

## 1. Exercise Asking Questions About the Data

Sales by Country

Country	Sales
United States of America	~25M
Canada	~25M
France	~24M
Germany	~23M
Mexico	~21M

Sum of Sales By Country By Segment Matrix

Showing results for Dim

Country	Channel Partners	Enterprise	Government	Midmarket	Small Business	Total
Canada	491,164.14	3,967,491.25	10,741,236.52	510,213.98	9,177,540.00	24,887,654.89
France	372,090.36	3,890,890.63	12,127,782.72	593,802.08	7,369,606.50	24,354,172.29
Germany	336,425.88	4,086,826.25	11,452,895.94	301,344.75	7,327,948.00	23,505,340.82
Mexico	234,379.08	3,315,881.25	9,791,599.38	511,136.40	7,096,356.00	20,949,352.11
United States of America	366,534.18	45,50,605.00	8,390,746.12	465,385.88	11,456,559.00	25,029,830.18
<b>Total</b>	<b>1,800,593.64</b>	<b>19,611,694.38</b>	<b>52,504,260.68</b>	<b>2,381,883.09</b>	<b>42,427,918.50</b>	<b>118,726,350.29</b>

Ke Zhang

File Home Insert Modeling View Optimize Help Format Data / Drill

Paste Cut Ask Questions • Last saved: Today at 9:23 AM ▾

Search

Format visual New visual Text box Insert More visuals ▾

New visual calculation ▾ New measure Quick measure Sensitivity Share Copilot

Transform Refresh data ▾

Get data ▾ OneLake SQL Server Data Source ▾ Enter data Dataverse Recent sources ▾

Clipboard

Format painter

Clipboard

Share

Visualizations Format visual Search

Visual General ...

Y-axis

X-axis

Legend Off

Small multiples

Gridlines

Zoom slider Off

Bars

Data labels Off

Plot area background

Page 1 Page 2 +

Page 1 of 2

94% 10:02 AM 2025-03-28 ENG

## 2. Exercise Publish Report to Power BI Service

The screenshot shows the Microsoft Power BI desktop application interface. The main area displays a line chart titled "Count of Booking\_ID by arrival\_full\_date". The Y-axis is labeled "Number of Booking" and ranges from 0 to 70. The X-axis is labeled "Arrival Month" and shows dates from July 2017 to October 2018. A tooltip window titled "Publishing to Power BI" is overlaid on the chart, indicating "Success!" and providing links to "Open 'KeZhang.pbix' in Power BI" and "Get Quick Insights". The Power BI ribbon is visible at the top, and the Visualizations and Data panes are open on the right side. The status bar at the bottom shows "Page 1 of 12", "94%", "10:08 AM", and the date "2025-03-28".

### 3.1 Exercise Set up Row-Level Security

The screenshot shows the Microsoft Power BI desktop application. The ribbon at the top has 'Modeling' selected. The main area displays the 'Manage security roles' dialog box. This dialog allows creating new security roles and defining row-level data restrictions through tables and filters.

**Manage security roles**

Create new security roles and use filters to define row-level data restrictions.

**Roles**

- + New
- zhang1913@saskpol...

**Select tables**

- DimDateTable
- DimTableCoun...
- DimTableDisCat
- DimTableProd...
- DimTableSegm...
- RowLevelSecur...
- TransactionTable

**Filter data**

Show data if All of these rules are true

Column	Condition	Value
Country	Equals	Canada

+ New

**Buttons**

- Switch to DAX editor
- Save
- Close

On the right side, there is a sidebar titled 'Visualizations' and 'Data'. The 'Data' section lists various tables: DimDateTable, DimTableCountry, DimTableDisCat, DimTableProduct, DimTableSegment, RowLevelSecurityCou..., and TransactionTable. Below the tables are sections for 'data fields here', 'drill-through report (Off)', 'all filters (On)', and 'drill-through fields here'.

At the bottom, the status bar shows 'Page 1 of 1', system icons, battery level (94%), and the date/time '10:18 AM 2025-03-28'.

### 3.2 Exercise Set up Row-Level Security

The screenshot shows the Microsoft Power BI desktop application interface. The top menu bar includes File, Home, Insert, Modeling, View, Optimize, and Help. The ribbon below the menu bar has sections for Clipboard, Data, Queries, Insert, Calculations, Sensitivity, Share, and Copilot. A central workspace is visible with a 'Build view' message: 'Select or drag fields from the left pane to build your report'. A modal dialog box titled 'Publishing to Power BI' displays a success message: '✓ Success!' and a link to 'Open 'Security.pbix' in Power BI'. It also contains a 'Did you know?' section with information about creating a portrait view for mobile phones. The right side of the interface features a 'Visualizations' pane with various chart icons, a 'Data' pane listing tables like DimDateTable, DimTableCountry, etc., and a 'Filters' pane. The bottom taskbar shows the Windows Start button, a search icon, pinned application icons for File Explorer, Mail, Edge, and others, and system status icons. The status bar at the bottom right indicates the date as 2025-03-28, the time as 10:29 AM, and battery level at 94%.

