



BUSS5100 Term Project Tutorial



Authors: Sandra Tenorio, Wendy Cano, Debbie Lemus, Maria Barriga Beltran, Haik Kosoyan,
Apichaya Chumsai Na Ayudhay

Instructor: Jongwook Woo

Date: 03/26/2022

Lab Tutorial

stenori3@calstatela.edu

hkosoya@calstatela.edu

mbarrig5@calstatela.edu

wcano2@calstatela.edu

dlemus22@calstatela.edu

achumsa@calstatela.edu

3/26/2022

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 Visualization
- Create Geo Map

- Create and apply conditional formatting using threshold controls.
- Create a time series analysis.

Prerequisites

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

Welcome to the Los Angeles County Correctly Facilities Covid Tracker Tutorial presented to you by SAP!

Let's begin by clicking on the modeler and then creating a file from a CSV or Excel File.

Name	Description	Created By	Created On	Changed By	Changed On
adultfacilitiesdatacovid19_310221 ...▼ / Group 4 folder		Haik Kosoyan	Mar 16, 2022 2...	Haik Kosoyan	Mar 16, 20...
hkosoyan ...▼ / hkosoyan		Haik Kosoyan	Feb 26, 2022 1...	Haik Kosoyan	Feb 26, 20...

Use First Rows as Column Headers and upload our data file!

Welcome to the Modeler

Prepare your raw data using a structured view and get started with your scenario analysis. [Learn More](#)

Import Data From File

Select Source File: adult-facilities-data-covid-19_3.10.22 - adult-facil...

⚠️ Leave the browser tab open and don't refresh while the data loads. We'll let you know when it's done.

Use first row as column headers

CSV Delimiter: Auto-detect

Import Cancel

Recent Files (3)

Name	Description	Created By	Created On	Changed By	Changed On
adultfacilitiesdatacovid19_310221		Haik Kosoyan	Mar 16, 2022 2...	Haik Kosoyan	Mar 16, 20...
hkosoyan		Haik Kosoyan	Feb 26, 2022 1...	Haik Kosoyan	Feb 26, 20...

Check to see if the data is clean. Then add a Geo-Enrichment with the coordinates.

Create Transform

Geo Enrich by: confirmed_Positive

Coordinates

Rows: 680

Type: Measure

Number Format: 1,587,370.50

Label: Type a label

Scale: None specified

Decimal Places: None specified

Create Mode

Create a story. Then add a geo map.

At least one measure is required to build a chart.

Location (Total_Confirmed_Positive)

Palmdale

Santa Clarita

Simi Valley

Oxnard Thousand Oaks

Rancho Cucamonga Ontario Pomona

Santa Monica

Long Beach

Anaheim

Santa Ana

Coronado

LEGENDS

Esri, HERE, NPS | Esri, HERE, Ga

60km
30mi

More

Insert

Table

Input Control

+ Add

Tools

Story Filter/Prompt

Formula Bar

Chart Scaling

Conditional Formatting

Smart Discovery

Value Lock Management

Set/unset read only for selected cells.

Cell References and Formulas

Format

Layouts

Device Preview

Geo Map

Section

Image

Shape

Text

Header

Clock

Comment Widget

RSS Reader

Web Page

Value Driver Tree

Planning Trigger

R Visualization

Symbol

OK

Click to enter title...

Total_Confirmed_Positive per Facility_Name for Actual

LA Century Reg. Det. Facility LA Men's Central Jail LA North County Corr. Facility

LA Pitchess East Facility LA Pitchess North Facility LA Pitchess South (No. Annex)

LA Pitchess North Facility LA Twin Towers Corr. Facility

487.00

341.00

0.00

0.00

0.00

0.00

428.00

Click to enter subtitle...

Location (Total_Confirmed_Positive)

More

Insert

Table

Input Control

+ Add

Tools

Story Filter/Prompt

Formula Bar

Chart Scaling

Conditional Formatting

Smart Discovery

Value Lock Management

Set/unset read only for selected cells.

