



BUSS5100 Term Project Tutorial



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Lab Tutorial

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Covid 19 in LA County Jail Systems Data Analysis using SAP/SAC

Objectives

List what your objectives are. In this hands-on lab, you will learn how to:

- Import data into SAP
- Create and apply conditional formatting using threshold controls.
- Create a time series analysis.
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Prerequisites

- Group 4 file in SAP
- Access to SAP Analytics Cloud tenant.

Step 1: Locating the Story

Locating the Story.

1. Open a web browser and go to SAP Analytics Cloud (SAC): <https://higher-education.us10.sapanalytics.cloud/>
2. Log in SAP Analytics Cloud (SAC)
3. Open and continue your story from the previous lab.
 - a. You saved your Story as Group_4_Covid_Analysis_[your_school_account] in **your class** folder, for example,
at the path: CalStateLA > BUS5100 > Group4 > Group_4_Covid_AnalysisGroup4.

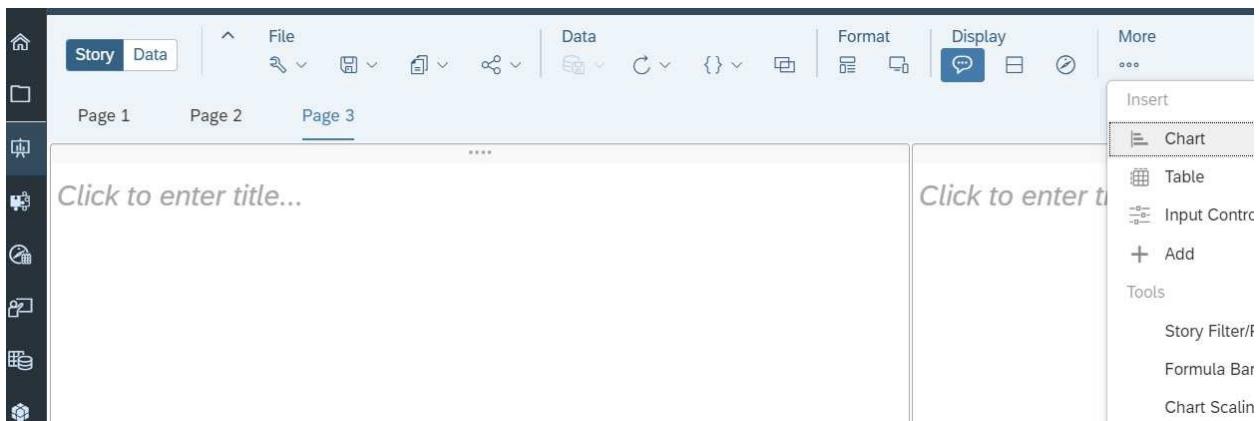
Step 2: Conditional Formatting

Explain what this step is for. This step is to ...

Code should be in the following format and indent:

