

Get ready to learn all about Set Actions! Please use these guided instructions to help you complete the exercises for our session today.

Please start by opening the **HOT Bachelor Starter Student** workbook, which is located in the **HOT Bachelor Session folder** on your VM desktop.

Problem A: Top N Scatterplot

1) Add Fields To Worksheet

Select **Top N Scatterplot** Worksheet

Add **Rating Score** To **Columns** and change the aggregation to **Average**

Add **US. Viewers (millions)** to **Rows** and change the aggregation to **Average** Add **Episode Title** to Detail

Add **TV Season** and **Lead** to Tooltip

2) Create First Set:

Right Click **Episode Title** On Your Data Pane

Create > Set > Top > By Field > Top 25 By Ratings Score Average

Name: **Top 25 Ratings Score Set By Episode**

Create Set ✕

Name: Episode Title Top 25 Ratings Score Set

General

Condition

Top

☐ None

☒ By field:

Top 25 byRating ScoreAverage

☐ By formula:

Top 10 by

Reset

OK

Cancel

3) Second Set

Right Click **Episode Title** On Your Data Pane

Create > Set > Top > By Field >

Bottom 25 US. Viewers (millions) by Average Rating

Name: **Bottom 25 Viewers Set By Episode**

Edit Set [Bottom 25 Viewers Set By Episode]

Name: Bottom 25 Viewers Set By Episode

General

Condition

Top

☐ None

☒ By field:

Bottom

25

by

US. Viewers (millions)

Average

☐ By formula:

Top

10

by

Reset

OK

Cancel

Apply

4) Combined Set

Right Click **Bottom 25 Viewers Set By Episode** In The Data Pane

Create Combined Set

Name: **Bottom 25 Viewers & Top 25 Ratings Set**


Shared Members In Both Sets


Sets: **Bottom 25 Viewers Set By Episode**


Create Set [Set 2] X


Name: Bottom 25 Viewers & Top 25 Ratings Set

How would you like to combine the two sets?

Sets: Bottom 25 Viewers Set By Episo...  Top 25 Ratings Score Set By Ep...

☒  All members in both sets

☐  Shared members in both sets

☐  "Bottom 25 Viewers Set B..." except shared members

☐  "Top 25 Ratings Score Set By Episode" except shared members

Separate members by ,

OK Cancel

add

5) Add Color

Add **Bottom 25 Viewers & Top 25 Ratings Set** To Color



6) **Question:** What 2 Episodes Were Both In The Bottom Amount Of Viewers & Top 25 Ratings Set?

Problem B: Dynamic Drill Down

Let's create a dynamic drill down to compare a given show's average ratings per season against the other show's overall average rating.

Open the **3. Dynamic Drill Down** sheet. Select the **Hierarchy** folder to access the necessary fields.

1) Create a set.

Select the down carrot on the **Show** field. Select **Create** → **Set**. Name this set **Shows Set Hierarchy**. You do not need to select anything to add to the set yet, so click **Ok**.

2) Create the hierarchy calculation.

On the data pane, click the down carrot next to the search bar. Select **Create Calculated Field**. Name the field **Hierarchy Level 2** and copy/paste the following:

```
IF [Shows Set Hierarchy] THEN STR([Season])
```

