Google Workspace

Company challenge: Formulating forecasts

In the following activity, you will help Thomas Omar and the On the Rise team solve their business challenge using Google Sheets.

Task 1

The Leadership team wants to quickly and securely collect sales data from new On the Rise stores in the Asia Pacific region (AsiaPac). They share a Google Sheet named “On the Rise AsiaPac sales" and ask that you create a Google Form that will automatically populate data into this spreadsheet.

Complete the following steps:

1. Open On the Rise AsiaPac sales and make a copy in your My Drive.
2. From the **Tools** menu, select **Create a form**.
3. Add the form **Title**, On the Rise AsiaPac sales, and a **Form description**, Actual sales for On the Rise bakeries in the AsiaPac region.
4. Add each of the seven questions from the spreadsheet. Use the dropdown menu to select the type of question and mark each as required. Enter the potential responses as shown in Column D of the spreadsheet.
5. Select **Customize Theme**, change the theme color to #ffbf00, and **Add**.
6. Select **Preview** to view the form.
7. Notice you now have two tabs in the On the Rise AsiaPac sales Google Sheet:
   - **Sheet1** contains the questions and responses
   - A **Form Responses** tab that contains the questions

Task 2

Now that you have set up the Google Form “On the Rise AsiaPac sales,” the Leadership team asks that you share the form with several of the On the Rise bakers to get their feedback. As well, they want you to ensure the form gathers the data correctly.

Over the coming days, you frequently open the Google Sheet and check the Responses tab. You see this tab populate with new data as the bakers complete the Google Form.

Complete the following steps:

1. From the “On the Rise AsiaPac sales” form select **Send**. Here is where you would send the form to your intended recipients, the On the Rise bakers. For this training however, you will play the part of the bakers and submit several responses yourself on their behalf.
2. Check the box to **Automatically collect respondent's email address**, then close the Send form dialog.
3. Select **Preview** to view the form and enter the following data for five different cities in AsiaPac. You will be submitting five responses in total:

City	Hyderabad
Country	Pakistan
Region	AsiaPac
Month	May
Cinnamon buns	10377
Rye bread	10363
Pastries	9255

City	Bangalore
Country	India
Region	AsiaPac
Month	May
Cinnamon buns	10347
Rye bread	9280
Pastries	9084

City	Sanur
Country	Indonesia
Region	AsiaPac
Month	May
Cinnamon buns	3794
Rye bread	4161
Pastries	3513

City	Singapore
Country	Singapore
Region	AsiaPac
Month	May
Cinnamon buns	11834
Rye bread	11583
Pastries	11612

City	Seoul
Country	South Korea
Region	AsiaPac
Month	May
Cinnamon buns	8813
Rye bread	8471
Pastries	9243

4. Review the **Form Responses** tab in your "On the Rise AsiaPac sales" Google Sheet. Was the form information added to the spreadsheet? Is the data in the correct columns? Is your email address being captured?

Task 3

A few weeks pass and the Google Sheet grows larger and more complex as many respondents complete the Google Form. The Leadership Team determines they have enough data for a meaningful analysis. They send you a new, up-to-date version of the Google Sheet, which they have formatted and renamed "Sheets advanced topics APAC forecast report_Challengefinal."

The Leadership Team would like you to help them analyze the actual and forecasted sales of product in AsiaPac to uncover which products are selling the best and which locations are doing well, and which may need some additional support. You believe that a pivot table will provide great insight.

Complete the following steps:

1. Open Sheets advanced topics APAC forecast report_Challengefinal and make a copy in your My Drive.
2. From the **Data** menu, select **Pivot table**.
3. In the **Create pivot table** dialog box, choose your data range, A1:G505.
4. To show the pivot table in this sheet, at **Insert to** choose **Existing sheet** and select the cell in which you want the pivot table to appear. Select **Create**.

   To determine the actual sales by product in each region

5. For Rows, **Add** City. Choose Ascending **Order**, **Sort by** City**,** check the **Show totals** box.
6. For Columns, **Add** Product. Choose Ascending **Order**, **Sort by** Product**,** check the **Show totals** box.
7. For Values, **Add** Sales - Actual. **Summarize by** SUM and **Show as** Default.

   What city has the greatest sales? What city has the lowest sales?

   Now let's look at forecasted sales by product in each region.

8. Create a second pivot table but when adding Values, choose Sales - Forecast instead of Sales - Actual. **Summarize by** SUM and **Show as** Default as before.

   What city has the greatest sales forecast? What city has the lowest sales forecast?

   Tip: Instead of creating a new pivot table you could have added the forecast values to the existing table by adding a second Values row for Sales - Forecast. To format the pivot table correctly with multiple values, ensure **Values as** is set to Rows (not Columns).