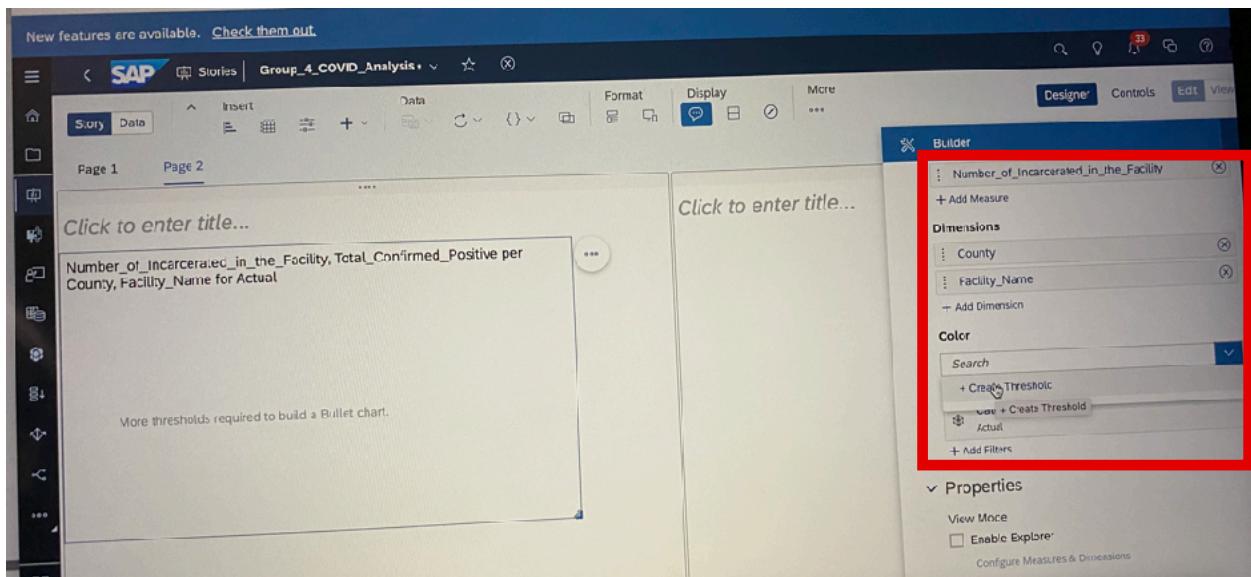
In SAC, Conditional Formatting is created using Thresholds. We wish to highlight Customers or Products at various Gross Margin Ratio levels to determine which are most profitable to Global Bike, so we will add some threshold formatting to our charts.

1. Make sure you select Edit instead of View at the right top corner of Story.
2. Add a New Responsive Page, which should show Page 3
3. Create a Bullet Chart of Customer (GEOID level) and Gross Margin Ratio in the first lane.
 - Go to menu: Insert > Chart



In the Builder panel of Figure in the next page, set Measures to Number of incarcerated in the facility and Dimension to County and Facility name.

- Then, select the chart: Indicator > Bullet
- d. In the above Builder panel, go to Color to add a threshold by clicking on + Create Threshold.



4. Complete the threshold settings as shown in the above Figure: Compare To = **Number Range**, a. You may choose whatever colors and shapes you would like to use for the ranges. You need to select the measure is Number of incarcerated in the facility.

Click +Add Range. Then, set Range with the following values.

(1) OK: 50 to Max (NOTE: leave the field box and don't type anything), Mid-Range: 45

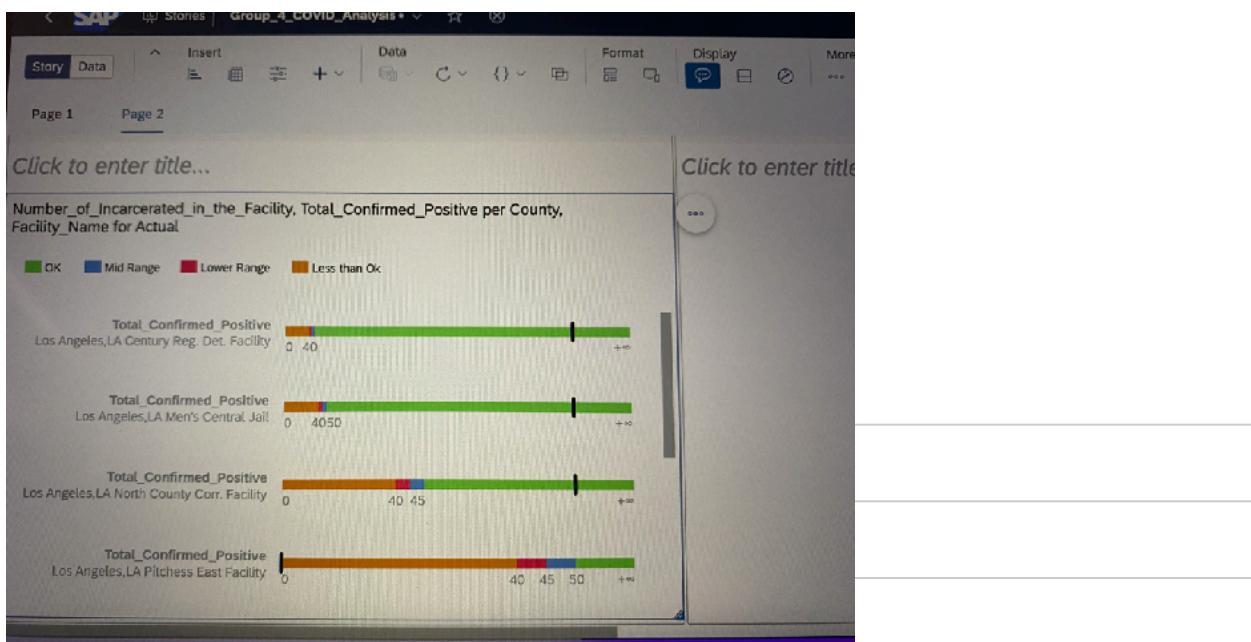
to 50, Lower-Range: 40 to 45, Less Than OK: 0 to 40. c. Apply.