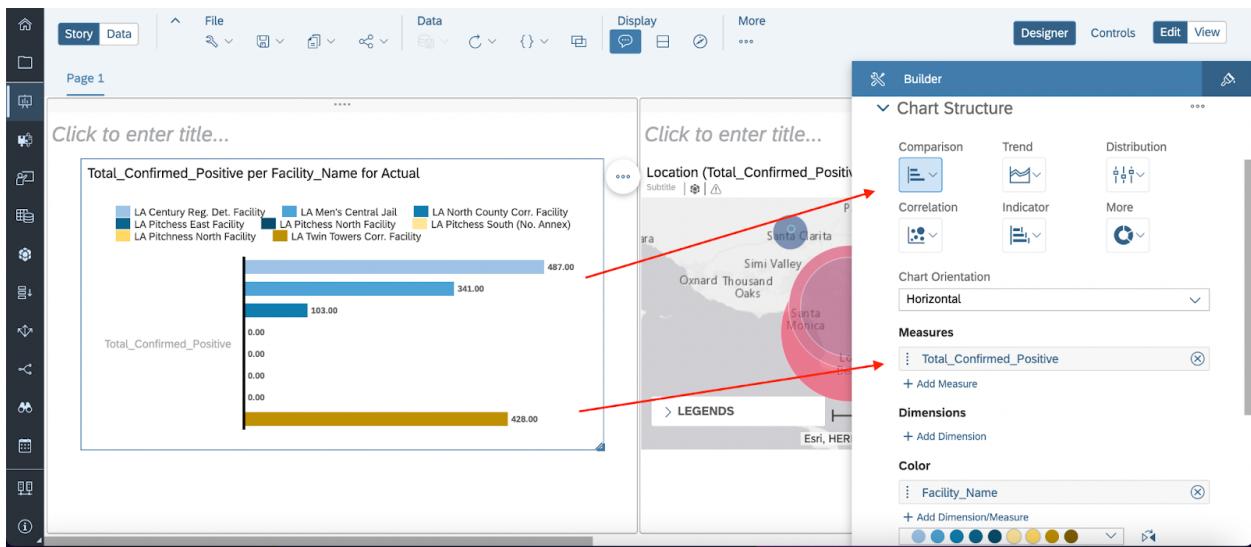
Cell References and Formulas

Format

Layouts

Device Preview

OK



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)

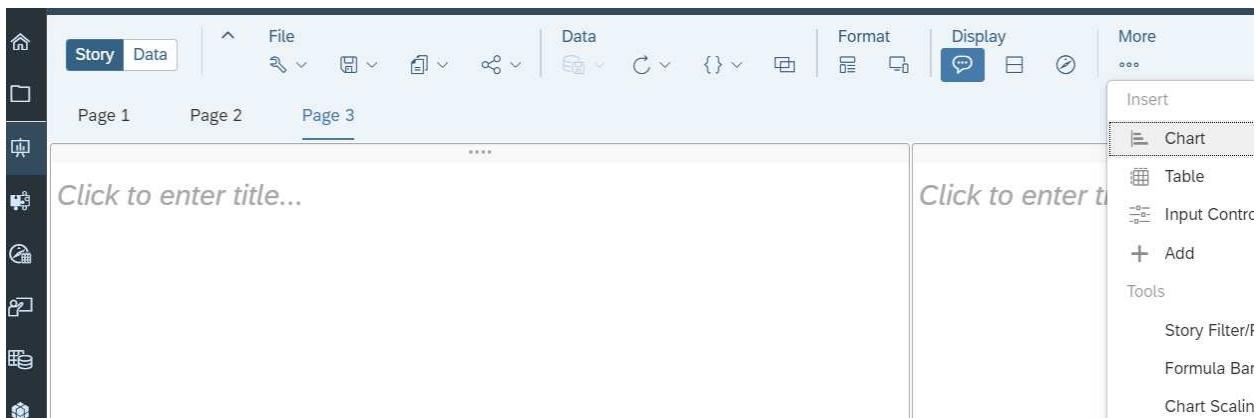
3. Open and continue your story from the previous lab.
 - a. You saved your Story as Group_4_Covid_Analysis_[your_school_account] in **your class folder**, for example,
 at the path: CalStateLA > BUS5100 > Group4 > Group_4_Covid_AnalysisGroup4.

Step 2: Conditional Formatting

In SAC, Conditional Formatting is created using Thresholds. We wish to highlight Covid Cases confirmed in each facility and the amount of inmates incarcerated, so we will add some threshold formatting to our charts.