4. Exercise How to test what another would see on a Report with Row\_Level security

Security • Last saved: Today at 10:28 AM ▾ Ke Zhang ⓘ Share ▾

File Home Insert **Modeling** View Optimize Help Format Data / Drill

Manage relationships New visual calculation New Quick New measure column New table Mark as date table Change detection Page refresh New parameter Parameters Manage roles as Security Q&A Language setup Linguistic schema Q&A

Now viewing as: zhang1913@saskpolytech.ca

Product Amarilla Carretera Montana Paseo Velo VTT

Country Canada

Sales

0M 5M 10M 15M 20M 25M 30M

Stop viewing Filters

Visualizations

Format visual

Search

General

Y-axis

X-axis

Legend On

Small multiples

Gridlines

Zoom slider Off

Bars

Ribbons Off

Data labels Off

Total labels Off

Plot area background

Visual General

Search

DimDateTable

DimTableCountry

DimTableDisCat

DimTableProduct

DimTableSegment

RowLevelSecurityCou...

TransactionTable

COGS

Country

Date

Discount Categ...

Discounts

Gross Sales

Manufacturing ...

Month Name

Month Number

Product

Profit

Sale Price

Sales

Segment

Units Sold

Year

Page 1 +

Page 1 of 1

94%

10:36 AM  
2025-03-28

This screenshot shows a Microsoft Power BI desktop interface. The main area displays a horizontal stacked bar chart for Canada, categorized by product: Amarilla, Carretera, Montana, Paseo, Velo, and VTT. The x-axis represents Sales in millions, ranging from 0M to 30M. The chart shows total sales slightly above 20M. The Visualizations pane on the right side of the screen lists various chart settings and data fields, many of which are checked. The status bar at the bottom provides information about the report's progress and save history.

## 5.1 Exercise Add Tiles to a Dashboard

Power BI 我的工作区 https://app.powerbi.com/groups/me/datasets/60b93970-97a8-4c56-8f16-4372dd4ff95d?experience=power-bi

快速摘要 KeZhang

你的数据

fact\_HotelBooking...

- 行计数
- $\Sigma$  arrival\_date
- $\Sigma$  arrival\_month
- $\Sigma$  arrival\_year
- $\Sigma$  avg\_price\_per...
- Booking\_ID
- booking\_stat...
- $\Sigma$  lead\_days
- market\_seg...
- $\Sigma$  no\_of\_adults
- $\Sigma$  no\_of\_children
- $\Sigma$  no\_of\_previo...
- $\Sigma$  no\_of\_previo...
- $\Sigma$  no\_of\_specia...
- $\Sigma$  no\_of\_week...
- $\Sigma$  no\_of\_whee...
- repeated\_gu...
- required\_car...
- $\Sigma$  room\_type\_r...
- type\_of\_mea...

我的工作区

无标题报表

Power BI

10:57 AM 2025-03-28

The screenshot shows a Power BI desktop interface with a dashboard containing six tiles. The tiles are arranged in two rows of three. Each tile displays a summary statistic with a bar chart.

- lead\_days 的总和(按 booking\_status)**: Compares Canceled (0.41 百万) and Not\_Canceled (0.36 百万).
- arrival\_date 的总和(按 booking\_status)**: Compares Not\_Canceled (95 千) and Canceled (47 千).
- no\_of\_week\_nights 的总和(按 booking\_status)**: Compares Not\_Canceled (12.8 千) and Canceled (7.2 千).
- arrival\_month 的总和(按 booking\_status)**: Compares Not\_Canceled (46 千) and Canceled (22 千).
- no\_of\_previous\_cancellations 的总和(按 booking\_status)**: Compares Not\_Canceled (235) and Canceled (15).
- avg\_price\_per\_room 的总和(按 Booking\_ID)**: Shows average prices for various Booking IDs, with INN33115 having the highest price at \$540.

The Data pane on the right side of the interface lists the fact\_HotelBooking table with its columns and their respective data types.

## 5.2 Exercise Add Tiles to a Dashboard

The screenshot shows the Power BI desktop application interface. A central dialog box is open, titled "保存报表" (Save Report), prompting the user to save the current report. The dialog includes fields for "为报表输入名称" (Enter report name) containing "Summary Dashboard of Booking Status" and "分配给任务" (Assign to task) with a dropdown menu set to "选择任务" (Select Task). At the bottom right of the dialog are "保存" (Save) and "取消" (Cancel) buttons.

The main workspace displays several tiles representing data visualizations:

- A top tile titled "快速摘要" (Quick Summary) for "KeZhang" showing summary statistics: 772192, 141748, 20040, 67477, 250, and \$936,505.41.
- A tile for "lead\_days 的总和" (Sum of lead\_days) showing a bar chart with categories Canceled and Not\_Canceled.
- A tile for "arrival\_month 的总和" (Sum of arrival\_month) showing a bar chart with categories Not\_Canceled and Canceled.
- A tile for "no\_of\_previous\_cancellations 的总和" (Sum of no\_of\_previous\_cancellations) showing a bar chart with values 0, 100, and 200.
- A tile for "avg\_price\_per\_room 的总和" (Sum of avg\_price\_per\_room) showing a bar chart with values \$0, \$500, INN05446 (\$279.2), and INN22774 (\$269.3).