The left screenshot shows a SAP interface with a 'Thresholds' dialog box open. The right screenshot shows a separate 'Thresholds' configuration window with four ranges defined:

Range	Color	Comparison Operator	Value 1	Value 2
OK	Green	\geq	50	< Max
Mid	Blue	\geq	45	< 50
Lower	Red	\geq	40	< 45
Less	Orange	\geq	0	< 40

Your bullet chart in the page 3 should now look similar to the one shown in Figure below.

NOTE: You may extend the chart if it only shows the part of the bar

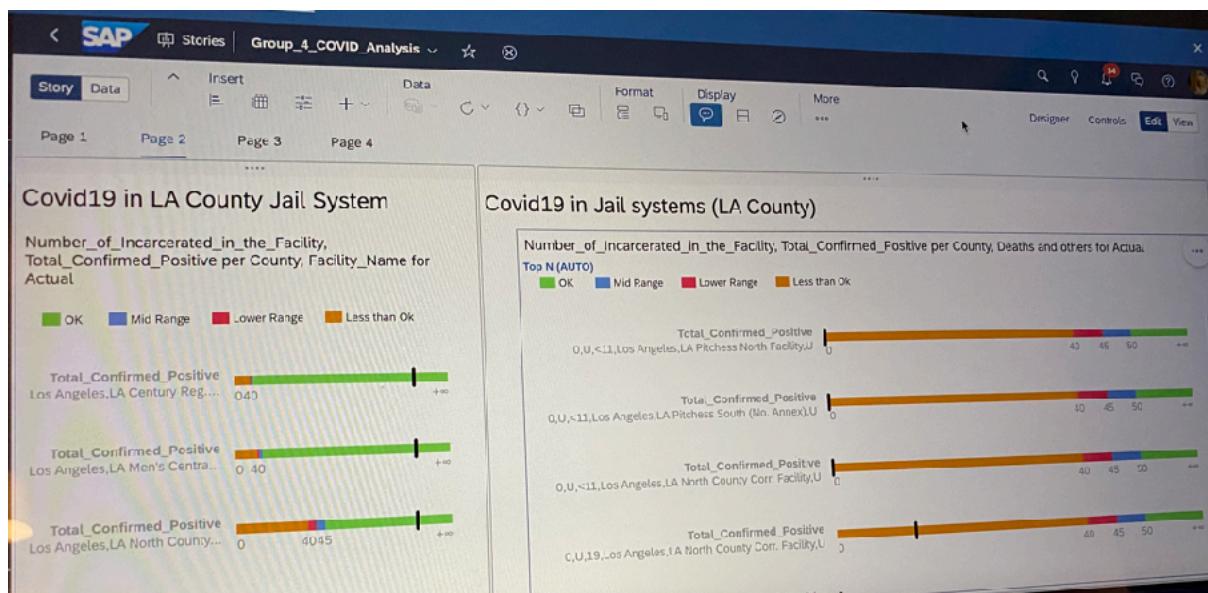


5. NOTE: Don't forget to save the story periodically. Copy the bullet chart to the next lane.

- A quick way to copy is to use the Actions dropdown on the chart – or right click the mouse button: copy > copy
- Click on the next lane and paste (CTRL-V)