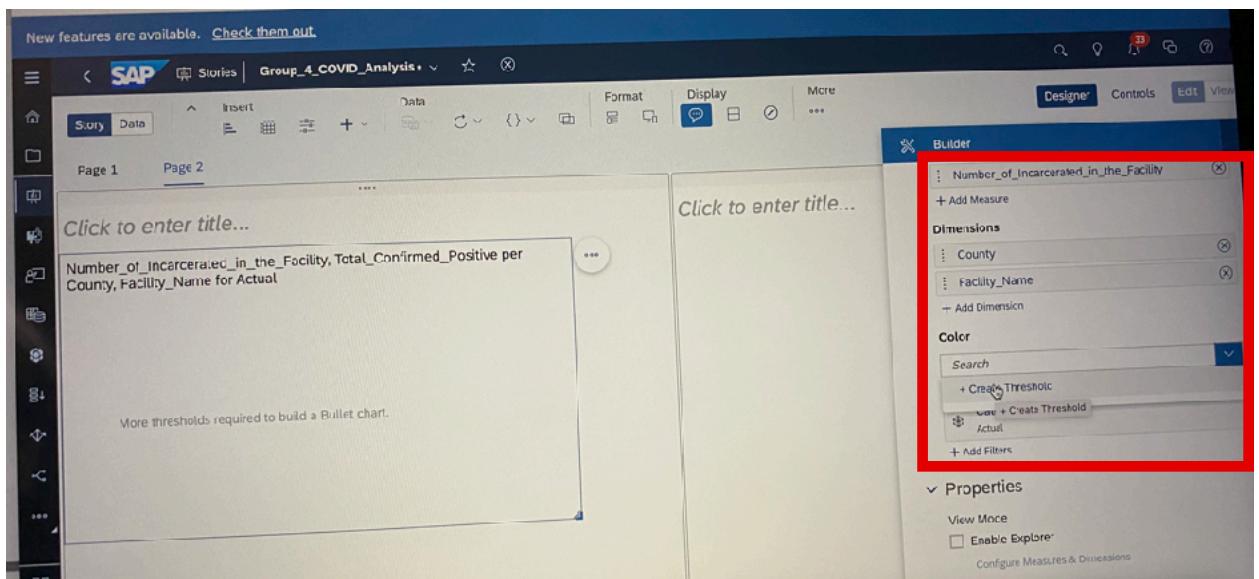
1. Make sure you select Edit instead of View at the right top corner of Story.

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.

