Deploying Solutions using Apps and Template Apps

Lab Time: 40 minutes

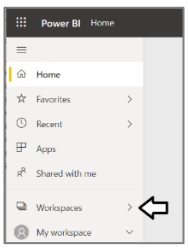
Lab Folder: C:\Student\Modules\03_AppWorkspaces\Lab

Lab Overview: In the first exercise, you will create and populate the **Wingtip Sales** app workspace by import a report and dataset from **Wingtip Sales Analysis.pbix**. If you already created the **Wingtip Sales** app workspace in an earlier lab and populated it with content in an earlier lab, you can skip Exercise 1 and begin with Exercise 2 where you will public the Wingtip Sales app workspace as an organization app. In Exercise 3, you will work through the process of creating and testing a Power BI template app.

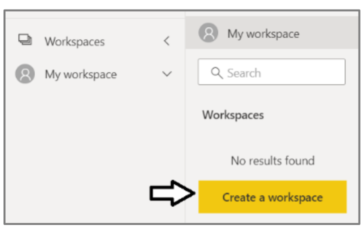
Exercise 1: Create an App Workspaces and Add Content

In this exercise, you will create a new app workspace named **Wingtip Sales** and then you will import a new dataset and report from **Wingtip Sales Analysis.pbix**. If you already created and populated the **Wingtip Sales** app workspace in an earlier lab, you can skip this exercise and skip ahead to Exercise 2.

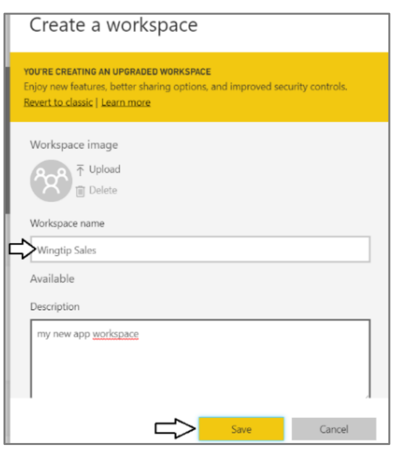
1. Log into the Power BI Service with your new organizational account.
   a) Navigate the Power BI portal at https://app.powerbi.com and if prompted, log in using your new organizational account.
2. Create a new app workspace named **Wingtip Sales**.
   a) Click the **Workspace** flyout menu in the left navigation.



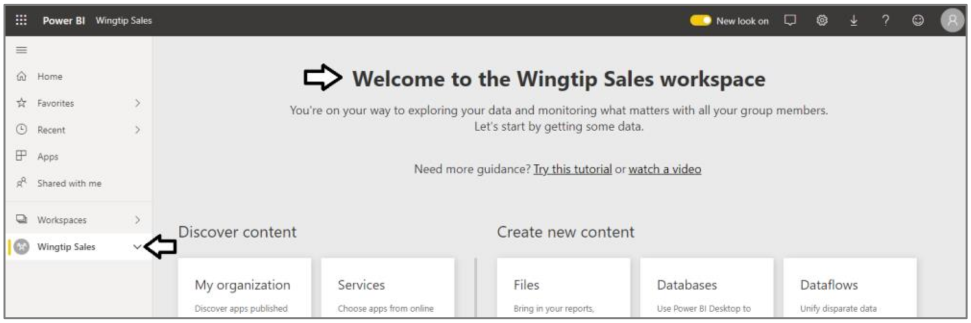
   b) Click the **Create app workspace** button to display the **Create an app workspace** dialog.



   c) In the **Create an app workspace** pane, enter a workspace name of **Wingtip Sales**.
   d) Click the **Save** button to create the new app workspace named **Wingtip Sales**.

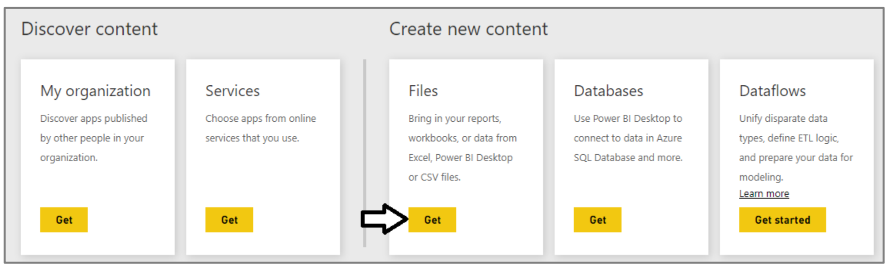


e) When you click **Save**, the Power BI service should create the new app workspace and then switch your current Power BI session to be running within the context of this new app workspace.



You have now created an app workspace which will provide the foundation for publishing and managing the Power BI datasets, reports and dashboards used by a custom solution.

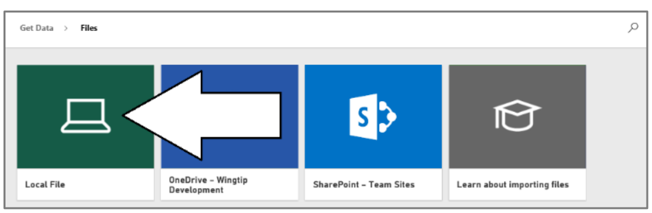
3. Navigate to the **Wingtip Sales** app workspace that you created in the previous exercise. This workspace should currently display the standard Welcome page because it does not yet contain any datasets, reports or dashboards.



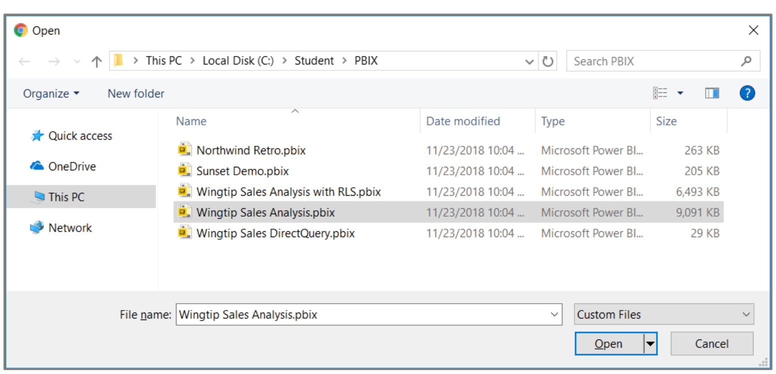
4. Import the **Wingtip Sales Analysis.pbix** project into the **Wingtip Sales** app workspace.

a) On the Welcome page, click the **Get** button in the **Files** section.

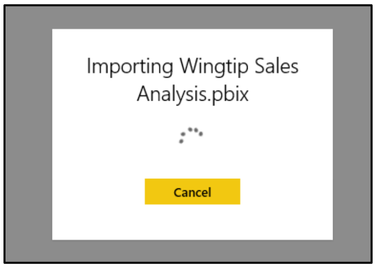
b) On the **Get Data > Files** page, click the **Local File** button to display the Windows **Open** file dialog.



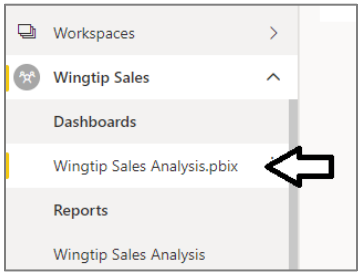
c) In the Windows **Open** file dialog, select the project file at **c:\Student\PBIX\Wingtip Sales Analysis.pbix** and click **Open**.



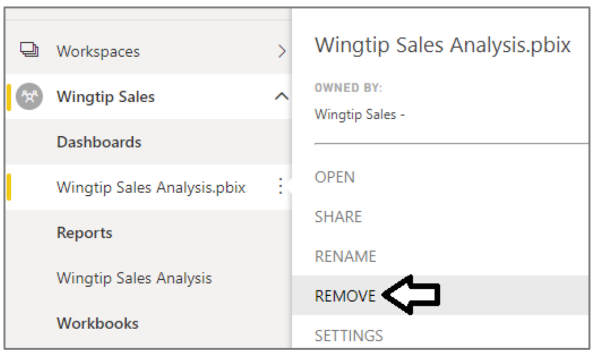
d) Wait while the Power BI service uploads the PBIX files and imports its assets into the **Wingtip Sales** app workspace



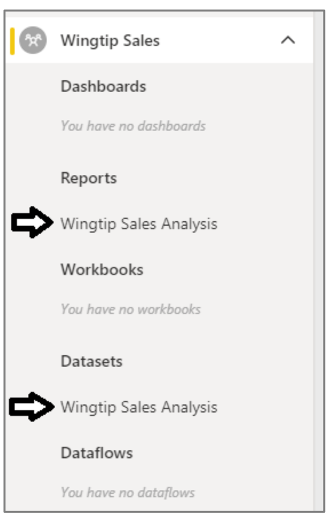
e) Check to see if the PBIX upload process has created a new dashboard named **Wingtip Sales Analysis.pbix**.



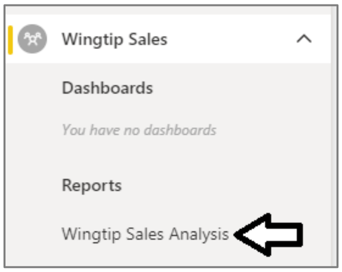
f) If it exists, delete the dashboard named **Wingtip Sales Analysis.pbix**.



g) Now, you should only see a dataset and report in the left nav menu which are both named **Wingtip Sales Analysis**.

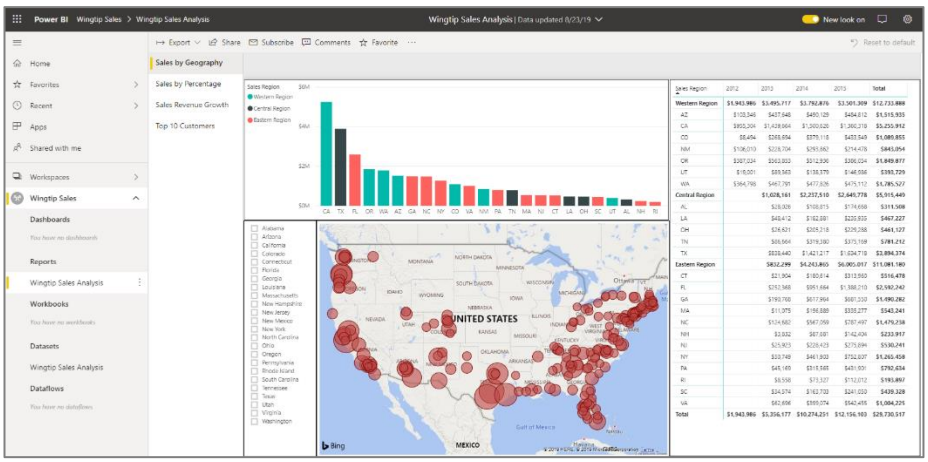


h) Click on the report named **Wingtip Sales Analysis** in the **Reports** section.



5. Examine the report named **Wingtip Sales Analysis**.

a) Locate the page tabs on the report.

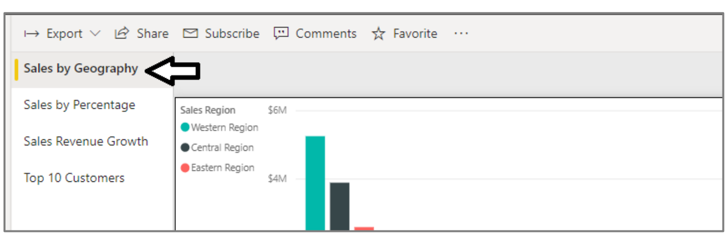


Note that the new look in the Power BI Service brings a significant new change with the layout of the page tabs for a report. While the old look displays page tabs horizontally at the bottom of a report, the new look moves page tabs to the top left in a vertical layout.

