

# Introducing the Power BI Platform



# Agenda

- Understanding the Power BI Platform
- Creating a Trial Office 365 Tenant for Testing
- Creating Datasets, Reports and Dashboards
- Understanding Power BI Licensing
- Staying in Sync with Monthly Updates



# What is Business Intelligence?

- BI focuses on business health and performance
  - Gather insights into health of business processes
  - Take corrective actions in a timely fashion
- BI projects typically involve the following...
  - Integrate data from multiple sources
  - Perform data transformation and complex calculations
  - Analyze large data sets with rapid query response
  - Create insightful reports and visualizations
  - Provide insights that are “actionable”



# How is the BI Software Industry Changing?

- Software industry is experiencing new proliferation of data
  - Number of telemetry devices is increasing exponentially
  - Device-generated data is providing new business opportunities
  - Example: Uber has used geolocation data to disrupt taxi industry
- Traditional BI and analytics models are being disrupted
  - New analytics capabilities available with new types of data sources
  - Data discovery and unstructured data analytics are new frontiers
  - Demand for self-service BI tools are on the rise
  - Balance of power shifting from IT to business divisions



# What is Power BI?

- What is Power BI?
  - Cloud-based subscription service
  - Environment which promotes self-service BI *to the end user*
  - BI Platform to assists with data import, analysis and visualization
- Power BI benefits from being a cloud-based service
  - It takes only 5 seconds to subscribe to the Power BI service
  - New users can create something significant in 5 minutes or less
- Power BI adoption numbers *(as of Q1 2016)*
  - 5 million subscribers
  - 200,000 organizations
  - 40 different languages





# Power BI Benefits from Microsoft Azure

- Power BI is built on top of Microsoft Azure
  - Power BI solutions can be scaled as required
  - Power BI solutions have global reach



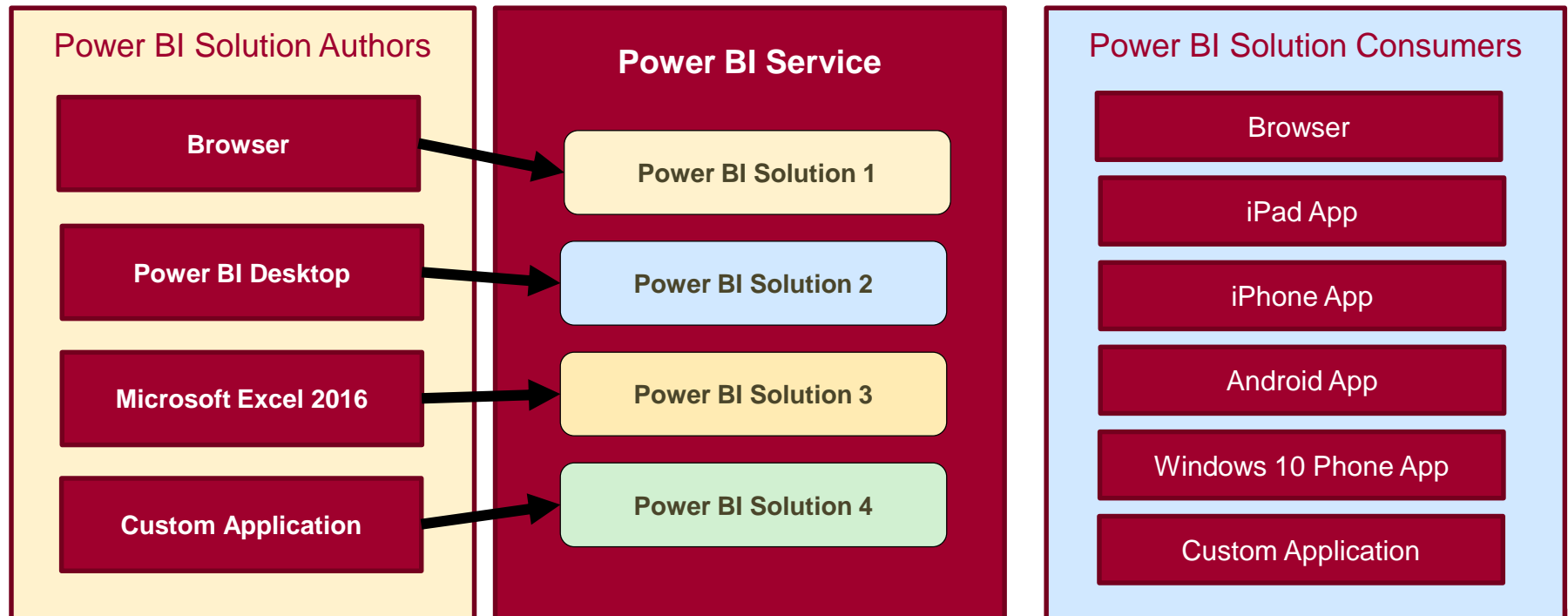
# The Power BI Service

- The Power BI Service
  - Provides cloud-based foundation for Power BI platform
  - Accessible through browser at <https://app.powerbi.com>



