**Questions**

**For all questions please include SQL, graphs/charts, filters you would give the stakeholders in order to have their questions answered**

1. How can I tell if someone is viewing shows that they shouldn’t have access to?

Research: I looked into Sling.tv on how user can subscribe to packages. There are base packages like Sling Orange, Sling Blue and Orange & Blue, and users can add more extras to their packages.

SELECT DISTINCT Users.id FROM Users

LEFT JOIN Session

ON Users.id = Session.users\_id

AND Users.entitlement = Session.entitlement

WHERE Users.active = 'FALSE'

AND Session.watched\_time > 0

AND Users.updated\_at < = session.date\_pulled

Assumptions:

1. Each user can be subscribed to multiple entitlement.

Who could be the stakeholders?

1. Team handling or working on entitlements.
2. Quality testing teams.

Graphs/Charts:

1. Pie chart to display the proportion of users viewing the shows with and without active status
2. List displaying all the user Id’s who are watching the show without access
3. How many customers viewed a show, I want to be able to filter by a schedule\_guid?

SELECT Viewership.schedule\_guid, Viewership.title, COUNT(Session.users\_id) AS 'Total Users Viewed'

FROM Viewership

LEFT JOIN Session

ON Viewership.asset\_id = Session.asset\_id

AND Viewership.date\_pulled = Session.date\_pulled

AND Viewership.incoming\_host = Session.incoming\_host

WHERE Session.watched\_time > 0

GROUP BY Viewership.schedule\_guid, Viewership.title

Assumptions:

1. Considering all the customers who viewed the show, without taking into account the time duration they watched the show.
2. Each show is aired only once in a day.
3. schedule\_guid is unique key in the table.

Who could be the stakeholders?

1. UX team - This information can be used to improve user experience by displaying the most viewed shows on the top.
2. Marketing team— Helps to display Ads or promotional events.

Graphs/Charts

1. Provide filter with a list of schedule\_guid. When a schedule guid is selected from the filter a line chart is displayed.
2. Line chart is displayed with the shows and count of total number users who watched each show. This helps to see check any immediate peaks or trends in viewers.
3. Display a heat map showing title and the count for the selected schedule\_guid.

1. Most viewed and most subscribed entitlements?

MOST VIEWED ENTITLEMENTS

SELECT TOP 10 entitlement, COUNT(users\_id)

FROM SESSION

WHERE watched\_time >0

GROUP BY entitlement

ORDER BY count(id) DESC

MOST SUBSCRIBED ENTITLEMENTS

SELECT TOP 10 entitlement, COUNT(id)

FROM Users

WHERE active = 'TRUE'

GROUP BY entitlement

ORDER BY count(id) DESC

Who could be the stakeholders?

1. Product & UX team – Helps planning new feature in the road map.
2. Marketing & Sales team – Helps them to market these shows and entitlements to new and existing user, and improve user engagement times.

Graphs/Charts

1. Display the top 10 most viewed and most subscribed entitlements in bar plot.
2. Any insight you think would be beneficial to me?
3. Missing values need to be addressed to know if the user is Active or not in User table
4. User information and subscription information must be in 2 different tables.
5. Table need to be normalized to reduce redundancy.
6. Asset related information like duration and title should be created in a separate table and only primary key column of asset table should be included in Viewership and Session tables.
7. Genre information can help us to know patterns about viewers’ interests. This information can be used to create new entitlements and also provide recommendation to old customers.