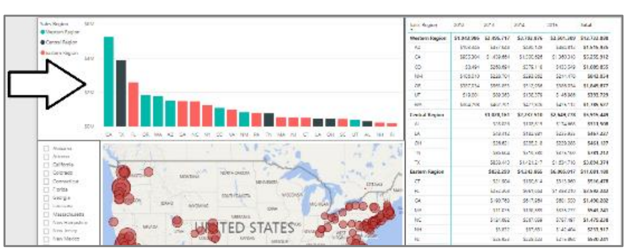
6. Create a new dashboard named **Wingtip Sales Analysis**.

a) Navigate to the **Reports** tab and open the report named **Wingtip Sales Analysis**.

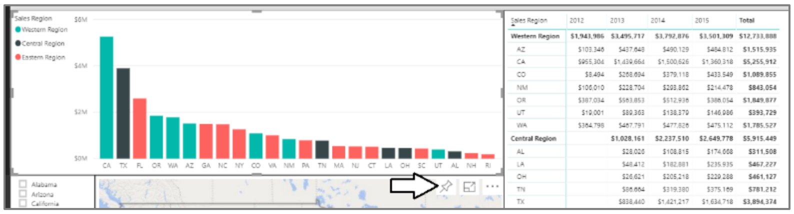
b) Navigate to the **Sales by Geography** page of the **Wingtip Sales Analysis** report.



c) Hover the mouse over the column chart visual which displays a sales revenue breakdown across sales regions and states.

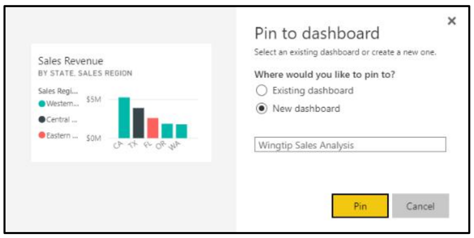


d) Locate and click the button with the thumbtack icon to pin this report visual to a new dashboard.

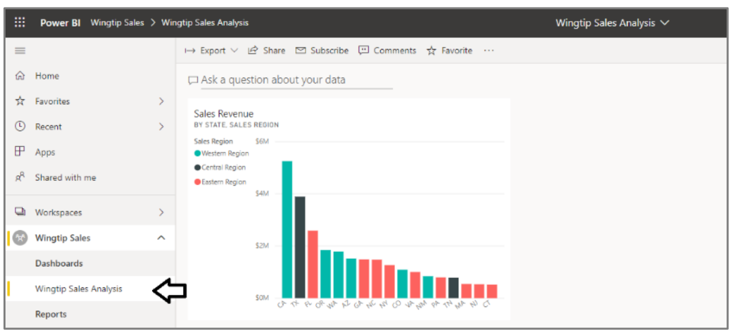


When you click the thumbtack button, you'll be prompted with the **Pin to dashboard** dialog which prompts you to select a dashboard.

e) Select **New Dashboard**, give it a name of **Wingtip Sales Analysis** and click the **Pin** button.



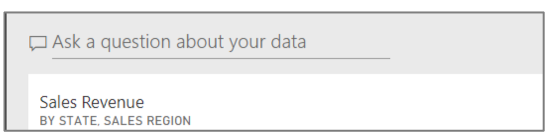
f) Click the **Wingtip Sales Analysis** link in the **Dashboards** section of the left navigation to display the new dashboard.



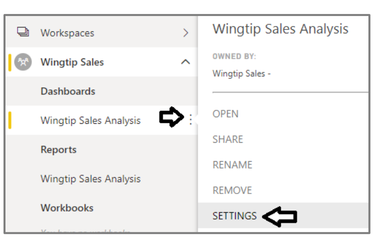
If you haven't previously worked with a Power BI dashboard, take a moment to experiment with resizing and moving the dashboard tile. Unlike a report, the changes you make to a dashboard tile are automatically saved without an explicit save action.

7. Remove the Q&A search box from the **Wingtip Sales Analysis** dashboard.

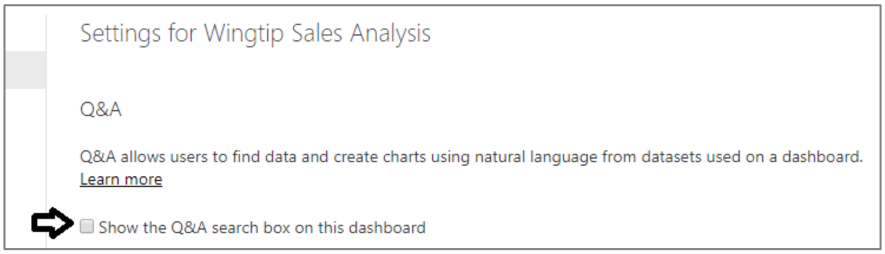
a) You can see that the new dashboard is initially displayed with the Q&A search box in the upper left corner.



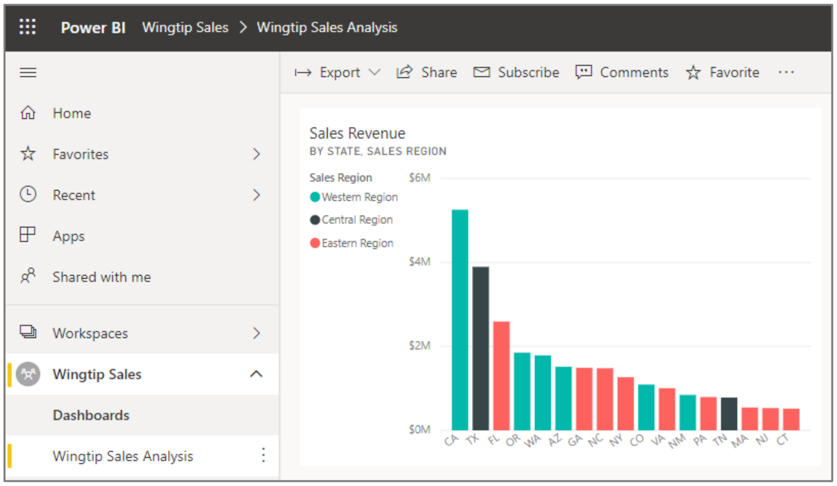
b) Click **Dashboards > SETTINGS** in the left navigation to display the **Settings for Wingtip Sales Analysis** pane.



c) In the **Settings for Wingtip Sales Analysis** pane, uncheck the **Show the Q&A search box on this dashboard** checkbox.



d) Click **Apply** below in the **Settings for Wingtip Sales Analysis** pane and confirm the Q&A search box is no longer showing.

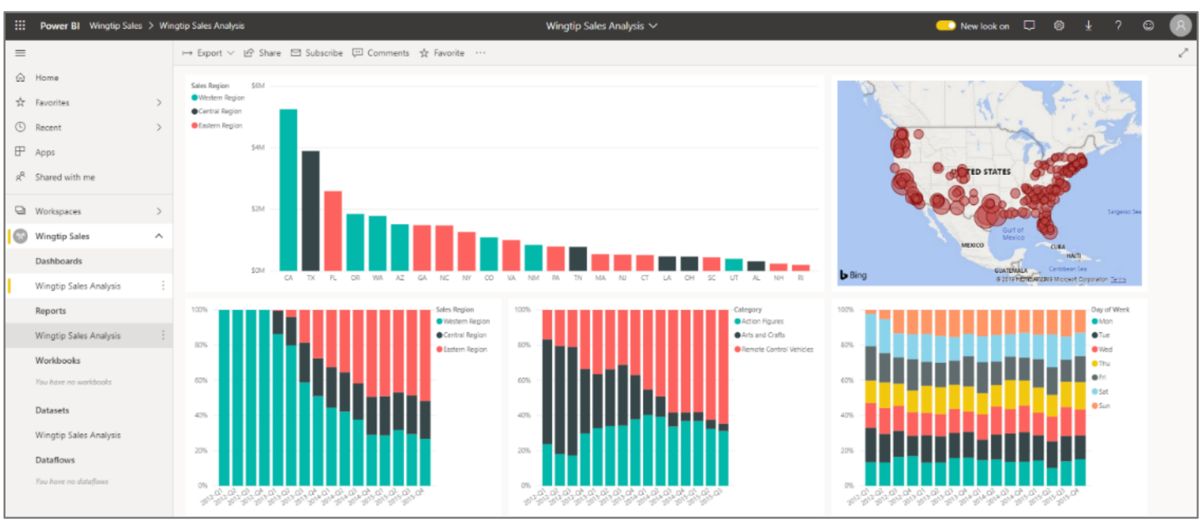


8. Add several more tiles to the dashboard by pinning visuals from the **Wingtip Sales Analysis** report.

a) Repeat the process you used in step 1 to create the first dashboard tile to add additional tiles to the dashboard.

Choose whatever visuals you'd like from the **Wingtip Sales Analysis** report. However, you should make sure that your dashboard contains several tiles. Be creative and design a dashboard that looks better than the dashboards of the other students around you.

b) When you're done, your dashboard should look something like the dashboard shown in following screenshot.



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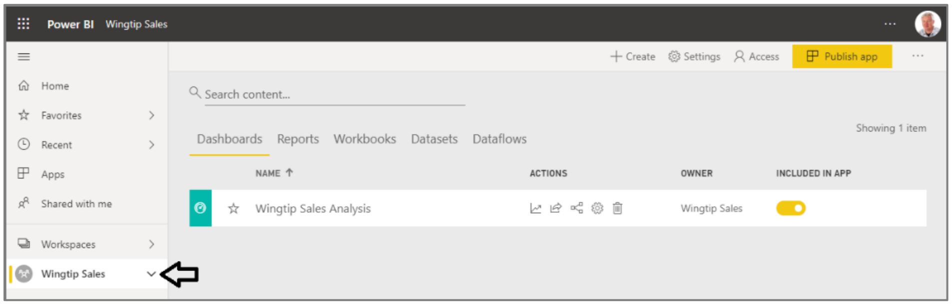
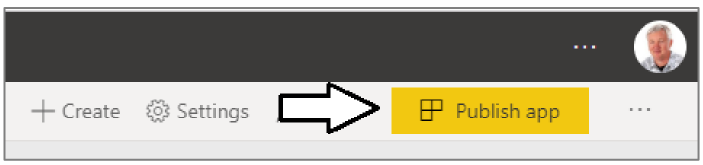
Exercise 2: Publish an App Workspace as a Power BI App

In this exercise you will publish the **Wingtip Sales** app workspace as a Power BI app.

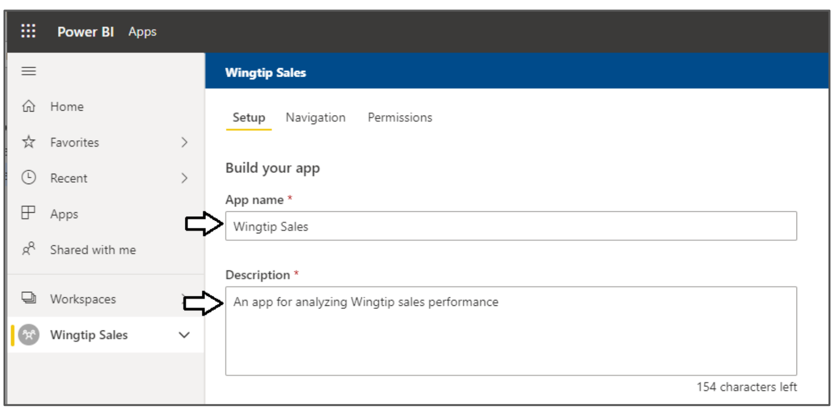
1. Publish the **Wingtip Sales** workspace as a Power BI app.
   a) Navigate to the **Wingtip Sales** app workspace.
   b) Click the **Wingtip Sales** link in the left navigation to show the summary page for the **Wingtip Sales** app workspace.