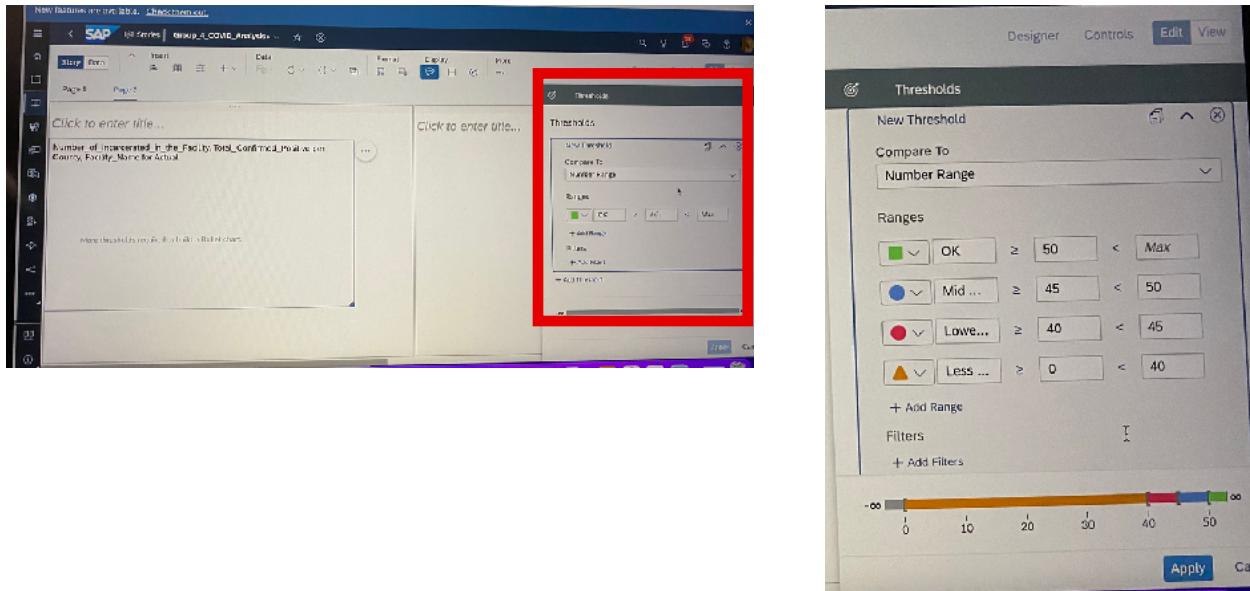


4. Complete the threshold settings as shown in the above Figure: Compare To = Number Range, a. You may choose whatever colors and shapes you would like to use for the ranges. You need to select the measure is Number of incarcerated in the facility.

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

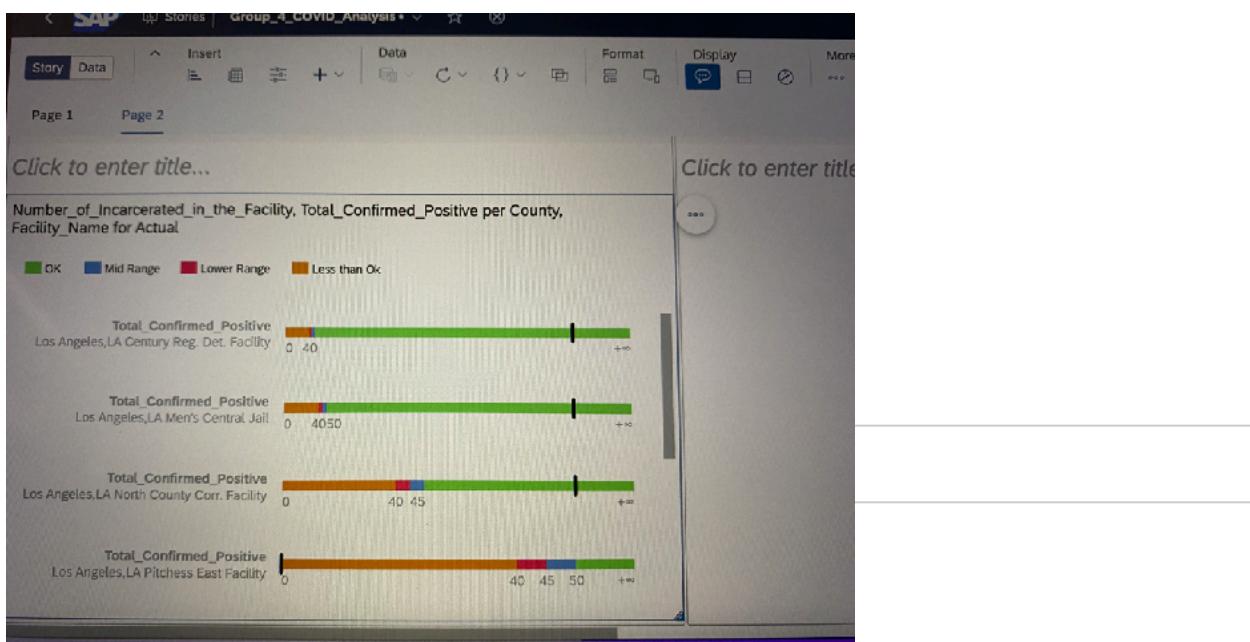
(1) OK: 50 to Max (NOTE: leave the field box and don't type anything), Mid-Range: 45