# Power BI Service Architecture

- Power BI support for authors and consumers
  - BI solution authors have a choice in authoring tools
  - BI solutions consumers can use wide range of devices





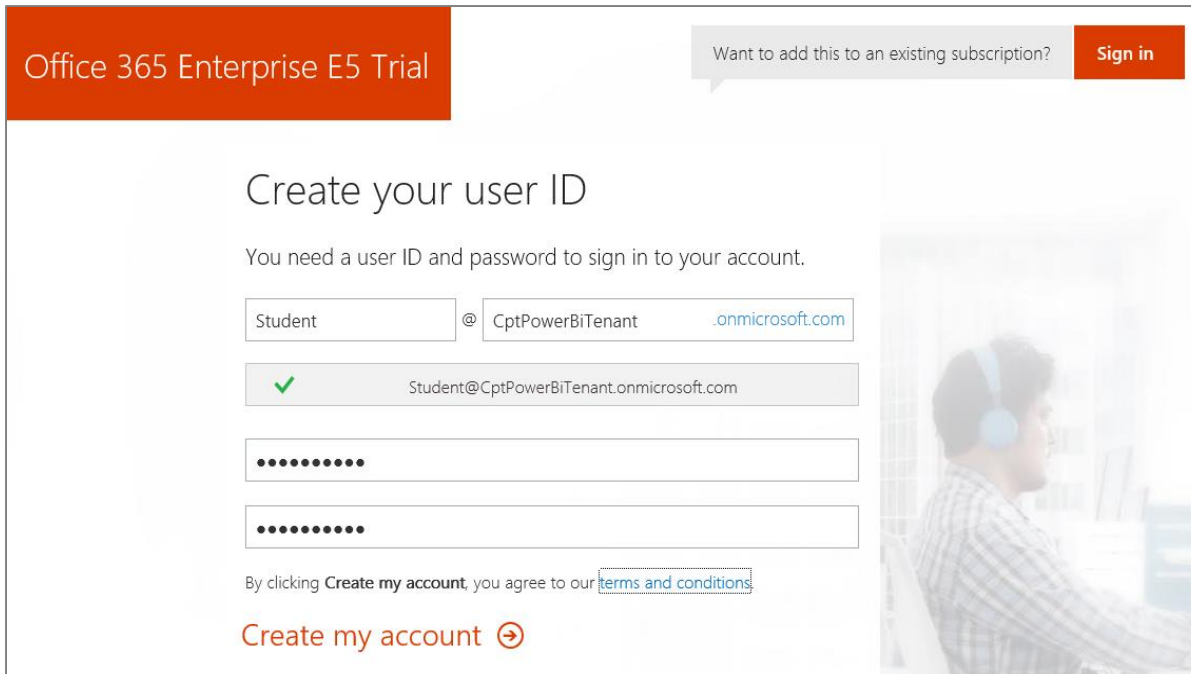
# Agenda

- ✓ Understanding the Power BI Platform
- Creating a Trial Office 365 Tenant for Testing
  - Creating Datasets, Reports and Dashboards
  - Understanding Power BI Licensing
  - Staying in Sync with Monthly Updates



# Creating a Power BI Testing Environment

- Sign up for an Office 365 Enterprise E5 trial account
  - Creates a new Office 365 tenant
  - Creates an account which is tenant administrator
  - You can create 25 user accounts for testing purposes
  - You can create and test Office 365 unified groups



The screenshot shows the 'Office 365 Enterprise E5 Trial' sign-up page. At the top left, there is an orange banner with the text 'Office 365 Enterprise E5 Trial'. To the right of this banner, there is a grey box with the text 'Want to add this to an existing subscription?' and an orange 'Sign in' button. The main heading is 'Create your user ID'. Below this, it says 'You need a user ID and password to sign in to your account.' There are two input fields: the first contains 'Student' and the second contains 'CptPowerBiTenant.onmicrosoft.com'. Below these fields, there is a green checkmark icon and the text 'Student@CptPowerBiTenant.onmicrosoft.com'. There are two more input fields, both containing dots, representing password fields. At the bottom, there is a link to 'terms and conditions' and a 'Create my account' button with a right arrow icon. On the right side of the page, there is a blurred image of a person wearing a headset and working at a computer.