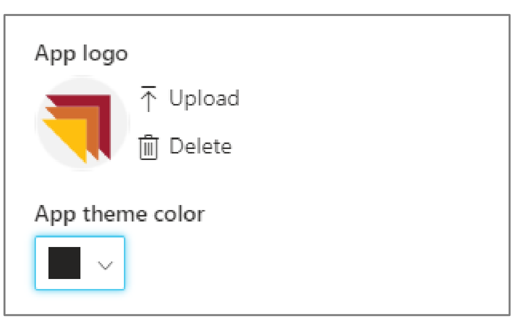
   c) Click the **Publish app** button.



   d) On the **Setup** tab, enter an **App name** of **Wingtip Sales** and a short **Description**.



   e) Upload an **App logo** from **C:\Student\Extras\Images\AppIcon.png**.
   f) Select a **App theme** color of black.



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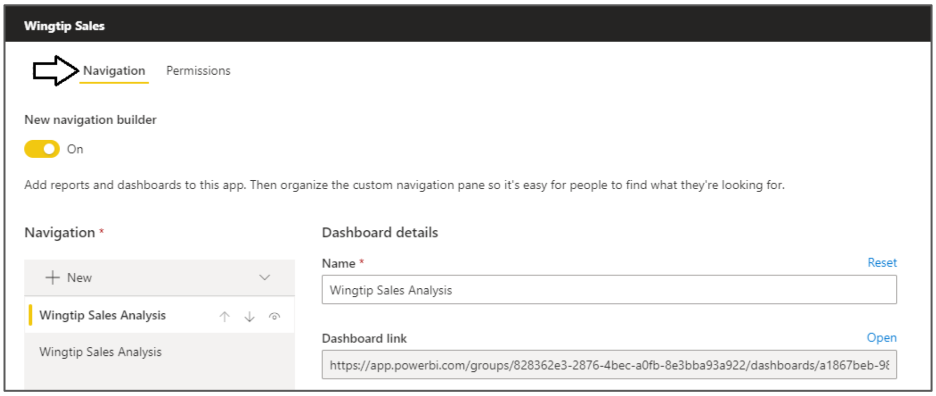
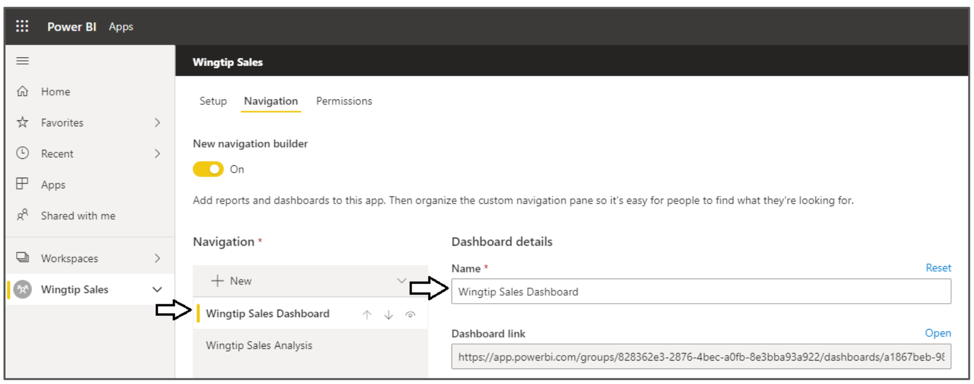
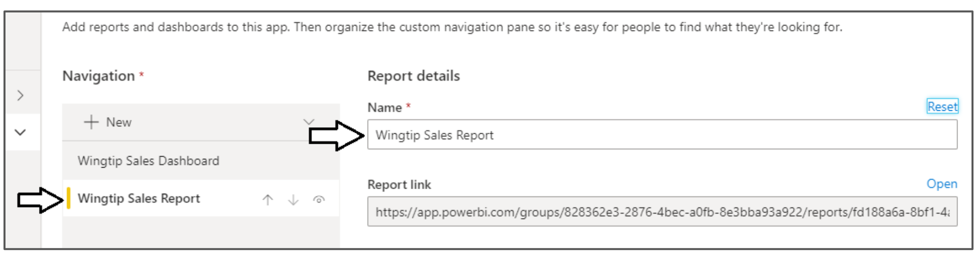
g) Click on the **Navigation** tab and **Set New navigation builder** to **On**..



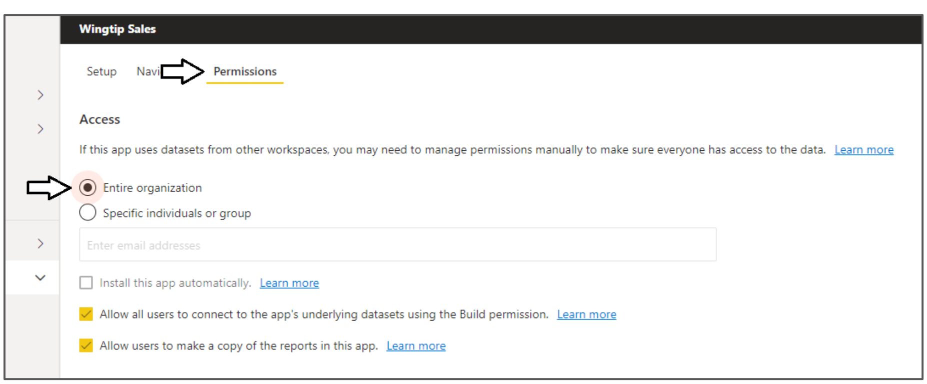
h) Select **Wingtip Sales Dashboard** in the left **Navigation** list and examine the **Name** listed on the right in **Dashboard Details**.



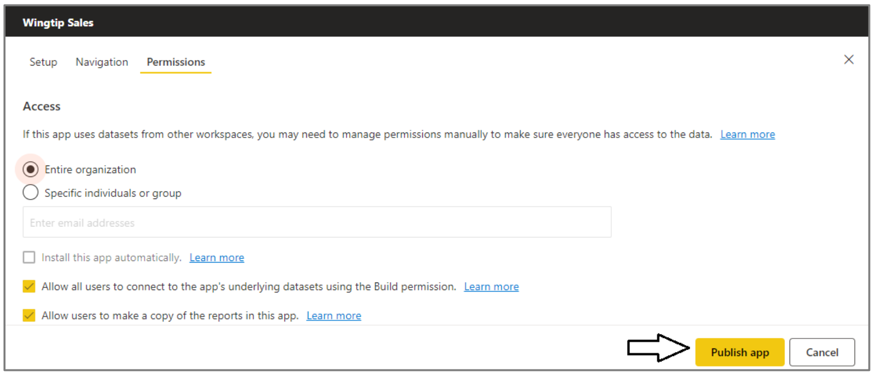
i) Select **Wingtip Sales Analysis** in the left **Navigation** list and change the **Name** in **Report Details** to **Wingtip Sales Report**..



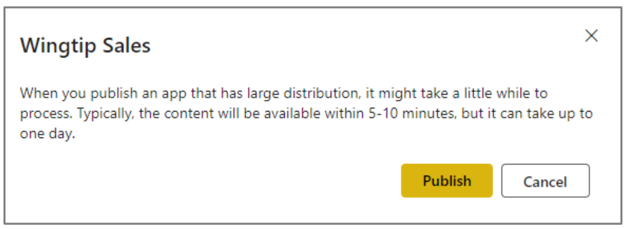
j) On the **Permissions** tab under **Access**, select **Entire organization**



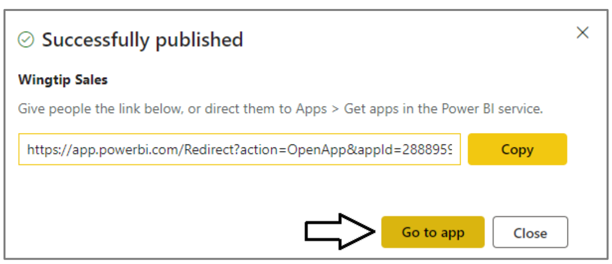
k) Click the **Publish app** button on the right to complete the publication process.



l) When prompted by the **Wingtip Sales** dialog, click **Publish**.

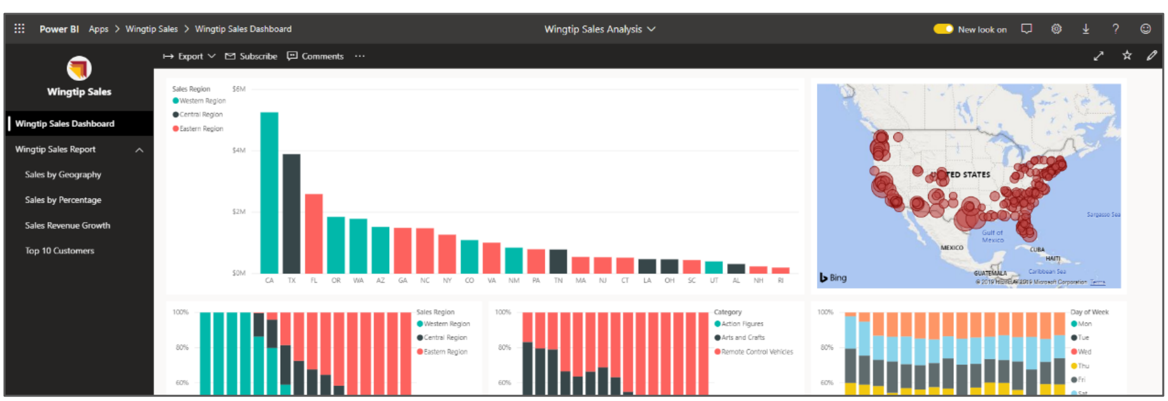


m) When you see the **Successfully Published** dialog, click the **Go to app** button.



The Wingtip Sales app is now being installed for your organization account,

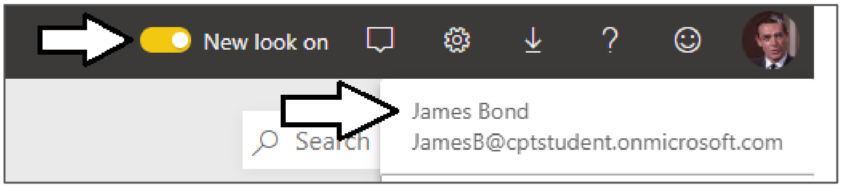
n) You should now be redirected into the Wingtip Sales app.



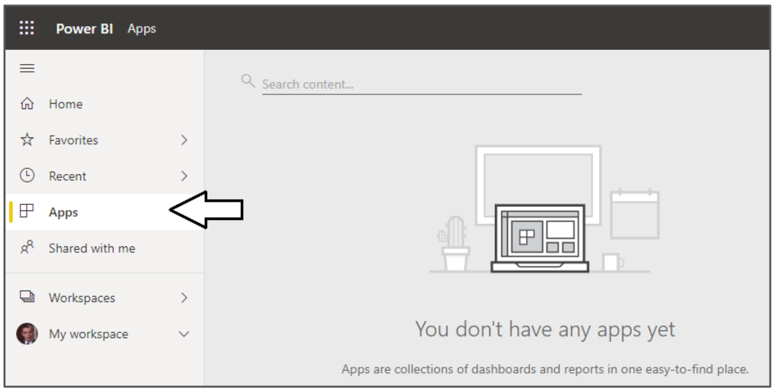
In the next step, you will logon as a different user. If you use a different browser (e.g. Chrome, Edge, Internet Explorer) for the secondary user, you can be logged on with two different users at the same time.