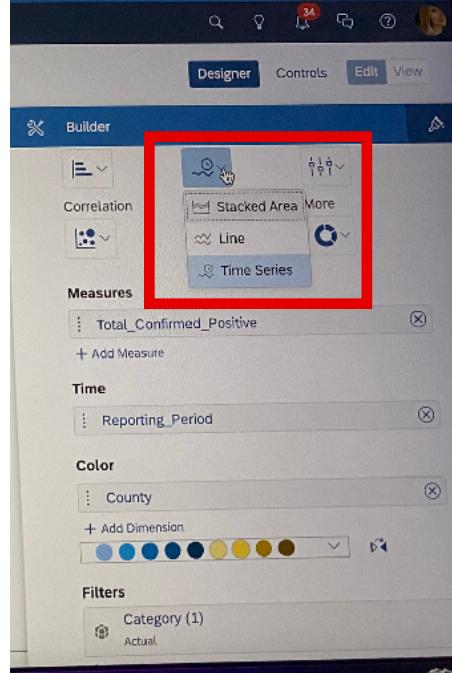
In the next lane, Change the dimension to county, facility name, deaths, estimated resolves, hospitalized, and total number tested. For Measures add total confirmed positive. For Color keep total confirmed cases.

- Enter “Covid19 in Jail System (LA County)” to the title field

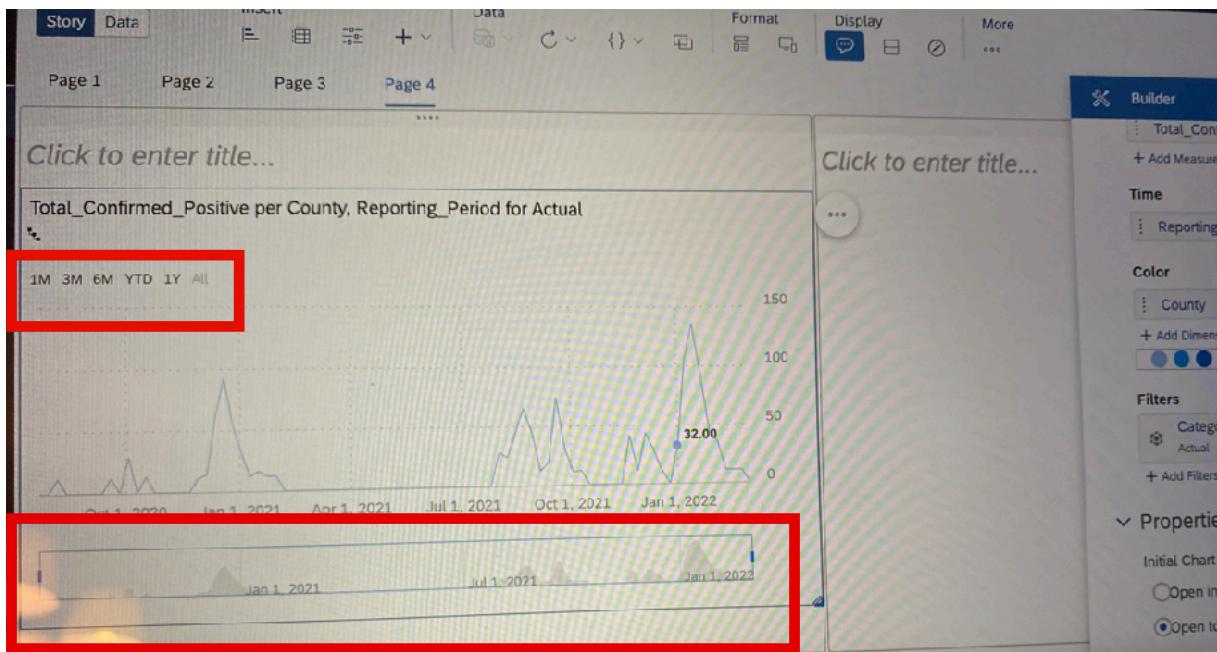


Step 3: Time Series

1. Create another Responsive Page in your Group 4 Covid Analysis Story.
2. Insert/Add a Chart at the main menu.
 - a. Add date as the dimension and Total Confirmed Positive as the measure.
3. Change the chart to a time series: Trend > Time Series.