else 🌹

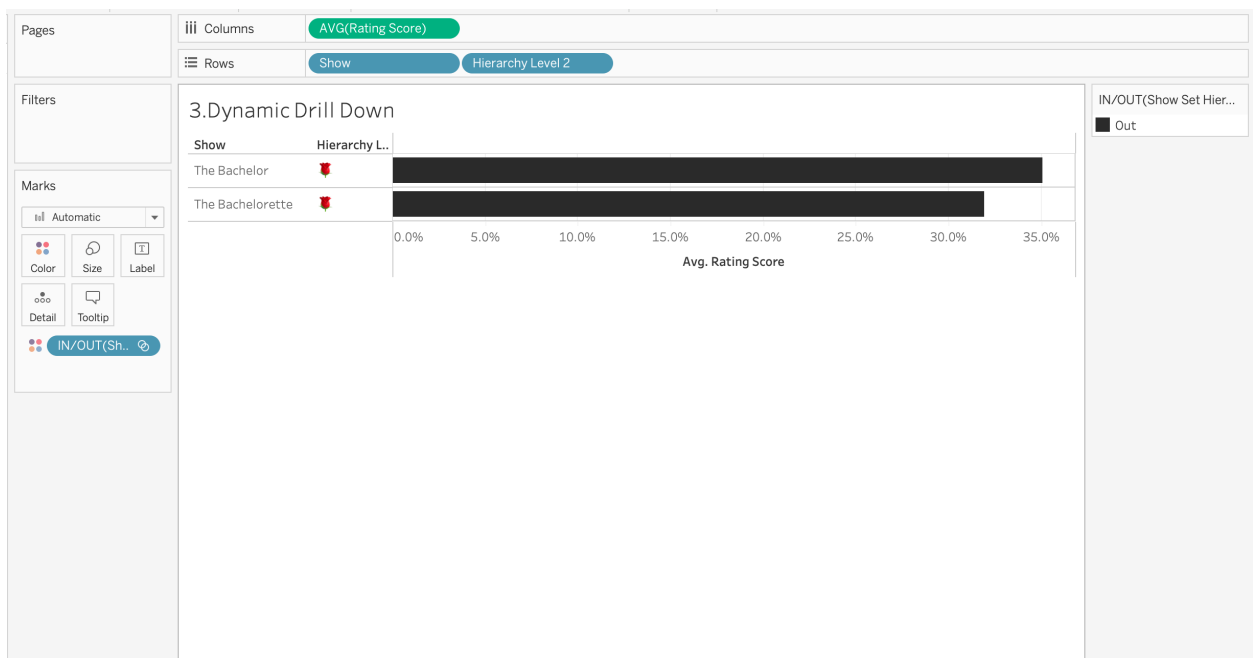
END

Click **Ok**.

3) Create the bar chart.

Drag and drop **AVG(Rating Score)** to Columns and **Show** and to Rows. Drag and drop **Hierarchy Level 2** to the right of **Show**.

Add the **Shows Set Hierarchy** to color.



4) Create the worksheet set action.

In the top menu, select **Worksheet** → **Actions...** In the bottom left corner of the Actions dialogue box, select **Add Action** → **Change Set Values**.

Name the new action **Hierarchy**. Select the **Source Sheet** → **3. Dynamic Drill Down**. Select **Run Action On** → **Select**.

For the **Target Set**, select the **Shows Set Hierarchy**. Under **Running the action will**, select **Assign values to set**. Finally, under **Clearing Selection will** select **Remove all values from set**.

Edit Set Action

×

Name

Hierarchy

Insert ▼

Source Sheets

3.Dynamic Drill Down▼

Run action on

☐ Hover

☒ Select

☐ Menu

☒ Single-select only

Target Set

Shows Set Hierarchy▼

Running the action will

☒ Assign values to set

☐ Add values to set

☐ Remove values from set

Clearing the selection will

☐ Keep set values

☐ Add all values to set

☒ Remove all values from set

Cancel

OK

5) Now it is time to test!

Select one of the shows to view each of its season's average rating score while maintaining the overall average rating score of the other show.

Which season of The Bachelorette had the highest average rating score? How did it compare to the overall average rating score of The Bachelor?