2. Install the app as a secondary user,

a) Log into https://app.powerbi.com using the secondary user account.

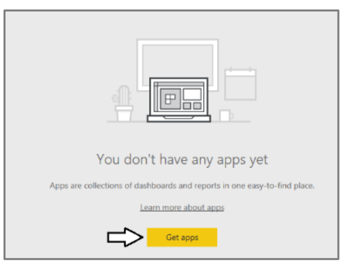


b) Click the **Apps** button in the left navigation menu.

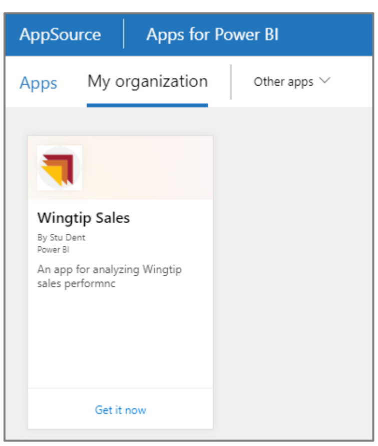


c) You should see there are no apps currently installed for the current user..

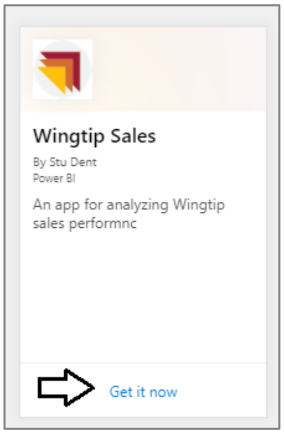
d) Click the **Get apps** button.



e) You should see the **AppSource** dialog showing you what apps are available for installation. The **Wingtip Sales** app should be displayed as an app available for installation.

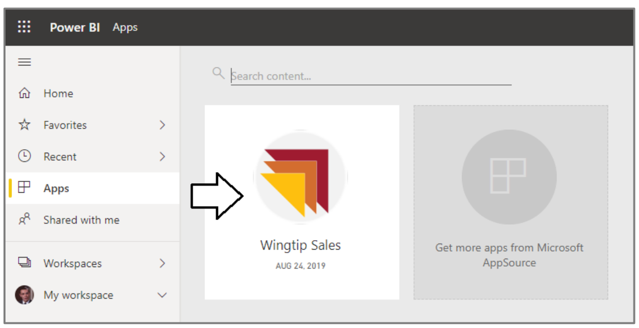


f) Click the **Get it now** link.



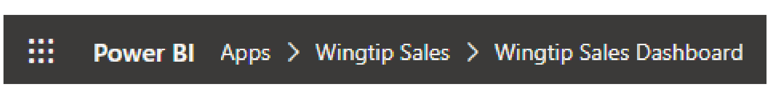
g) The app should install and then be displayed as shown in the following screenshot.

h) Click on the tile for the **Wingtip Sales** app to launch it,



i) When the app is launched, it should display the **Wingtip Sales Analysis** dashboard

j) Note the breadcrumb at the top shows a path with the app and the dashboard inside the app.

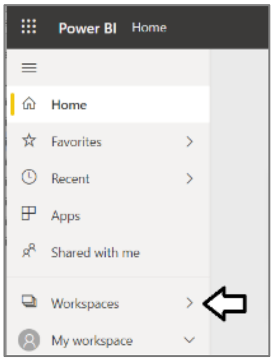


You have now installed and tested an app from the perspective of an ordinary user who does not an administrator..

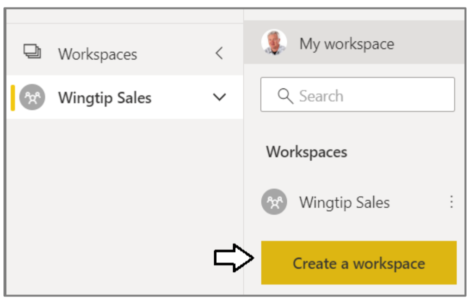
Exercise 3: Create and Test a Power BI Template App

In this exercise you will create an app workspace named **State Sales** and build it out as a Power BI template app..

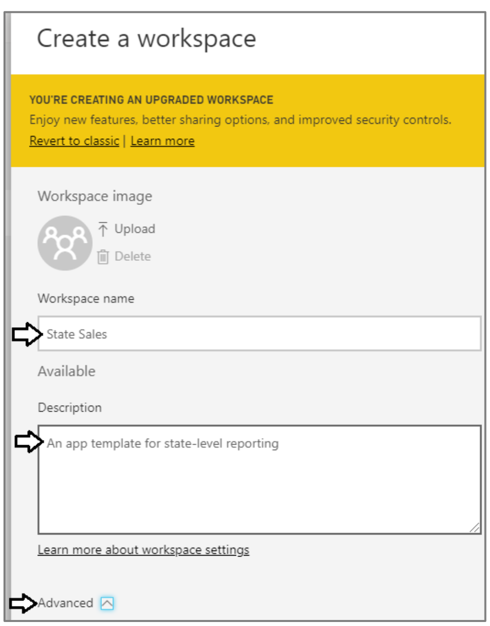
1. Create a new app workspace named **State Sales**.
   a) Click the **Workspace** flyout menu in the left navigation.



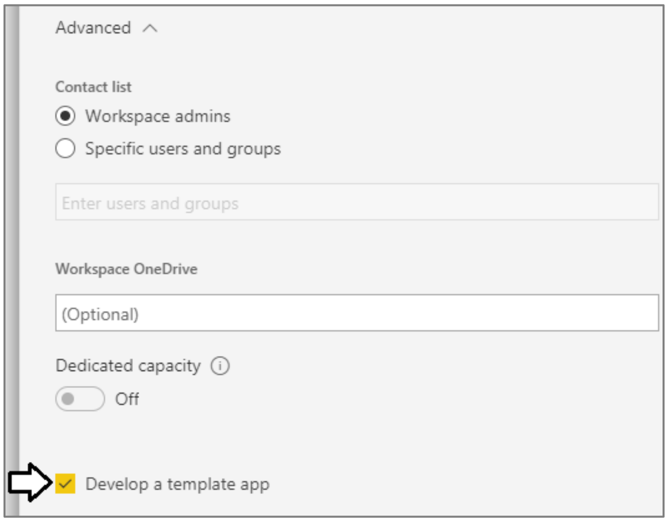
   b) Click the **Create app workspace** button to display the **Create an app workspace** dialog.



   c) In the **Create an app workspace** pane, enter a workspace name of **State Sales**.
   d) Enter a simple description and then click the **Advanced** link at the bottom.

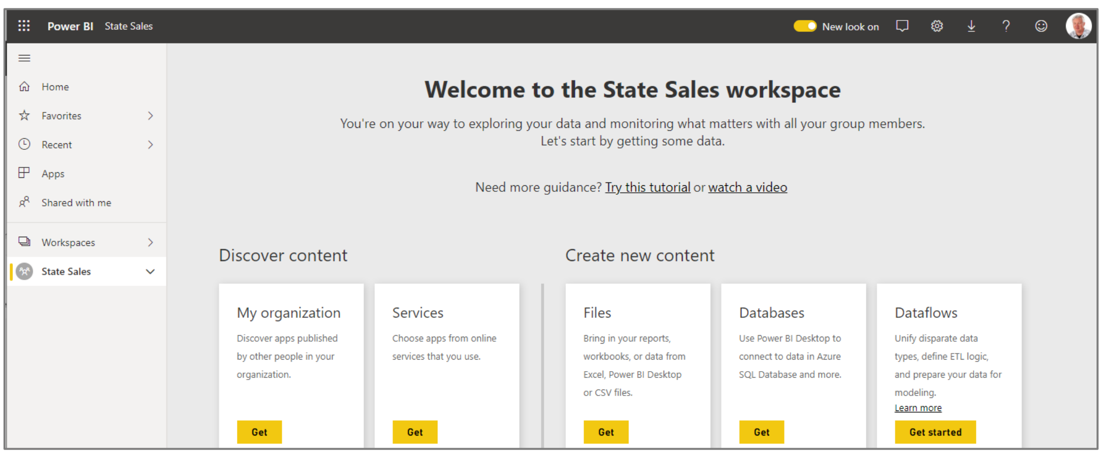


e) Check the **Develop a template app** checkbox.

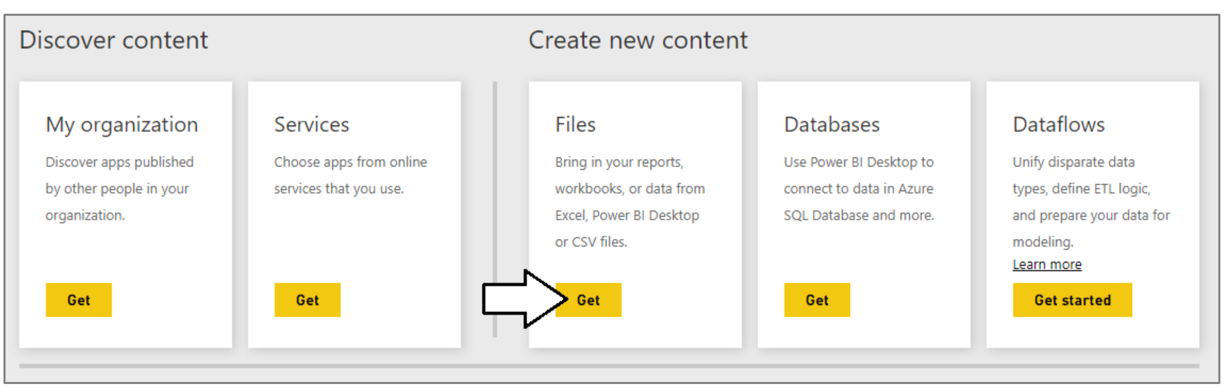


f) Click the **Save** button to create the new app workspace named **Wingtip Sales**.

g) You should see that the new app workspace named **State Sales** has been created.



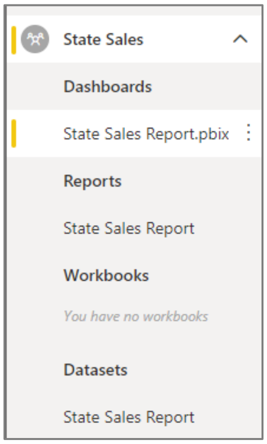
2. Upload content from a PBIX file into the **State Sales** workspace.
   a) Click the **Get data** link in the bottom left corner.
   b) Click the **Get** button in the **Files** section as shown in the following screenshot.



c) When prompted by the File open dialog, select the PBIX file named **State Sales Report.pbix** at the following location.

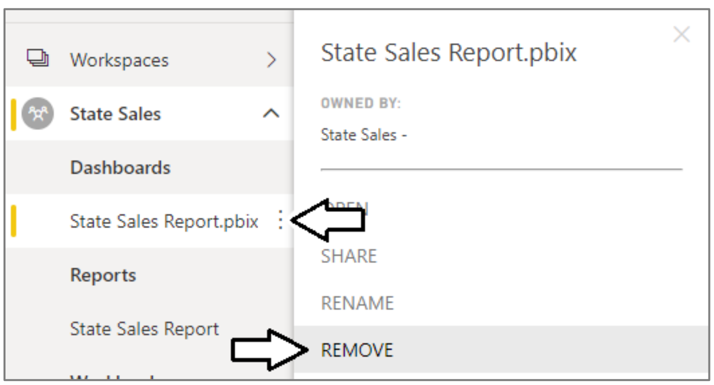
```
C:\Student\Modules\03_AppWorkspaces\Lab\State Sales Report.pbix
```

d) Once you have imported **State Sales Report.pbix**, insect the workspace resources in left navigation menu.



