Type

----------------------------------------- -------- ----------------------------

STREAMID NOT NULL VARCHAR2(10)

CONTENTID VARCHAR2(10)

CUSTOMERID VARCHAR2(10)

STREAMRATE NUMBER(2,1)

STREAMLENGTH NUMBER(10)

**6** **F21\_S003\_4\_LogInfo Table:**

describe F21\_S003\_4\_LogInfo;

Name Null? Type

----------------------------------------- -------- ----------------------------

LOGID NOT NULL NUMBER(38)

LOGGEDINTIME TIMESTAMP(6)

LOGGEDOUTTIME TIMESTAMP(6)

CUSTOMERID VARCHAR2(10)

DEVICEID VARCHAR2(10)

**7** **F21\_S003\_4\_Content\_Language Table:**

describe F21\_S003\_4\_Content\_Language;

Name Null? Type

----------------------------------------- -------- ----------------------------

CONTENT\_ID NOT NULL VARCHAR2(10)

LANGUAGE NOT NULL VARCHAR2(10)

**8 F21\_S003\_4\_Device\_DeviceName :**

describe F21\_S003\_4\_Device\_DeviceName;

Name Null? Type

----------------------------------------- -------- ----------------------------

DEVICE\_ID NOT NULL VARCHAR2(10)

DEVICENAME NOT NULL VARCHAR2(30)

**Tables Count After Insertion :**

**1 F21\_S003\_4\_Content count:**

select count(\*) from F21\_S003\_4\_Content;

COUNT(\*)

----------

30

**2 F21\_S003\_4\_Customers:**

select count(\*) from F21\_S003\_4\_Customers;

COUNT(\*)

----------

30

**3 F21\_S003\_4\_Subscription:**

select count(\*) from F21\_S003\_4\_Subscription;

COUNT(\*)

----------

30

4. **F21\_S003\_4\_Devices :**

COUNT(\*)

----------

43

select count(\*) from F21\_S003\_4\_Devices;

5. **F21\_S003\_4\_Stream:**

select count(\*) from F21\_S003\_4\_Stream;

COUNT(\*)

----------

200

6. **F21\_S003\_4\_LogInfo** :

select count(\*) from F21\_S003\_4\_LogInfo;

COUNT(\*)

----------

75

**7. F21\_S003\_4\_Content\_Language :**

select count(\*) from F21\_S003\_4\_Content\_Language;

COUNT(\*)

----------

30

8. **F21\_S003\_4\_Device\_DeviceName :**

select count(\*) from F21\_S003\_4\_Device\_DeviceName;

COUNT(\*)

----------

47

**Business Goals:**

**[Results have been provided in the result.txt file & queries in myDBQueries.sql ]**

1. To know the interest of customers, we shall generate a report of viewership of each Genre videos in a specific language, so that we can release similar content in that language with atleast 10 streams(Report order by most viewed Genre).

**Query:**

select con.Genre as Genre,lan.Language, Count(st.StreamId) as ViewershipRate

from F21\_S003\_4\_Content con

inner join

F21\_S003\_4\_Content\_Language lan

on lan.Content\_Id=con.ContentId

inner join F21\_S003\_4\_Stream st

on st.ContentId=con.ContentId

group by con.genre,lan.language

having Count(st.StreamId)>=10

order by ViewershipRate desc;

**Result:**

GENRE LANGUAGE VIEWERSHIPRATE

------------------------------ ---------- --------------

Crime English 34

Sci-fi Korean 18

Sci-fi Hindi 16

Crime Hindi 14

Action Spanish 14

Sci-fi English 12

Action English 12

Romance Spanish 10

Thriller English 10

9 rows selected.