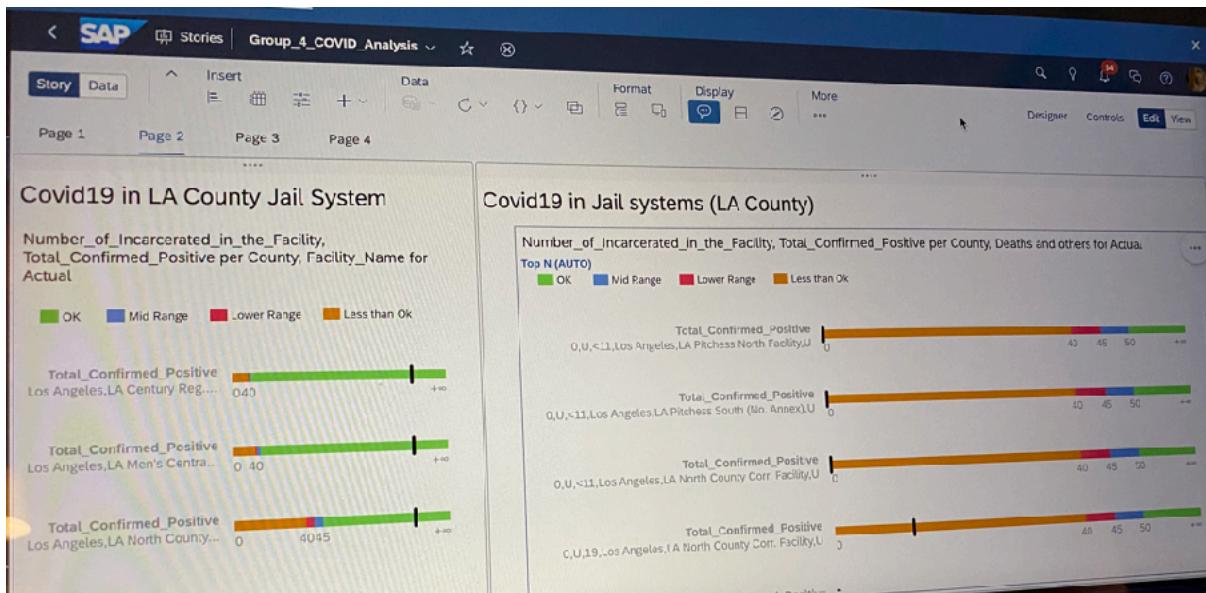
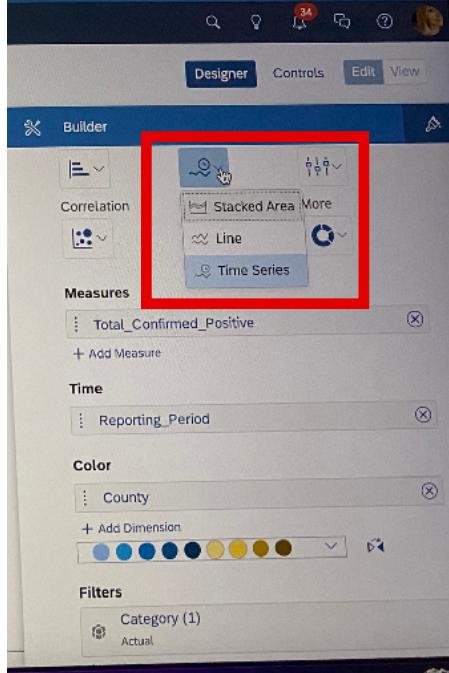
to 50, Lower-Range: 40 to 45, Less Than OK: 0 to 40. c. Apply.



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.

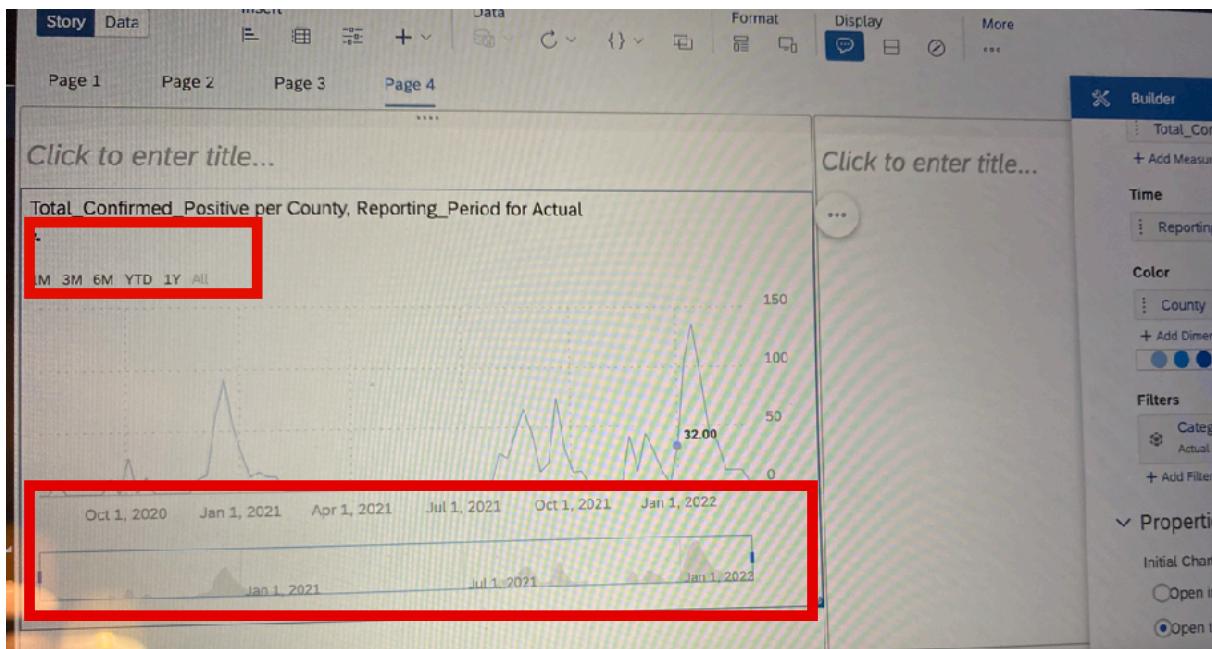
- A quick way to copy is to use the Actions dropdown on the chart – or right click the mouse button: copy > copy
- Click on the next lane and paste (CTRL-V)