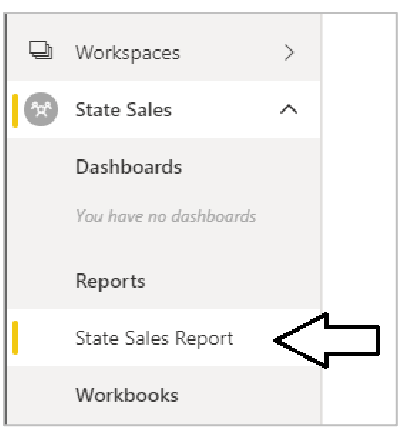
You should see a new dataset named **State Sales Report** , a new report named **State Sales Report** and a new dashboard named **State Sales Report.pbix**.

e) Delete the dashboard named **State Sales Report.pbix**.

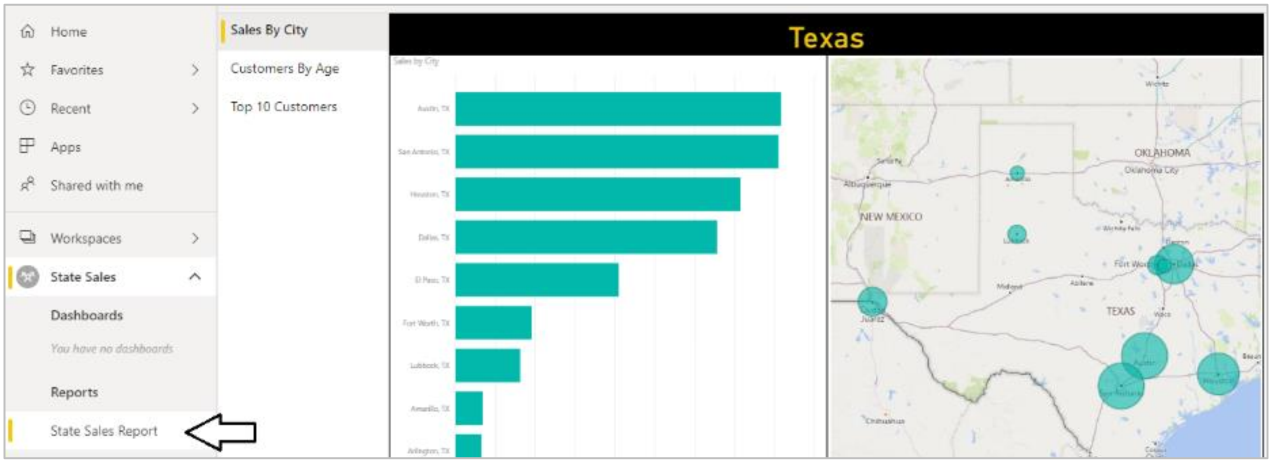


3. Open the new report named **State Sales Report**.

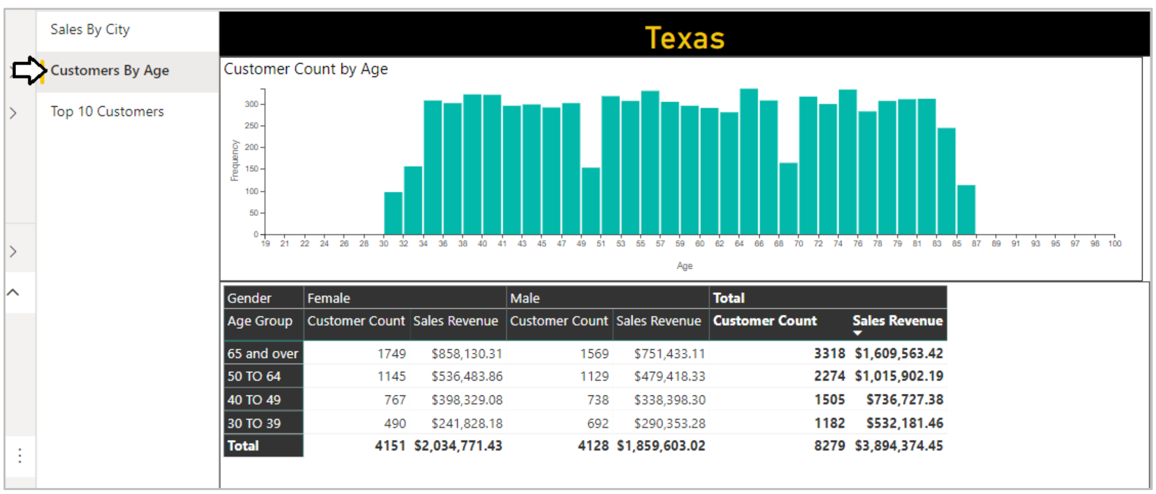
a) Click the link for the report named **State Sales Report** in left navigation to open it.



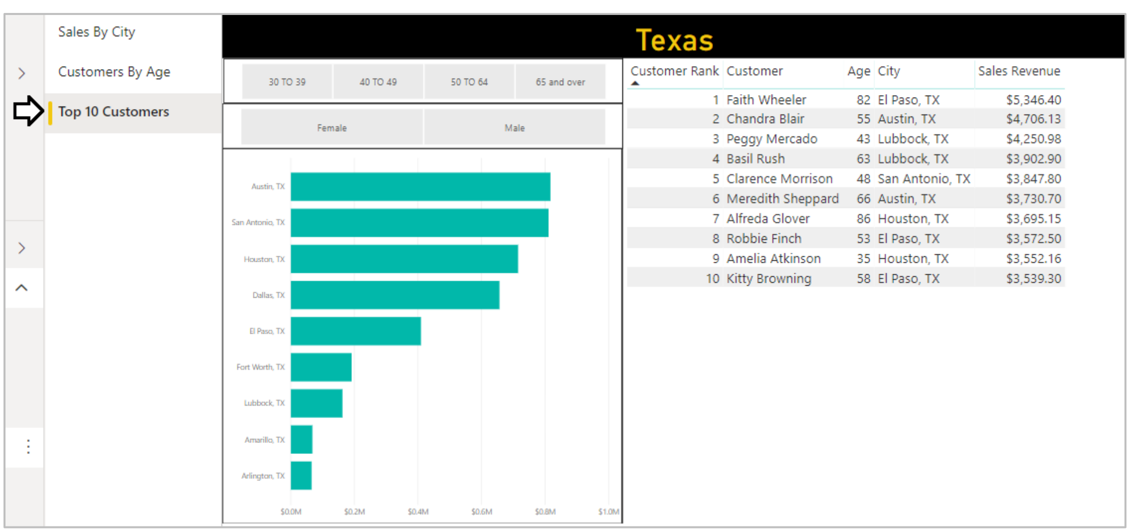
b) The report should open at the page named **Sales by City** and display sales data for cities in the state of Texas.



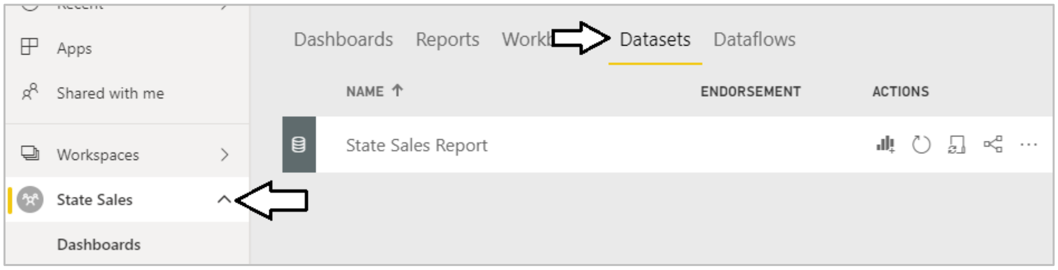
c) Examine the **Customers by Age** page.



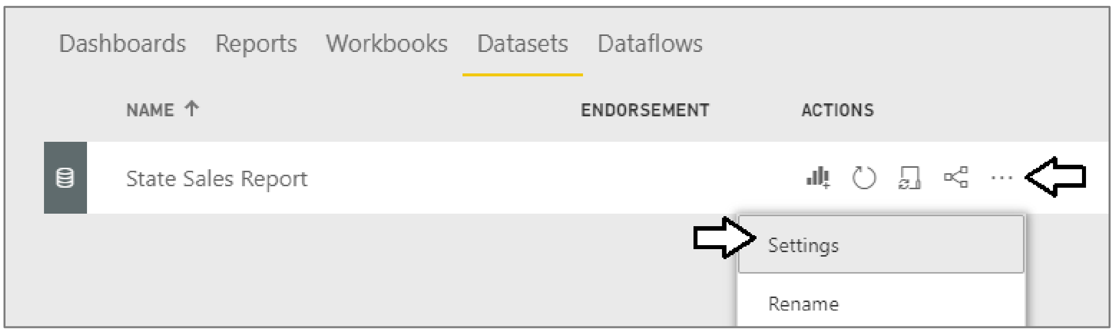
d) Examine the **Top 10 Customers** page.



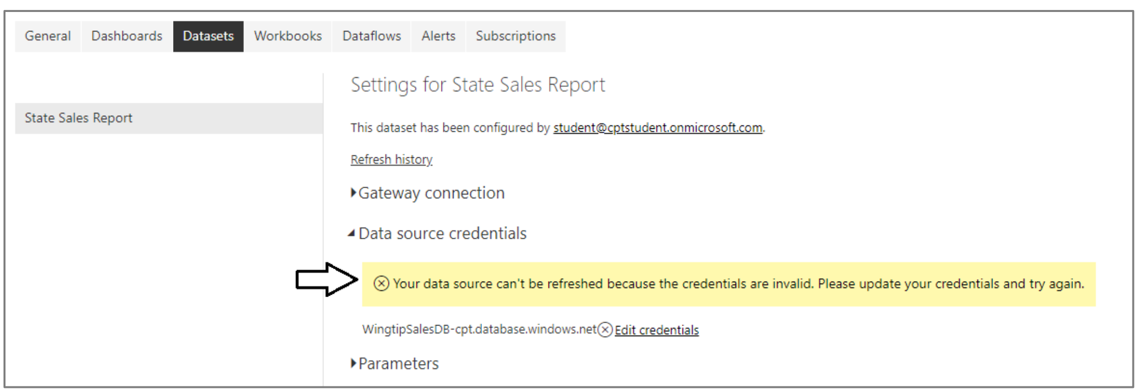
4. Configure the data source credentials for the **State Sales Report** dataset.
   a) Click on the **State Sales** workspace in the left navigation to see the workspace summary page.
   b) Click on the **Datasets** tab to view the datasets inside the **State Sales** workspace.



   c) Click the ellipse dropdown menu for the **State Sales Report** dataset and select the **Settings** menu command.

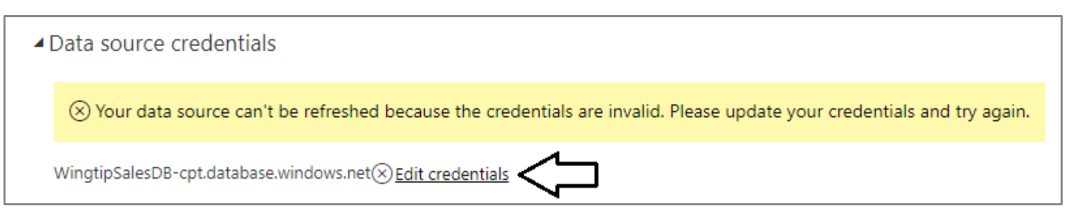


   d) Expand the **Data source credentials** section for the **State Sales Report** app workspace.



You should see a message indicating the data source can't be refreshed because the data source credentials are invalid. In the next step you will enter credentials for an Azure SQL database so that you can perform server-side refreshes on the **State Sales Report** dataset.

   e) Click on the **Edit credentials** link.