2. Generate a report of most viewed(top 5) foreign content(user watching other than native originated content) in each country for the past year; to identify the interest of local customers towards different region content, to further release similar content.(top 5)

**Query :**

select Origin as ForeignCountry,Country as UserRegion,title as ForeignContent,count(st.streamId) as StreamCount from

F21\_S003\_4\_Stream st

inner join

F21\_S003\_4\_Content con

on st.ContentId=con.ContentId

inner join

F21\_S003\_4\_Customers cus

on cus.CustomerId=st.CustomerId

where

st.ContentId in

(

select c.ContentId from F21\_S003\_4\_Content c where cus.Country<>Origin

)

group by Country,Origin,Title

order by count(st.streamId) desc fetch first 5 rows only;

**Result:**

FOREIGNCOUNTRY USERREGION

------------------------------ ------------------------------

FOREIGNCONTENT STREAMCOUNT

------------------------------ -----------

UK USA

Sanctuary 8

Europe USA

Peaky Blinders 6

Europe USA

Lucifer 6

FOREIGNCOUNTRY USERREGION

------------------------------ ------------------------------

FOREIGNCONTENT STREAMCOUNT

------------------------------ -----------

USA India

New Girl 4

Europe USA

Invincible 4

**3. Generate yearly report of total customers, who didn’t renew the subscription with respect to each region/country; so that more strategies can be employed to increase the sales (Total & Each Region).**

**Query:**

select Country,count(sub.CustomerId) as InactiveRenewal from

F21\_S003\_4\_Subscription sub

inner join

F21\_S003\_4\_Customers cus

on sub.CustomerId=cus.customerId

where

sysDate-sub.SubscriptionStartDate>365

group by rollup(cus.Country) order by count(sub.CustomerId) desc;

**Result:**

COUNTRY INACTIVERENEWAL

------------------------------ ---------------

7

India 3

China 2

USA 1

Japan 1

4. Generate a report of Total views of each genre in each country; based on which we can know the interests of the subscribers

**Query:**

select Country,con.Genre as Genre,Count(st.StreamId) as TotalViews from

F21\_S003\_4\_Content con

inner join

F21\_S003\_4\_Stream st

on st.ContentId=con.ContentId

inner join

F21\_S003\_4\_Customers cus

on cus.CustomerId=st.CustomerId

group by con.genre,Country

order by TotalViews desc;

**Result :**

COUNTRY GENRE TOTALVIEWS

------------------------------ ------------------------------ ----------

USA Crime 21

USA Sci-fi 14

India Sci-fi 13

USA Action 12

UK Crime 11

China Sci-fi 10

USA Romance 9

India Crime 8

USA Comedy 8

UK Action 8

UK Sci-fi 7

COUNTRY GENRE TOTALVIEWS

------------------------------ ------------------------------ ----------

India Romance 7

USA Thriller 7

China Crime 6

Japan Sci-fi 6

China Action 5

Japan Crime 5

India Action 5

China Thriller 4

India Thriller 4

Europe Sci-fi 4

UK Comedy 3

COUNTRY GENRE TOTALVIEWS

------------------------------ ------------------------------ ----------

Europe Romance 3

Europe Crime 3

UK Thriller 3

Japan Action 3

UK Romance 2

China Romance 2

India Comedy 2

Europe Action 1

Japan Romance 1

Europe Thriller 1

Europe Comedy 1

COUNTRY GENRE TOTALVIEWS

------------------------------ ------------------------------ ----------

Japan Thriller 1

34 rows selected.

**5. To Generate a report of top viewed content(title) in each genre.**

**Query:**

with cte as(

select StreamCount,Genre,Title, rank() OVER (PARTITION BY genre ORDER BY StreamCount desc)as Rank from(

select

Distinct count(st.StreamId) over (partition by con.genre,con.Title)as StreamCount,

con.Genre as Genre,con.Title

from F21\_S003\_4\_Content con

inner join F21\_S003\_4\_Stream st

on st.ContentId=con.ContentId))

select Genre,Title,StreamCount from cte where rank=1 order by StreamCount desc ;

**Result:**

GENRE TITLE STREAMCOUNT

------------------------------ ------------------------------ -----------

Crime Lucifer 18

Sci-fi Sanctuary 18

Action Money Heist 14

Romance New Girl 10

Thriller Dexter 8

Comedy Friends 4

Comedy Big Bang Theory 4

7 rows selected.