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.

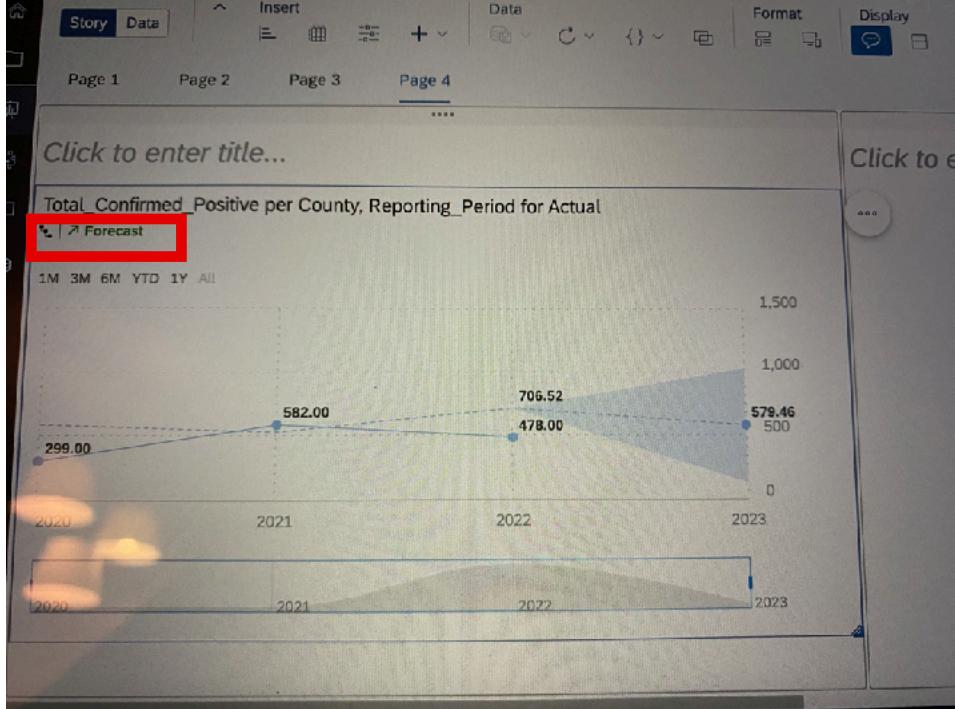
- Enter “Covid19 in Jail System (LA County)” to the title field