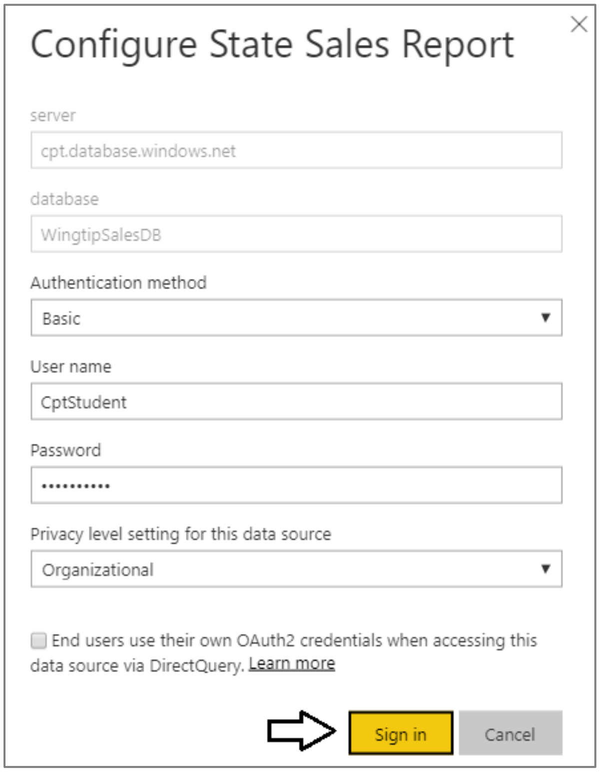
f) In the **Configure State Sales Report** dialog, set **Authentication method** to **Basic**.

g) Set **User name** to **CptStudent**.

h) Set **Password** to **pass@word1**.

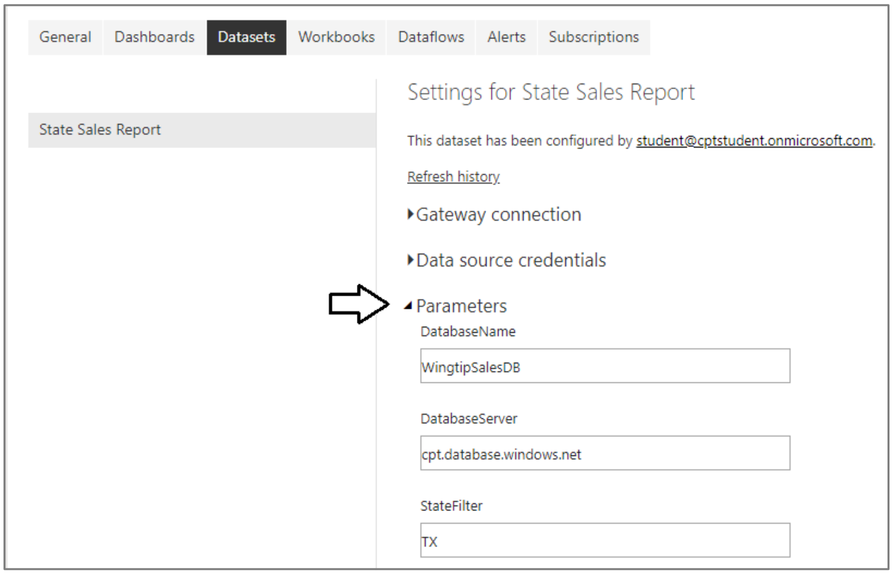
i) Set **Privacy level setting for this data source** to **Organizational**.

j) Click the **Sign in** button to enter the credentials.

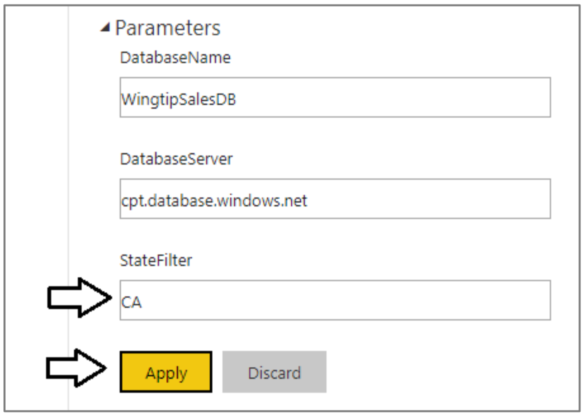


5. Update the **StateFilter** parameters on the **State Sale Report** dataset to import customer data from California instead of Texas.

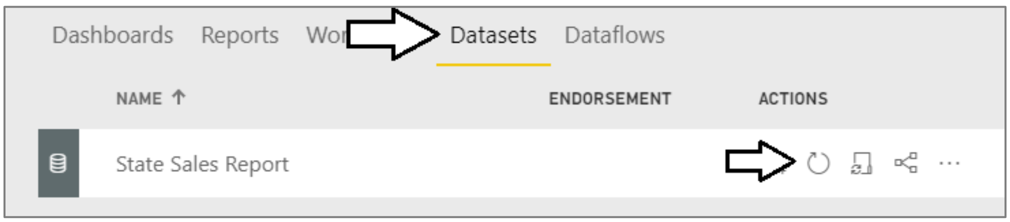
a) Open the **Parameters** section in **Settings for State Sales Report**.



b) Update the **StateFilter** parameter to **CA** and then click **Apply**.

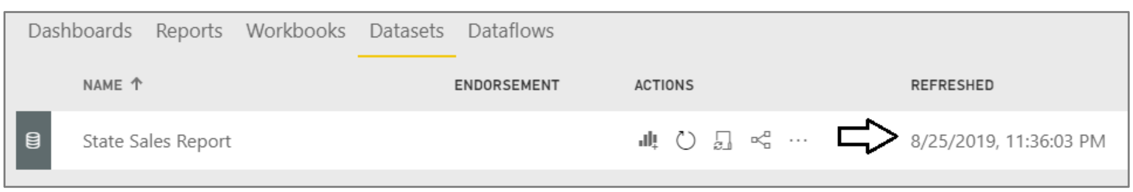


c) From the **Datasets** tab, click the **Refresh** button to run a refresh operation on the **State Sales Report**.

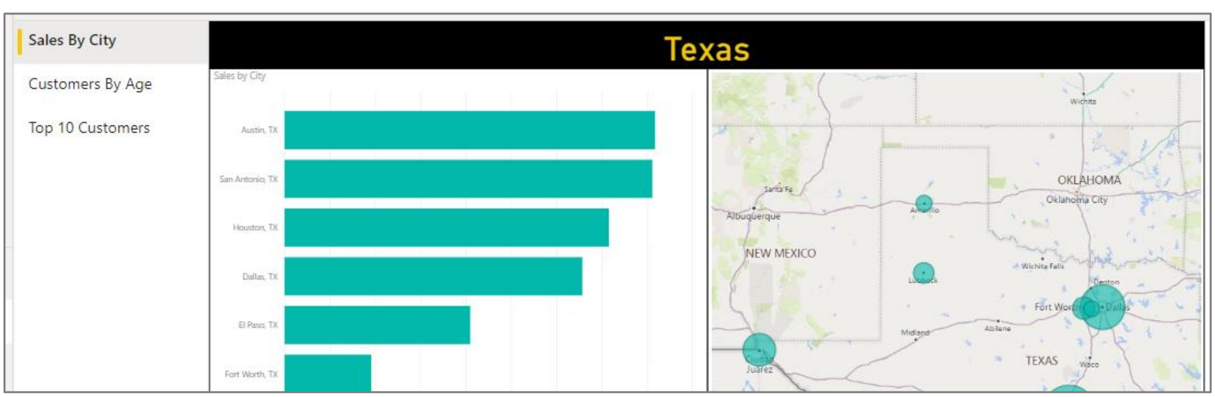


d) You should be able to confirm that the refresh operation starts and completes successfully.

e) Confirm the refresh operation succeeded by examining the date and time in the **REFRESHED** property.

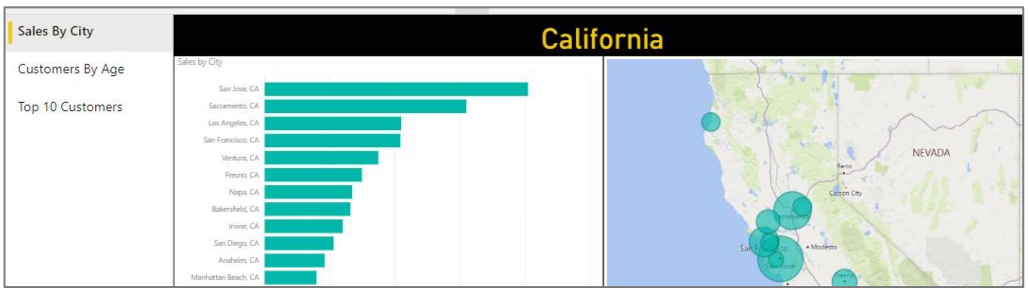


f) Open the report named **State Sales Report**. At first, you might see it still shows sales data for Texas instead of California.



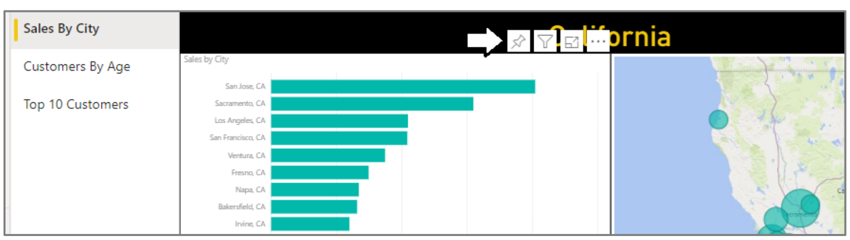
g) Drop down the report ellipse menu and select the **Refresh** menu command to refresh the report.

h) The report should now show California customer data instead of Texas customer data.



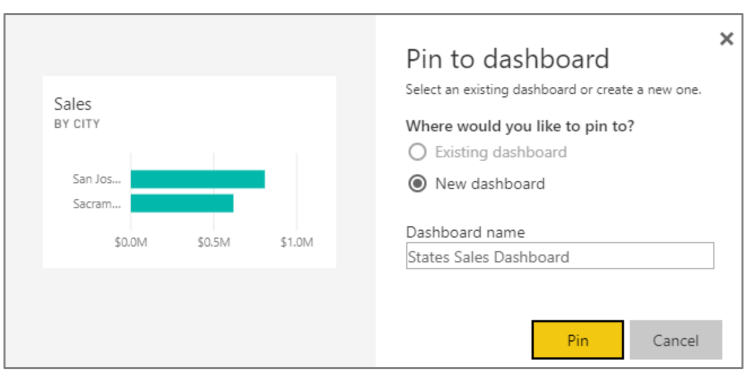
6. Create a dashboard named **State Sales Dashboard**.

a) Select the bar chart visual on the **Sales by City** page and then click the button with the thumbtack icon to pin the visual.



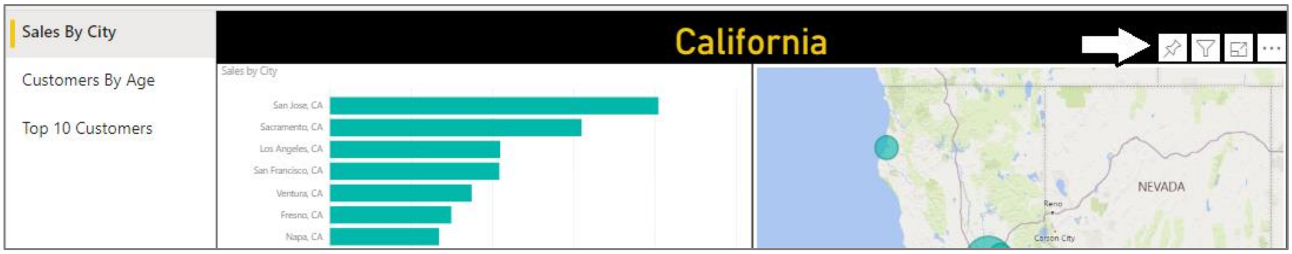
b) When prompted with the **Pin to dashboard** dialog. select **New dashboard**.

c) Enter a **Dashboard name** of **State Sales Dashboard** and then click **Pin**.