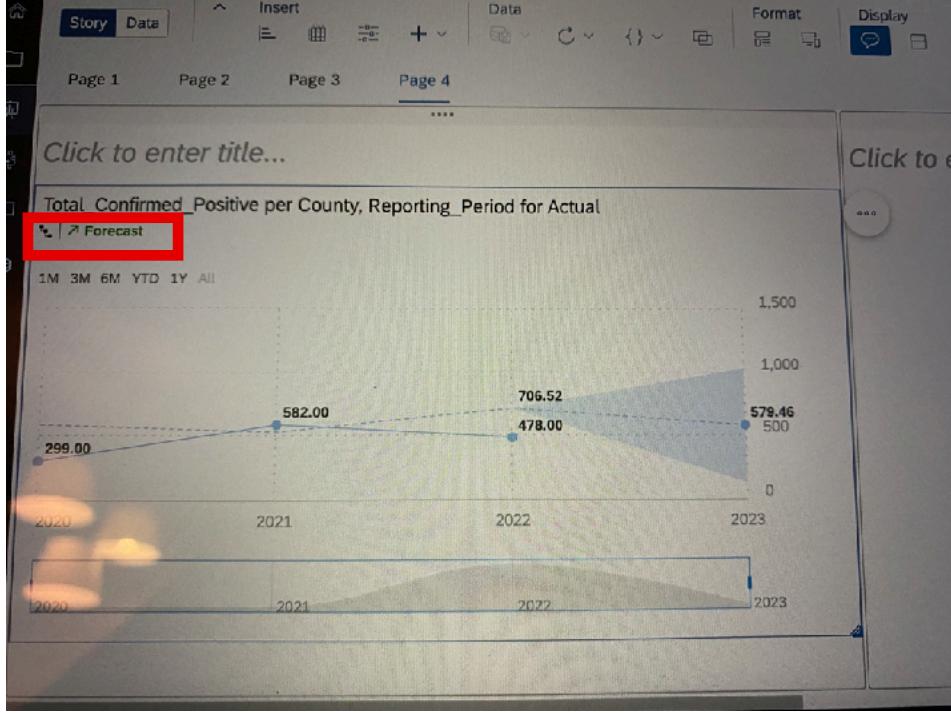


The chart shown here is for all time periods; that is all days, months, and years. You may play by changing the date range option listed at the top left of the chart: 1M, 3M, 6M, ..., All
You can adjust the time frame shown in the bottom of the chart by dragging the blue- lined date “box” underneath the visualization.