The left sidebar contains various navigation icons and the "我的工作区" (My Workspace) section. The right sidebar shows the "你的数据" (Your Data) pane with a tree view of the data model, including tables like fact\_HotelBooking and dim\_room.

## 6. Exercise Share a Dashboard

The screenshot shows the Power BI workspace interface. On the left, there's a sidebar with various icons for creating new items, navigating, and monitoring. The main area is titled "My workspace" and contains a summary dashboard icon. Below it, there are buttons for "新建项" (New item), "新文件夹" (New folder), and "导入" (Import). A search bar and a filter section are also present. A modal window titled "发送链接" (Send link) is open, showing a checkmark and the message "Summary Dashboard of Booking Status 的链接已发送" (The link has been sent). In the background, a table lists several items: "Report 2025(Automatic)", "Revenue Opportunities", "Revenue Opportunities", "Security", "Security", and "Summary Dashboard of Booking Status". The table columns include Name, Type, Task, Owner, Last Refreshed, Next Refresh Time, Approval, and Sensitivity. At the bottom, the Windows taskbar shows various pinned apps like File Explorer, Edge, and Power BI, along with system status icons.

名称	类型	任务	所有者	已刷新	下次刷新时间	认可	敏感度
Report 2025(Automatic)	报表	—	My workspace	2025/3/21 09:33:58	—	—	—
Revenue Opportunities	报表	—	My workspace	2025/3/21 09:51:58	—	—	—
Revenue Opportunities	语义模型	—	My workspace	2025/3/21 09:51:58	不适用	—	—
Security	报表	—	My workspace	2025/3/28 10:28:52	—	—	—
Security	语义模型	—	My workspace	2025/3/28 10:28:52	不适用	—	—
Summary Dashboard of Booking Status	报表	—	My workspace	2025/3/28 10:07:33	—	—	—

7. Exercise How can I restrict the users with whom I share a link

The screenshot shows the Power BI workspace interface. A modal dialog titled "发送链接" (Share Link) is open, asking "希望链接适用于谁?" (Who should have access to the link?). The option "你组织中的人员" (People in your organization) is selected. Below the dialog, a table lists five items in the workspace:

名称	类型	刷新	下次刷新时间	认可	敏感度
Report 2025(Automatic)	报表	—	2025/3/21 09:33:58	—	—
Revenue Opportunities	报表	—	2025/3/21 09:51:58	—	—
Revenue Opportunities	语义模型	—	2025/3/21 09:51:58	不适用	—
Security	报表	—	2025/3/28 10:28:52	—	—
Security	语义模型	—	2025/3/28 10:28:52	不适用	—
Summary Dashboard of Booking Status	报表	—	2025/3/28 10:07:33	—	—

At the bottom right of the dialog, there are "应用" (Apply) and "取消" (Cancel) buttons.

## 8. Gateway Connection setup

The screenshot shows a Microsoft Edge browser window displaying the Power BI settings page for a dataset. The URL is <https://app.powerbi.com/groups/90176334-426c-4ae5-bcd8-02584455d21c/settings/datasets/60b93970-97a8-4c56-8f16...>. A modal dialog box titled "On-premises data gateway (personal mode)" is open, showing the following information:

- Status:** The gateway is online and ready to be used.
- Gateway version number:** 3000.262.7 (March 2025)
- Help us improve the on-premises data gateway (personal mode) by sending usage information to Microsoft:** A checked checkbox with a link to "Read the privacy statement online".

The background of the Power BI settings page shows a workspace with various datasets and connections. The taskbar at the bottom of the screen displays the Windows Start button, a search icon, and several pinned application icons, including Microsoft Word, Excel, and Power BI.

## 9. Exercise Schedule Data Refreshes

The screenshot shows the 'Data refresh' settings for a dataset in the Power BI service. The URL in the browser is <https://app.powerbi.com/groups/me/settings/datasets/60b93970-97a8-4c56-8f16-4372dd4ff95d?experience=power-bi>.

**刷新 (Refresh)**

时区 (Time zone): (UTC-06:00) 萨斯喀彻温

配置刷新计划 (Configure refresh schedule): 配置数据刷新计划，将数据从数据源导入语义模型。 [了解详细信息](#)

刷新频率 (Refresh frequency): 每周 (Weekly)

星期日 (Sunday)、星期一 (Monday)、星期二 (Tuesday)、星期三 (Wednesday)、星期四 (Thursday)、星期五 (Friday)、星期六 (Saturday) 均被选中。

时间 (Time): 1:00 上午

添加其他时间 (Add other times):

将刷新失败通知发送到 (Send refresh failure notifications to):

- 语义模型所有者 (Semantic model owner)
- 这些联系人: (These contacts)

请输入电子邮件地址 (Enter email address):

应用 (Apply) | 放弃 (Cancel)

系统状态栏显示: 试用还剩 52 天, 15, ENG, 2025-03-28, 11:56 AM

## 10. Exercise Publish a Report to the Web