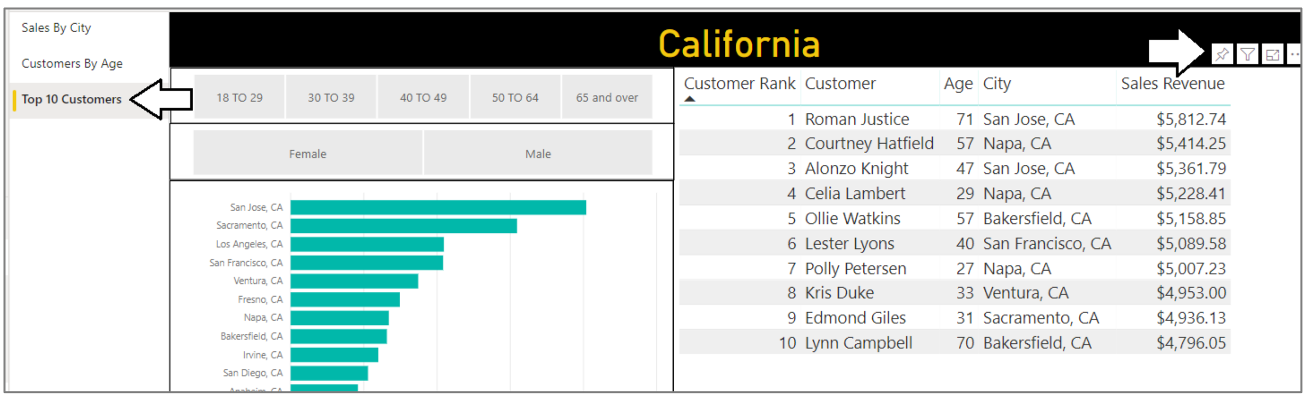
You just pinned the bar chart visual to create a new dashboard with a tile displaying the bar chart. Next, you will create a second tile by pinning the map visual. After that you will create a third dashboard tile by pinning the table visual on the **Top 10 Customers** page.

d) Select the map visual on the **Sales by City page**. Click the thumbtack button to pin the map visual to **State Sales Dashboard**.

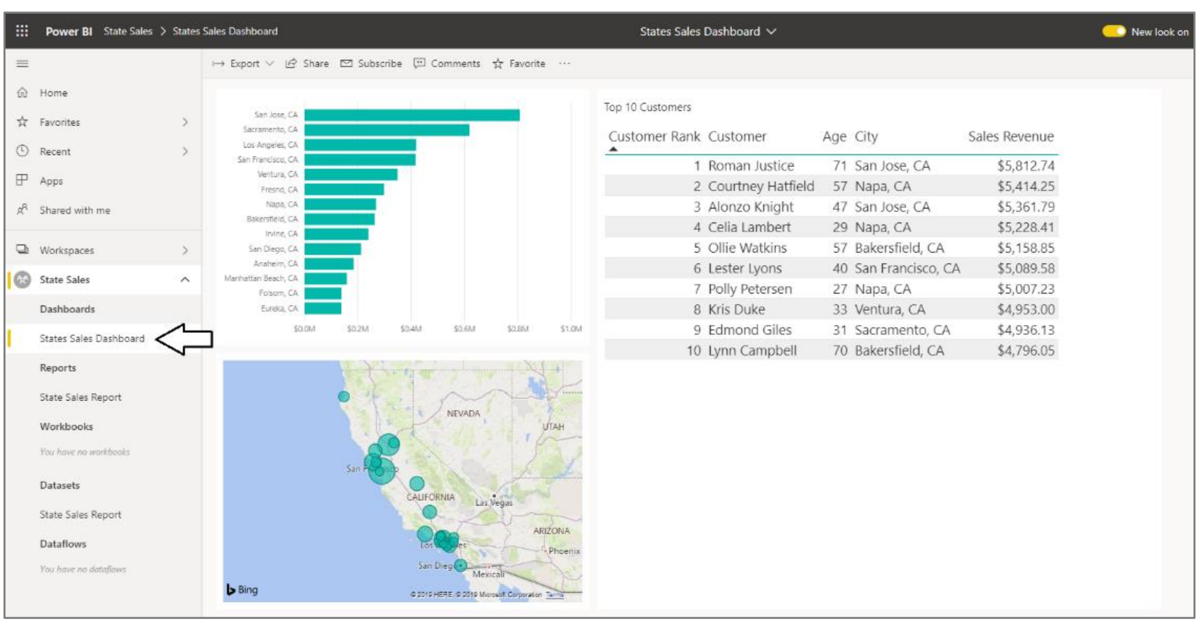


e) Navigate to the **Top 10 Customers** page.

f) Select the table visual and then click the thumbtack button to pin the table visual to **State Sales Dashboard**.

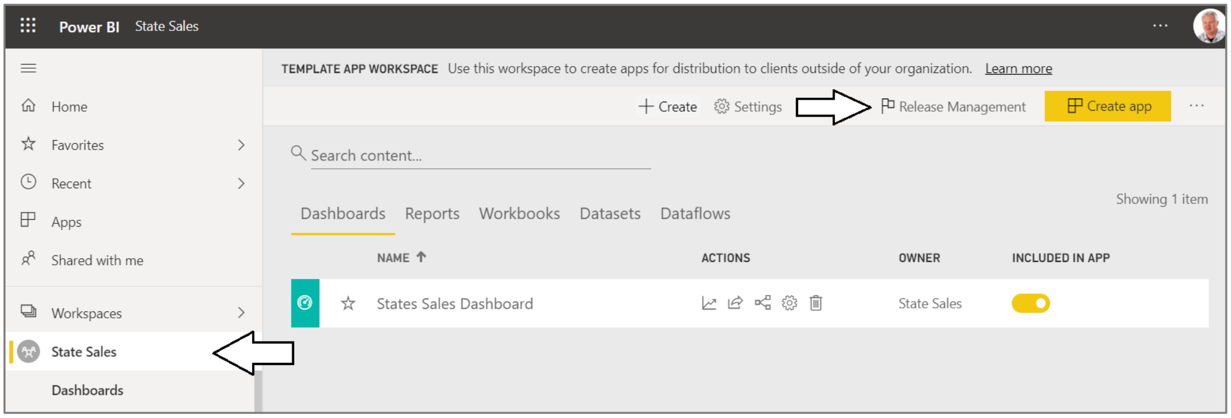


g) Navigate to the dashboard named **State Sales Dashboard**.

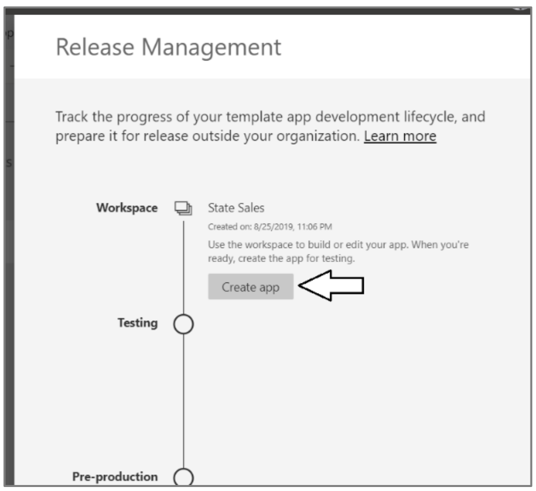


You have now completed the work to populate the app workspace with a dataset, a report and a dashboard. You will now begin to work with the Release Management features of Template Apps.

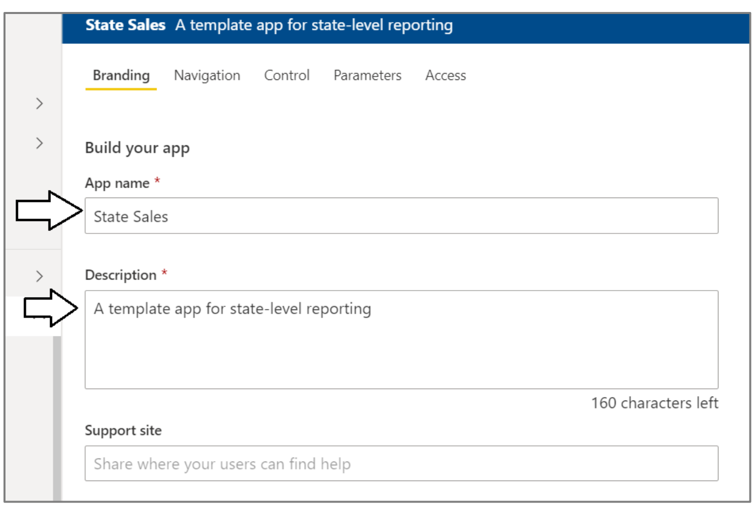
7. Use the Template App Release Management features.
   a) Click the **State Sales** workspace in left navigation to move to the workspace summary page.
   b) Click the **Release Management** button.



   c) Click the **Create app** button to create the new Template App.

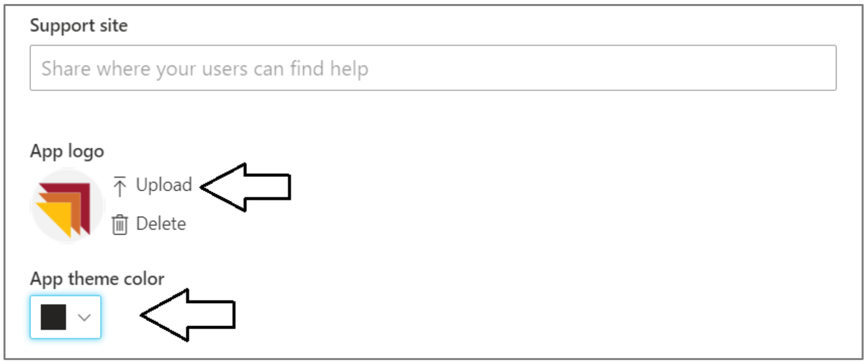


   d) Enter an **App name** of **State Sales** and a simple description as shown in the following screenshot.

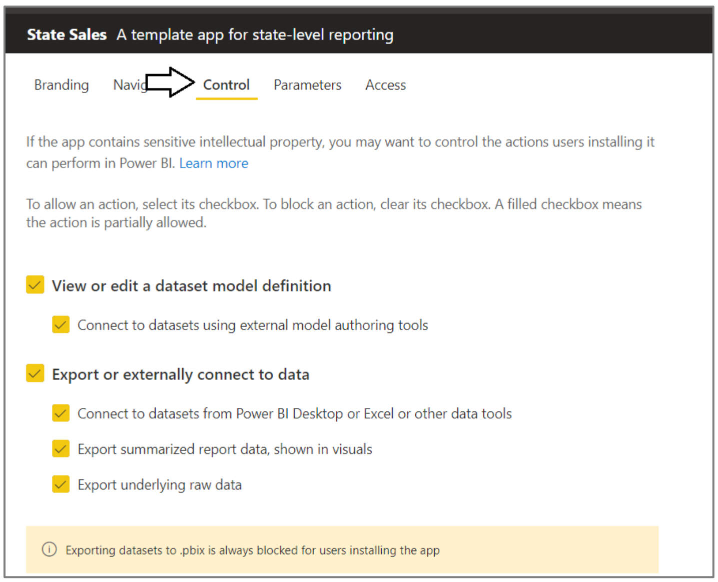


e) Upload an **App logo** from **C:\Student\Extras\Images\AppIcon.png**.