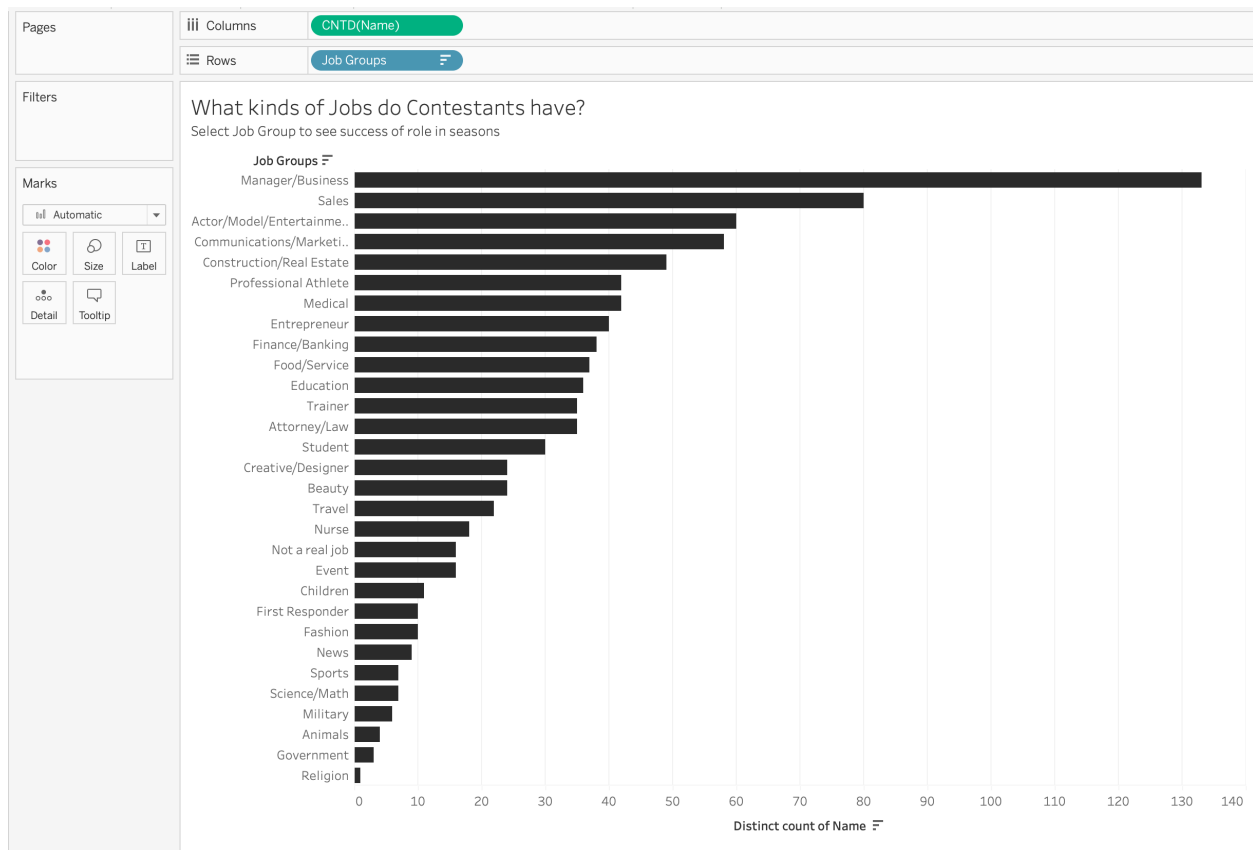
Problem C: Proportional Brushing

Build a dashboard that shows the weeks in which a selected career track was eliminated from the show. Which role tends to win?

Start on **4. Contestants per Job group** sheet.

1) Create the first bar chart.

Begin in the sheet **Contestants per Job Group**. Add **Job Groups** to Rows and **CNTD(Name)** to Columns. Click the sort button next to the **Distinct count of Name** on the X Axis to sort by the most common jobs.