**6 . To avoid servers getting hung, maintaining infrastructure scalability of servers for smooth video streaming and good quality; we will get the analysis of active devices logged per year**

**Query:**

select

Distinct extract(Year from LoggedInTime) as Year,

count(li.DeviceId) over (partition by extract(Year from LoggedInTime)) as LogCount

from

F21\_S003\_4\_LogInfo li

inner join

F21\_S003\_4\_Devices dev

on

li.DeviceId=dev.DeviceId;

**Result:**

YEAR LOGCOUNT

---------- ----------

2021 60

2016 6

2018 7

2015 2

7. We will get the report of which type of device the users are using to watch /subscribe. With this data we shall know user with what age is comfortable with which kind of device. (0-18 define as Teen, 19-45 as Adult,>45 as Senior Adults)

**Query:**

select DeviceType,AgeGroup,count(DeviceType) as DeviceCount from

(select dev.DeviceType

,case when trunc(months\_between(sysdate,cus.DateofBirth)/12) <=18

then

'Teen Age'

when trunc(months\_between(sysdate,cus.DateofBirth)/12) <=45 and trunc(months\_between(sysdate,cus.DateofBirth)/12) >18 then

'Adults'

when trunc(months\_between(sysdate,cus.DateofBirth)/12) >45 then

'Senior Adults' end as AgeGroup

from

F21\_S003\_4\_Devices dev

inner join

F21\_S003\_4\_Customers cus

on

dev.CustomerId=cus.CustomerId)

group by DeviceType,AgeGroup

order by DeviceCount desc;

**Result:**

DEVICETYPE AGEGROUP DEVICECOUNT

---------- ------------- -----------

Mobile Adults 15

Mobile Senior Adults 5

T.V Adults 5

Laptop Adults 4

Laptop Senior Adults 4

Mobile Teen Age 3

T.V Teen Age 3

T.V Senior Adults 2

Laptop Teen Age 2

9 rows selected.

8. Generate a report of Total views of each genre based on age groups; to know the tastes of different sections of people so that similar videos of their interest can be released.

**Query:**

select genre,AgeGroup,count(streamId) as ViewerShipRate from

(select str.streamId ,con.genre

,case when trunc(months\_between(sysdate,cus.DateofBirth)/12) <=18

then

'Teen Age'

when trunc(months\_between(sysdate,cus.DateofBirth)/12) <=45 and trunc(months\_between(sysdate,cus.DateofBirth)/12) >18 then

'Adults'

when trunc(months\_between(sysdate,cus.DateofBirth)/12) >45 then

'Senior Adults' end as AgeGroup

from

F21\_S003\_4\_Stream str

inner join

F21\_S003\_4\_Customers cus

on

str.CustomerId=cus.CustomerId

inner join

F21\_S003\_4\_Content con

on con.contentId = str.contentId

)

group by genre,AgeGroup

order by ViewerShipRate desc;

**Result:**

GENRE AGEGROUP VIEWERSHIPRATE

------------------------------ ------------- --------------

Crime Adults 36

Sci-fi Adults 35

Action Adults 24

Romance Adults 13

Thriller Adults 12

Crime Senior Adults 10

Sci-fi Teen Age 10

Sci-fi Senior Adults 9

Crime Teen Age 8

Action Teen Age 8

Romance Teen Age 7

GENRE AGEGROUP VIEWERSHIPRATE

------------------------------ ------------- --------------

Comedy Adults 7

Comedy Teen Age 4

Thriller Senior Adults 4

Thriller Teen Age 4

Romance Senior Adults 4

Comedy Senior Adults 3

Action Senior Adults 2

18 rows selected.

9. Generate a report of active users who uses more than 2 different devices; to further restrict number of devices based on the analysis.

**Query:**

select cus.CustomerId as CustomerId,Email as UserName,count(DeviceId) as DeviceCount

from F21\_S003\_4\_Devices dev

inner join

F21\_S003\_4\_Subscription sub

on sub.CustomerId=dev.customerId

inner join

F21\_S003\_4\_Customers cus

on cus.CustomerId=sub.CustomerId

where sysDate-sub.SubscriptionStartDate<365

group by cus.CustomerId,Email

having count(DeviceId) >2;

**Result:**

CUSTOMERID USERNAME DEVICECOUNT

---------- ------------------------------ -----------

CUST00018 SweitD0274@gmail.com 3

10. Generate a report of ratings of each genres, each movie in particular genre & total rating of all movies(avg of all user rating) based on user’s rating