Office 365 Enterprise E5 Trial

Want to add this to an existing subscription? [Sign in](#)

## Create your user ID

You need a user ID and password to sign in to your account.

Student @ CptPowerBiTenant .onmicrosoft.com

✓ Student@CptPowerBiTenant.onmicrosoft.com

.....

.....

By clicking **Create my account**, you agree to our [terms and conditions](#)

**Create my account** ➔



# Office 365 admin center

- Chores to accomplish in Office 365 admin center
  - Learn how to add secondary user accounts for testing
  - Learn how to view and manage groups

The screenshot displays the Office 365 Admin Center interface. The left-hand navigation pane includes links for Home, Users, Active users (selected), Contacts, Deleted users, Data migration, Groups, and Resources. The main content area is titled 'Home > Active users' and shows a list of active users. At the top of the list, there are controls for adding users, filters, and a search bar. The user list includes columns for checkboxes, display names, user names, and status. Below the list, there are three informational cards: '+ User', 'Types of users', and 'Filters'.

Office 365 | Admin center preview

Home > Active users

Power BI Bootcamp Labs

+ Add a user | More | Filters | All users | Search | Export

<input type="checkbox"/>	Display name ^	User name	Status
<input type="checkbox"/>	James Bond	JamesB@PowerBiBootcamp.onmicrosoft.com	Office 365 Enterprise E5
<input type="checkbox"/>	Ted Pattison	Student@PowerBiBootcamp.onmicrosoft.com	Office 365 Enterprise E5

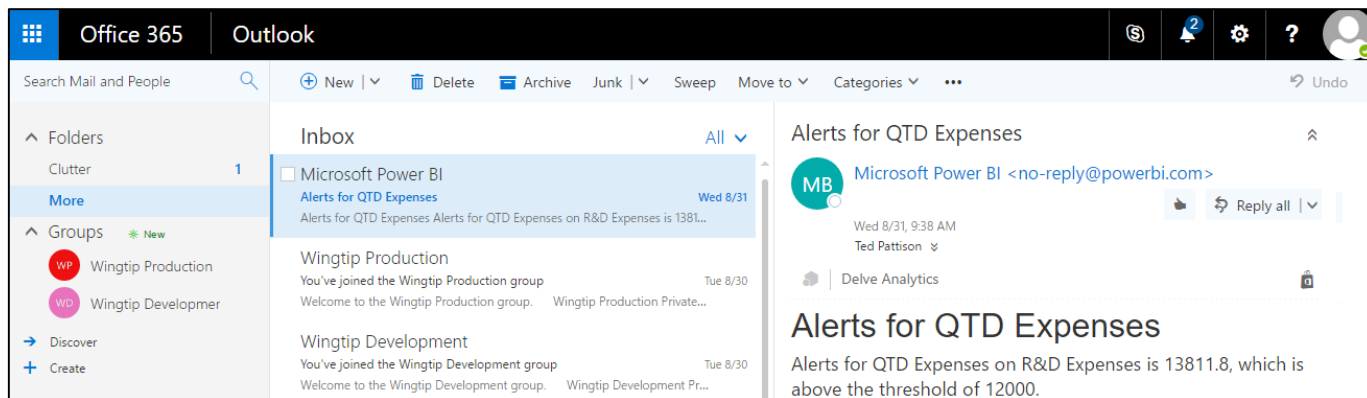
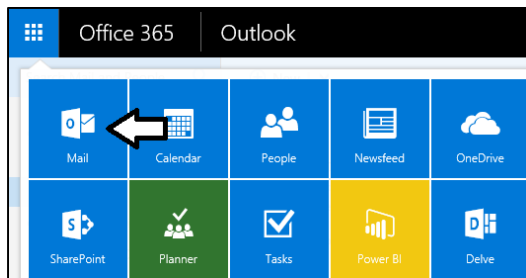
+ User | Types of users | Filters

Users are people in your organization who can access Office 365. | Different types of users and accounts can use Office 365 in distinct ways. | Learn how filtering will help you keep this list under control – before it gets too long.