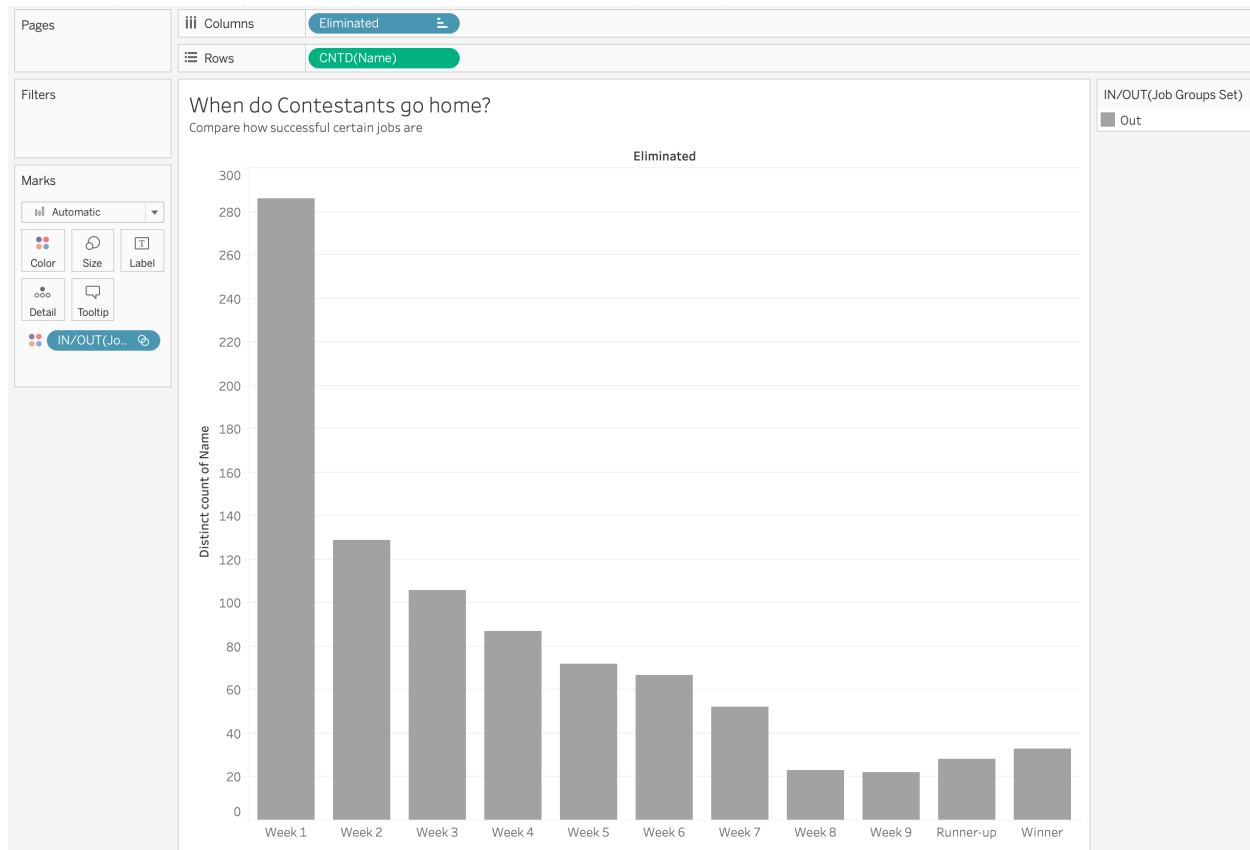


2) Create a new set.

Stay on the same sheet and select the down carrot on the **Job Groups** field. Select **Create** → **Set**. Name this set **Job Groups Set**. You do not need to select anything to add to the set yet, so click **Ok**. Lastly, add this new **Job Groups Set** to color.

3) Create the second chart.

Next, go to the **Week Eliminated** sheet. Create a vertical bar chart showing the number of eliminated contestants per week. Add **CNTD(Name)** to Rows and **Eliminated** to Columns. Looking at the X-axis of the bar chart, drag the **Runner Up** bar to the left of the **Winner** bar to display the correct timeline of episodes. Lastly, add the **Job Groups Set** to color.



Now we will create the set action!

4) Create a set action.

Select the **Proportional Brushing dashboard**. In the top menu, select **Dashboard** → **Actions...** In the bottom left corner of the Actions dialogue box, select **Add Action** → **Change Set Values**.

Name the new action **Proportional Brushing**. Select the **Source Sheet to run the action on** → **6. Proportional Brushing**. Check the box for the **Contestants by Job Group** sheet and select **Run Action On** → **Select**.

For the **Target Set**, select the **Job Groups Set**. Under **Running the action will**, select **Assign values to set**. Finally, under **Clearing Selection will** select **Remove all values from set**.

Edit Set Action

✕

Name

Proportional Brushing

Insert ▼

Source Sheets

6. Proportional Brushing

☒ 4. Contestants per Job Group

☐ 5. Week Eliminated

Run action on

☐ Hover

☒ Select

☐ Menu

☐ Single-select only

Target Set

Job Groups Set

Running the action will

☒ Assign values to set

☐ Add values to set

☐ Remove values from set

Clearing the selection will

☐ Keep set values

☐ Add all values to set

☒ Remove all values from set

Cancel

OK

5) Test out the action!

In the dashboard, on the **Contestants per Job Group** sheet, select **Sales**. You can now see when contestants that worked in Sales were eliminated each week in a season by showing their proportion through a set!

How many contestants in Sales made it as the Runner-Up?

[Bonus] Problem D : Brushing Breakout

What is the average age of contestants per season on any given week? We will use a set action to show the overall average age per week of a season and compare it to a selected Lead's season.

Start on **7. Lead Viewers** sheet.

1) Create the bar chart.

On the **Lead Viewers** sheet, add **Lead** to Rows and **SUM(US Viewers (millions))** to Columns. Add **AVG(Rating Percentage)** to color on the Marks card. Click the sort button next to **SUM(US Viewers (millions))** to view the top viewed leads.

2) Create the line chart.

Next, we'll create the line chart to show viewership over each week of a season. On the **Airdate Viewers** sheet, drag and drop **AVG(Age)** to Rows and **Eliminated** to Columns.

3) Create the set.

Stay on the same sheet you just made and select the down carrot on the **Lead** field. Select **Create** → **Set**. Name it **Leads Set**. You do not need to select anything to add to the set yet, so click **Ok**. Lastly, add this new **Leads Set** to color.

4) Create the set action on the dashboard.

Click on the **Brushing Breakout** dashboard. In the top menu, select **Dashboard** → **Actions...** In the bottom left corner of the Actions dialogue box, select **Add Action** → **Change Set Values**.

Name the new action **Lead Brush Breakout**. Select the **Source Sheet to run the action on** → **Brushing Breakout**. Check the box for the **Lead Viewers** sheet and select **Run Action On** → **Select**.

For the **Target Set**, select the **Lead Set**. Under **Running the action will**, select **Assign values to set**. Finally, under **Clearing Selection will** select **Remove all values from set**. Click **Ok**.

5) Test out the action!

Select the bar for Sean Lowe (Julianne's favorite bachelor because he chose Catherine from Seattle!)

How does Sean's contestants' average age per week compare to the rest of the collective Leads'?