Task 4

The Leadership Team wants to provide Thomas Omar with a more visual representation of the data. They know he will want to see the numbers, but they also want to provide him a way to review the data that will give him insight into the data at a glance. They ask you for your thoughts and suggestions. Understanding the team's desire to have both the numbers and a visual, you propose creating a bar chart alongside the pivot table.

Complete the following steps:

1. Use the "Sheets advanced topics APAC forecast report_Challengefinal" you have been working with.

   Create charts for actual sales

2. Highlight the area of the Actual sales pivot table from 'City' to the last 'Grand Total' for 'Tokyo.'
3. From the toolbar menu select **Insert**, and then **Chart**. Move the chart next to the Actual sales pivot table.
4. Select the three ellipses in the chart area and then select **Edit chart**.
5. For **Chart type**, select **Column chart**.
6. For Series, remove **Grand Total.**
7. Customize the chart. For **Chart & axis titles** select **Chart title** and tor **Title text** enter 'OTR actual sales by product by city.'
8. Create another chart by highlighting the same area of the pivot table; from 'City' to the last 'Grand Total' for 'Tokyo.'
9. From the toolbar menu select **Insert**, and then **Chart**. Move the chart next to the 'OTR actual sales by product by city' chart.
10. Select the three ellipses in the chart area and then select **Edit chart**.
11. For **Chart type**, select **Column chart**.
12. For Series, remove **Cinnamon bun, Pastries,** and **Rye bread.**
13. Customize the chart. For **Chart & axis titles** select **Chart title** and tor **Title text** enter 'OTR actual sales by city.'

Create charts for forecast sales

14. Highlight the area of the Forecast sales pivot table from 'City' to the last 'Grand Total' for 'Tokyo.'
15. From the toolbar menu select **Insert**, and then **Chart**. Move the chart next to the Forecast sales pivot table.
16. Select the three ellipses in the chart area and then select **Edit chart**.
17. For **Chart type**, select **Column chart**.
18. For Series, remove **Grand Total.**
19. Customize the chart. For **Chart & axis titles** select **Chart title** and tor **Title text** enter 'OTR forecast sales by product by city.'
20. Create another chart by highlighting the same area of the pivot table; from 'City' to the last 'Grand Total' for 'Tokyo.'
21. From the toolbar menu select **Insert**, and then **Chart**. Move the chart next to the 'OTR forecast sales by product by city' chart.
22. Select the three ellipses in the chart area and then select **Edit chart.**
23. For **Chart type**, select **Column chart**.
24. For Series, remove **Cinnamon bun, Pastries,** and **Rye bread.**
25. Customize the chart. For **Chart & axis titles** select **Chart title** and tor **Title text** enter 'OTR forecast sales by city.'
26. Review the charts. What city has the greatest actual sales? What city has the lowest sales forecast? Is it easier to identify this information using the charts or the pivot tables?
27. You have the four charts inserted next to the pivot tables, but want to make a few changes so the charts look more professional. You double click on one of the charts, select the three ellipses in the chart area, and then select, **Edit chart**.
28. Use the Chart Editor to customize the chart style. You change the font and background color. You also drag the chart to resize it.
29. You do the same for the other charts.

Task 5

The Leadership Team is pleased with your work and want to share the 'Actual sales by city' chart' with Thomas Omar. The team asks you to publish the Google Sheet to the Web and to share it with Thomas via Gmail.

Complete the following steps:

1. Use the "Sheets advanced topics APAC forecast report_Challengefinal" you have been working with.
2. Select the three ellipses in the upper right corner of the chart and choose **Publish chart.**
3. To publish the chart only, select the chart name from the drop down menu on the Publish to the web card.
4. To allow viewers to see values and additional chart information, select **Interactive.**
5. To allow for dynamic updates, expand **Published content & settings** and check to

enable **Automatically republish when changes are made**.

6. Click **Publish**, then **Ok** to confirm that you wish to publish the chart.
7. Copy the link provided and open it in a new browser tab to see your chart.
8. Optionally, share the link via email with a colleague and ask them to test the link.

Case wrap up

It's Monday morning and Thomas Omar opens his laptop and is delighted to see that the Leadership Team has shared the information from the "Sheets advanced topics APAC forecast report_Challengefinal" spreadsheet by publishing the Actual sales by city chart to the web. Thomas is surprised at the scale of the data and reflects that Google Forms has been very effective as a means to collect information from his globally dispersed teams. As he scans the Google Sheet, he notes that the pivot table and bar chart really assist him in quickly making business determinations. He can immediately see that most of the On the Rise stores are doing well. Thomas understands the lower sales in the small tourist town of Sanur, but was surprised at the lower volume in Shanghai, Seoul, and Kuala Lumpur. He believes those locations could use some additional support. He takes some personal notes and sends a few emails to his team in those three stores. Thomas finishes his day by sending another email to the Leadership Team, thanking them for their work and requesting they do the same for the stores in On the Rise's other global locations.