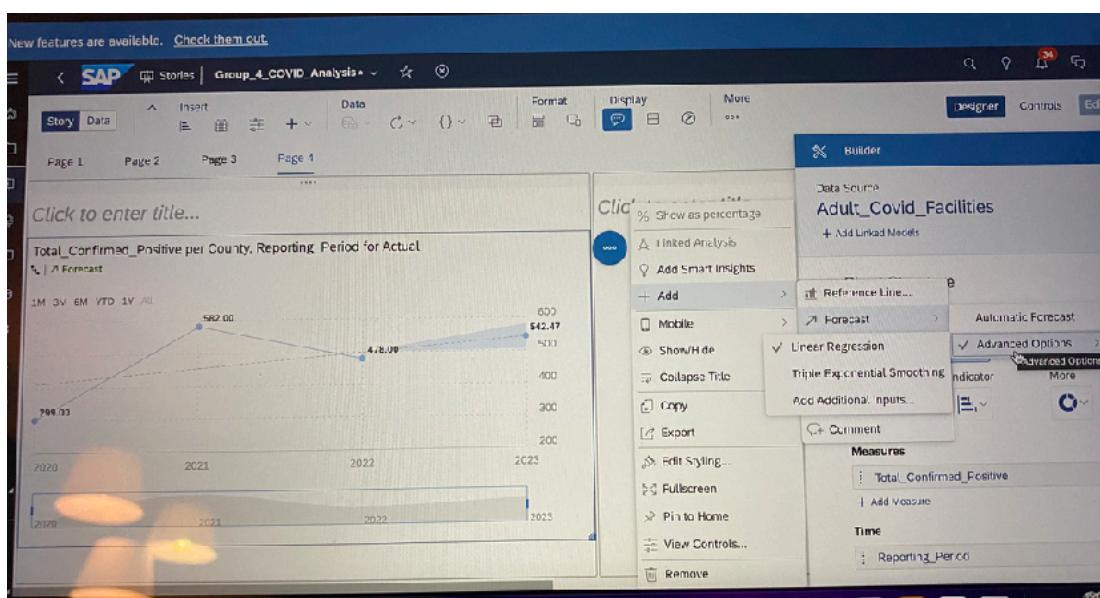


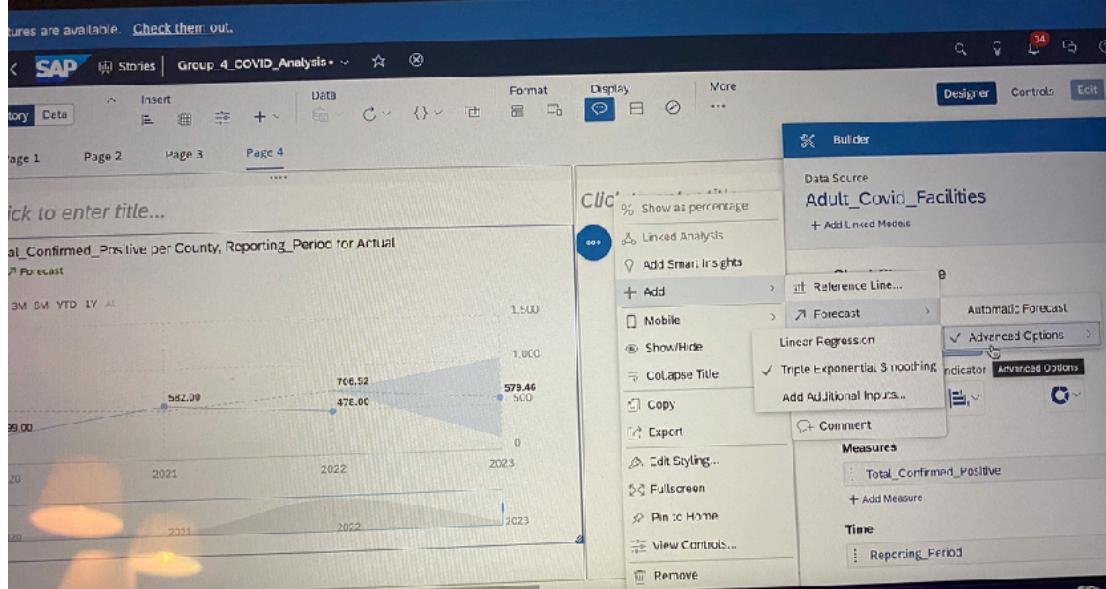
4. Click on the Add Forecast on the Actions menu of time series chart within the red square.

a. Choose add: Add > Automatic Forecast. It will take a minute but when the Forecast Loading completes, the word Forecast will appear at the top left of the chart.



5. Change the slider box at the bottom to see the prediction in detail.
6. Select the Add Forecast icon, Advanced Options-Linear Regression.
7. Again, using the Advanced Options of Add Forecast, choose Triple Exponential Smoothing.





8. Save the results of the Exponential Smoothing time series analysis. NOTE: Save it periodically.

References

1. URL of Data Source, <http://www.calstatela.edu>
2. URL of your Github

Updated by Jongwook Woo, 02/18/2022, 02/17/2021; Created by Nitin Kalé & Nancy Jones