**Query:**

select

genre,Title,avg(StreamRate) as AverageRating

from F21\_S003\_4\_Content con

inner join F21\_S003\_4\_Stream st

on st.ContentId=con.ContentId

group by rollup(con.genre,Title);

**Result :**

GENRE TITLE AVERAGERATING

------------------------------ ------------------------------ -------------

Crime Lucifer 3.41111111

Crime White Collar 3.23333333

Crime Jessica Jones 3.33571429

Crime Criminal Minds 3.25

Crime Peaky Blinders 3.3

Crime 3.33333333

Action Hanna 3.45

Action Chuck 3.85

Action Mirzapur 3.11666667

Action Invincible 3.15

Action Money Heist 3.46428571

GENRE TITLE AVERAGERATING

------------------------------ ------------------------------ -------------

Action 3.36764706

Comedy Pushpa 2.55

Comedy Friends 4.375

Comedy OmShanthiOm 3.7

Comedy Modern Family 3.3

Comedy Big Bang Theory 3.8

Comedy 3.7

Sci-fi Solos 3.55

Sci-fi Sanctuary 3.51666667

Sci-fi Star Trek 2.98333333

Sci-fi The Expanse 3.525

GENRE TITLE AVERAGERATING

------------------------------ ------------------------------ -------------

Sci-fi Alice in Wonderland 3.34

Sci-fi 3.43333333

Romance New Girl 3.47

Romance Love Sick 3.65

Romance Outlander 3.81666667

Romance Bridgerton 3.5

Romance Greys Anatomy 3.35

Romance 3.57916667

Thriller House 3.1

Thriller Psych 3.225

Thriller Dexter 3.8625

GENRE TITLE AVERAGERATING

------------------------------ ------------------------------ -------------

Thriller The Mentalist 4.5

Thriller The Family Man 3.4

Thriller 3.6

3.448

37 rows selected.

11. Generate a report of viewership rate of each language, genre and both language and genre

**Query:**

select con.Genre as Genre,lan.Language, Count(st.StreamId) as ViewershipRate

from F21\_S003\_4\_Content con

inner join

F21\_S003\_4\_Content\_Language lan

on lan.Content\_Id=con.ContentId

inner join F21\_S003\_4\_Stream st

on st.ContentId=con.ContentId

group by cube(con.genre,lan.language);

**Result:**

GENRE LANGUAGE VIEWERSHIPRATE

------------------------------ ---------- --------------

200

Hindi 50

Korean 36

English 74

Spanish 40

Crime 54

Crime Hindi 14

Crime Korean 6

Crime English 34

Action 34

Action Hindi 2

GENRE LANGUAGE VIEWERSHIPRATE

------------------------------ ---------- --------------

Action Korean 6

Action English 12

Action Spanish 14

Comedy 14

Comedy Hindi 6

Comedy Korean 2

Comedy English 2

Comedy Spanish 4

Sci-fi 54

Sci-fi Hindi 16

Sci-fi Korean 18

GENRE LANGUAGE VIEWERSHIPRATE

------------------------------ ---------- --------------

Sci-fi English 12

Sci-fi Spanish 8

Romance 24

Romance Hindi 8

Romance Korean 2

Romance English 4

Romance Spanish 10

Thriller 20

Thriller Hindi 4

Thriller Korean 2

Thriller English 10

GENRE LANGUAGE VIEWERSHIPRATE

------------------------------ ---------- --------------

Thriller Spanish 4

34 rows selected.

**Update Scripts:**

1. Update the Genre of movie Pushpa(Content Id : C\_00001) to Action

update F21\_S003\_4\_Content

set genre='Action'

where ContentId='C\_00001';

2.Update Language (Spanish) to French

update F21\_S003\_4\_Content\_Language

set Language='French'

where Language='Spanish';

3. Update origin (India) to Russia

update F21\_S003\_4\_Content

set Origin='Russia'

where Origin='India';

4. Update Country (India) to Russia

update F21\_S003\_4\_Customers

set Country='Russia'

where Country='India';

**Results of Above Update Queries:**

1 row updated.

5 rows updated.

6 rows updated.

6 rows updated.

**Results of the select Queries after updating is placed in ResultafterUpdate.txt file.**