Step 3: Time Series

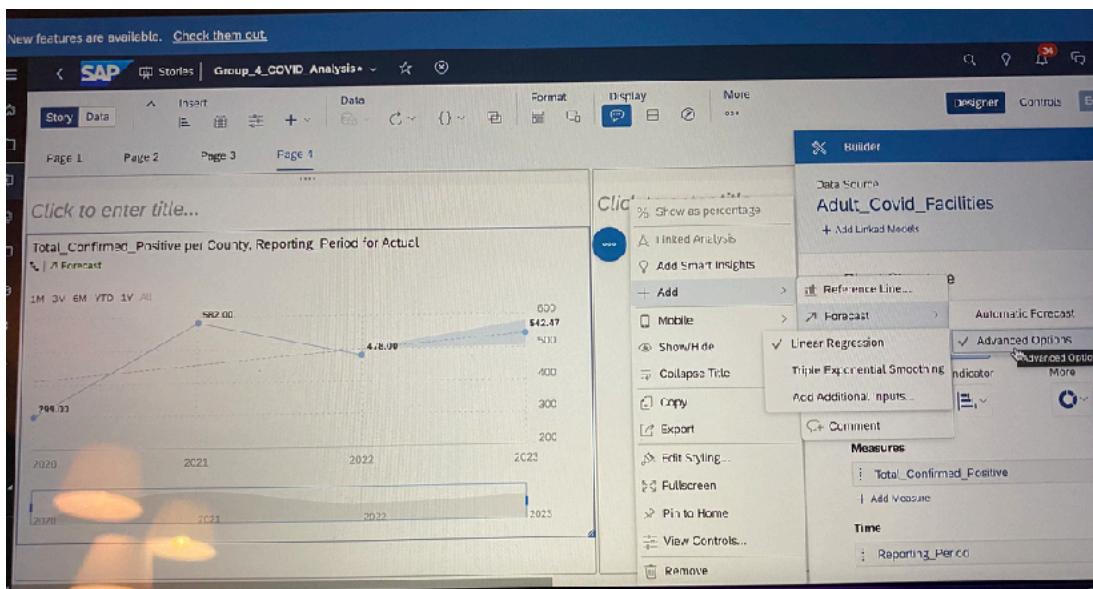
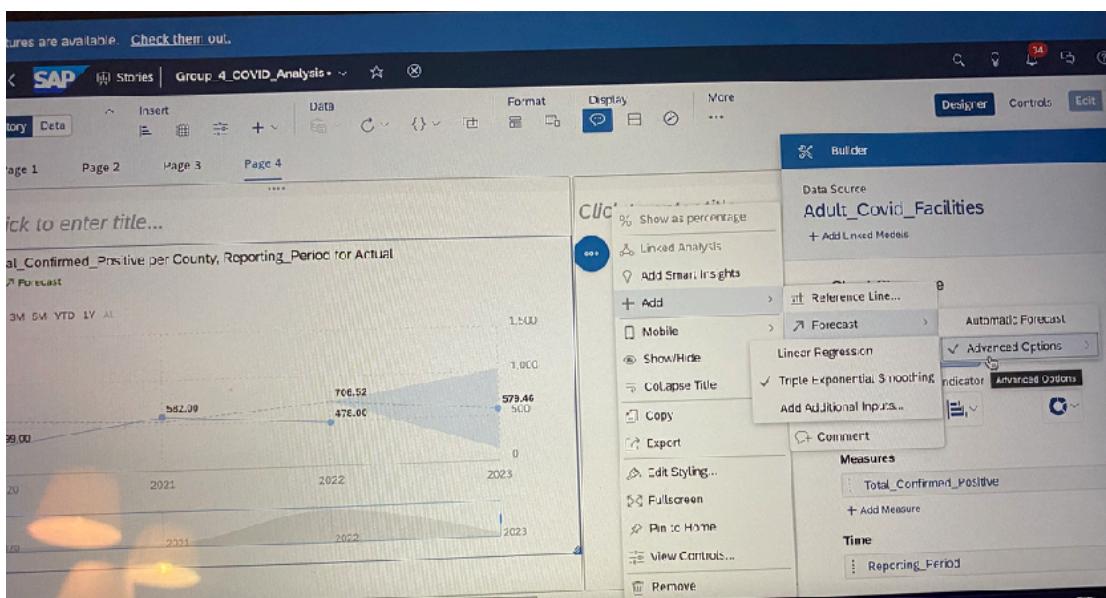
1. Create another Responsive Page in your Group 4 Covid Analysis Story.
2. Insert/Add a Chart at the main menu.
a. Add date as the dimension and Total Confirmed Positive as the measure.
3. Change the chart to a time series: Trend > Time Series. The chart shown here is for all time periods; that is all 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. <https://github.com/Apichaya01/Group4.git>