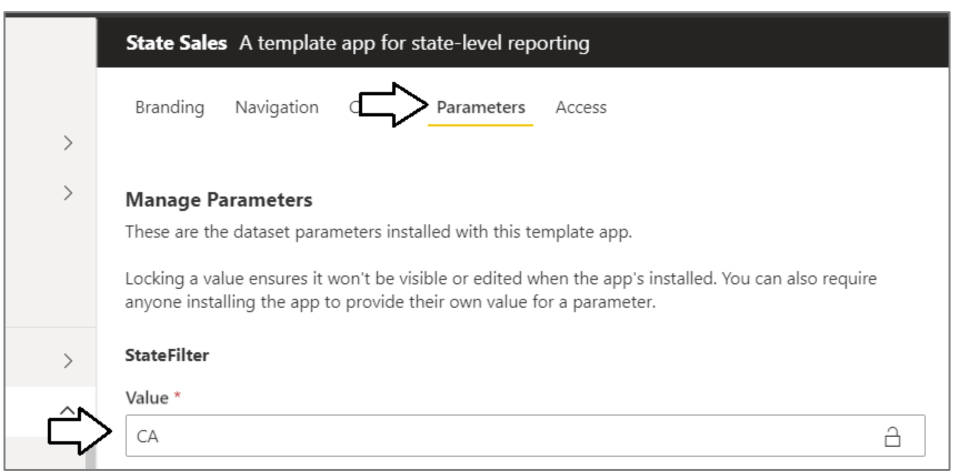
f) Select a **App theme** color of black.



g) Select the Control tab and check the checkboxes shown in the following screenshot.



h) Click on the Parameters tab and set the **StateFilter** value to **CA**.

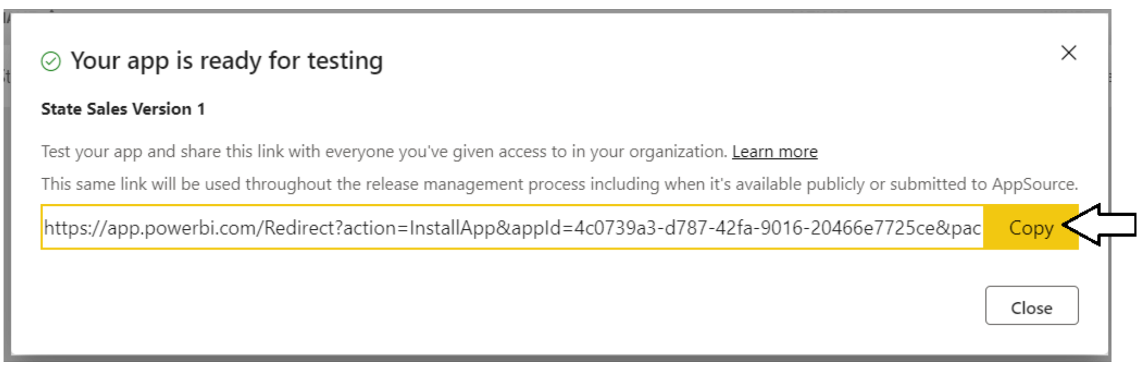


i) Set the **Value** for the **DatabaseServer** parameter to **cpt.database.windows.net**..

j) Set the **Value** for the **DatabaseName** parameter to **WingtipSalesDB**..

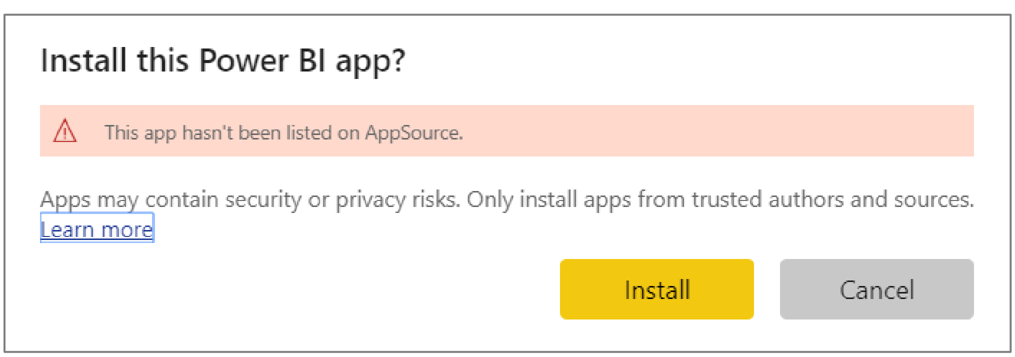
k) Click the **Create app** button.

l) When you are prompted by the **Your app is ready for testing dialog**, click copy to copy the test URL into the clipboard.

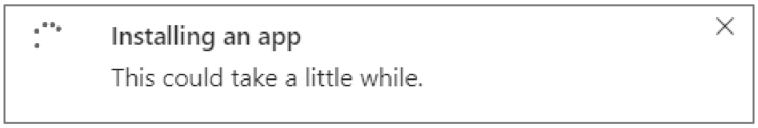


m) Open a browser window and paste in the URL in the clipboard.

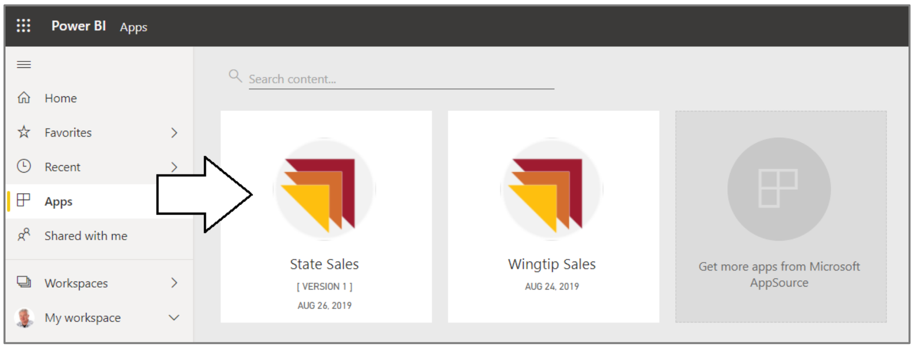
n) When prompted to **Install this Power BI app?**, click the **Install** button.



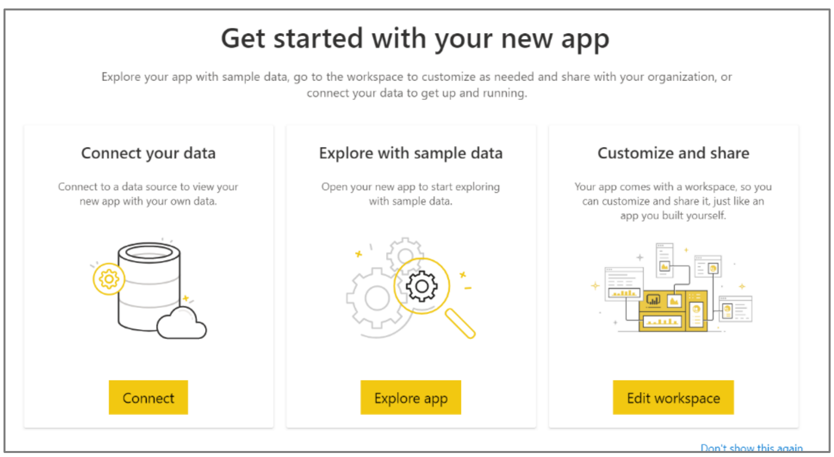
o) Wait while the app is installed.



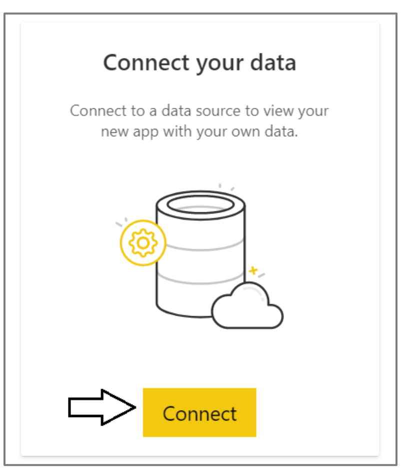
p) Launch the new app.



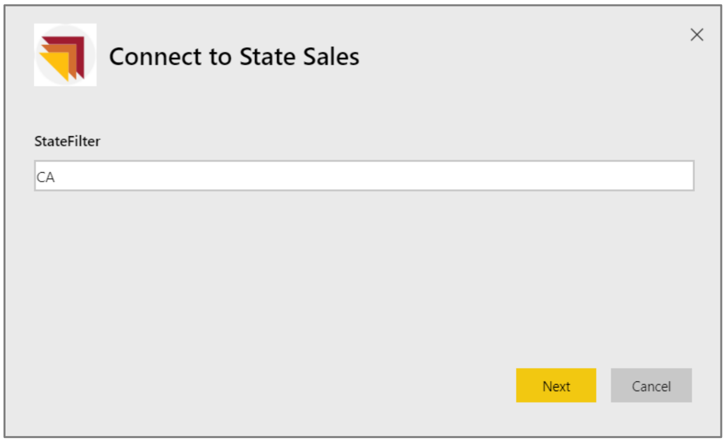
q) You should now see the **Get started with your new app** page.



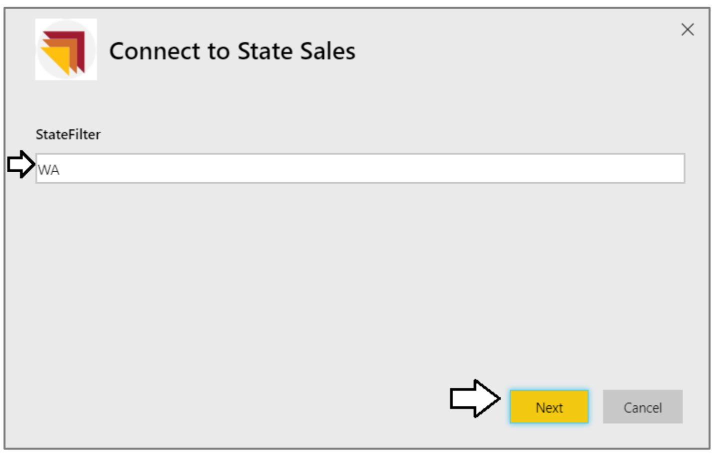
r) Click the **Connect** button in the **Connect your data** section.



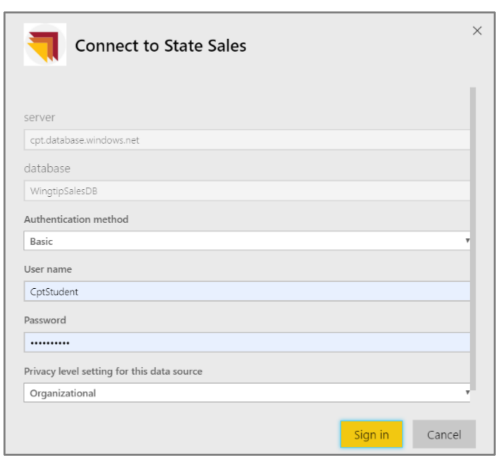
s) The **StateFilter** parameter should be given a default value of **CA**.



t) Update the **StateFilter** parameter with a value of **WA** and click **Next**.



u) Click the **Sign in** button to enter your data source credentials.



The template app should now be installed and it should show data from WA.