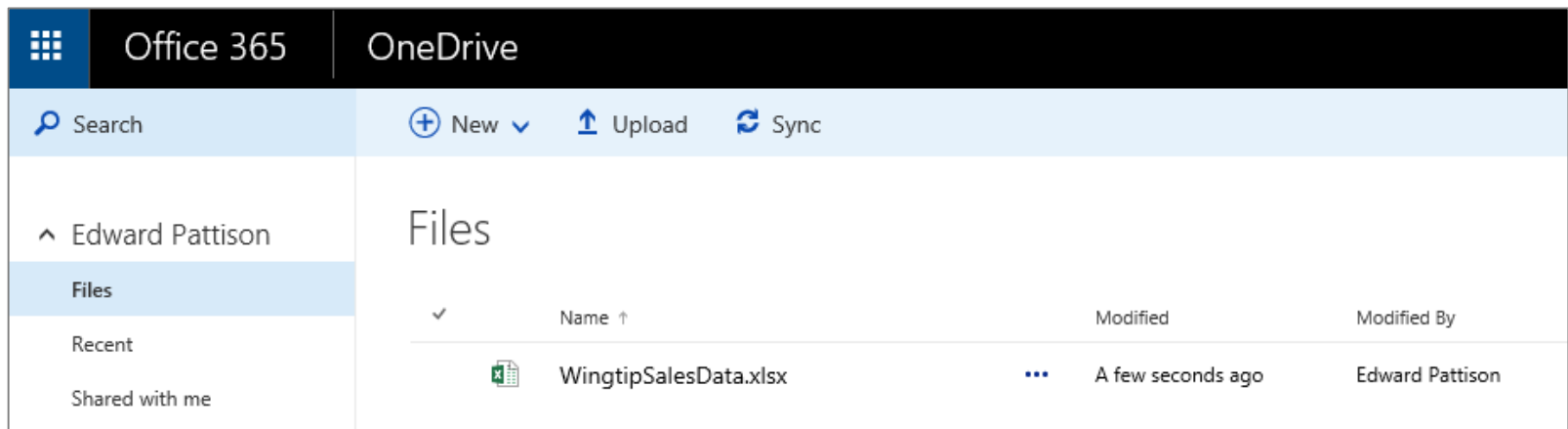
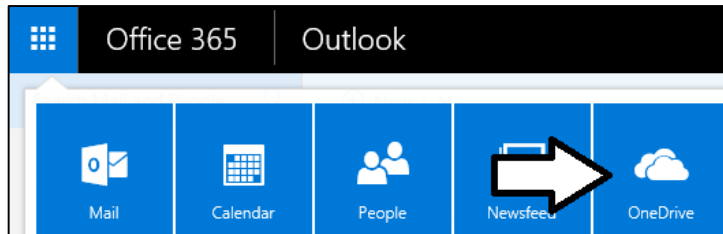
# Accessing Your Office 365 Mailbox

- Make sure you can access your Exchange Inbox
  - Accessible in browser using Outlook Web App (OWA)
  - View messages sent by Power BI service
  - View and interact with Office 365 groups



# Uploading Data Files to OneDrive for Business

- Preferred location for data files consumed by Power BI service
  - Excel workbooks
  - CSV files
  - PBIX files created using Power BI Desktop







**DEMO**

# **Managing Users and Subscriptions in the Office 365 admin center**

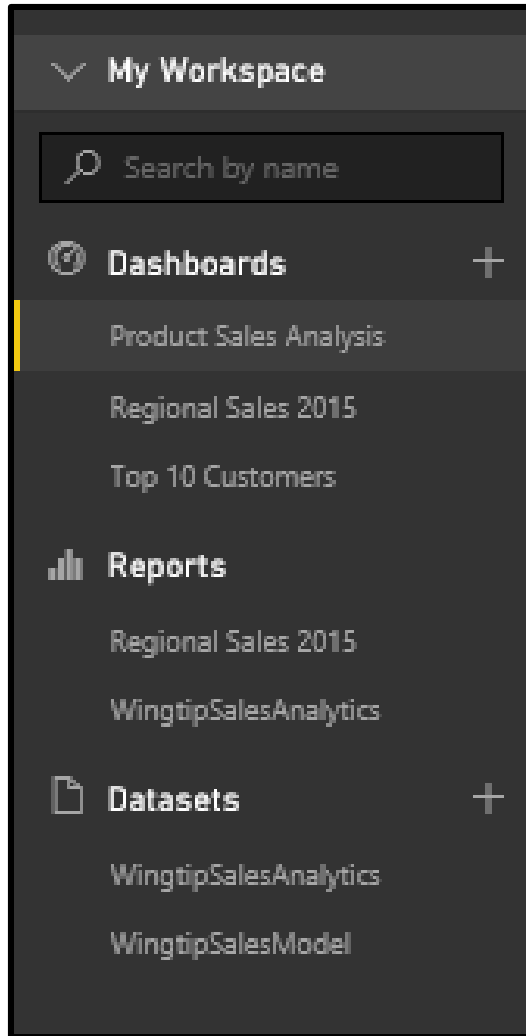


# Agenda

- ✓ Understanding the Power BI Platform
- ✓ Creating a Trial Office 365 Tenant for Testing
- Creating Datasets, Reports and Dashboards
  - Understanding Power BI Licensing
  - Staying in Sync with Monthly Updates



# Central Power BI Concepts

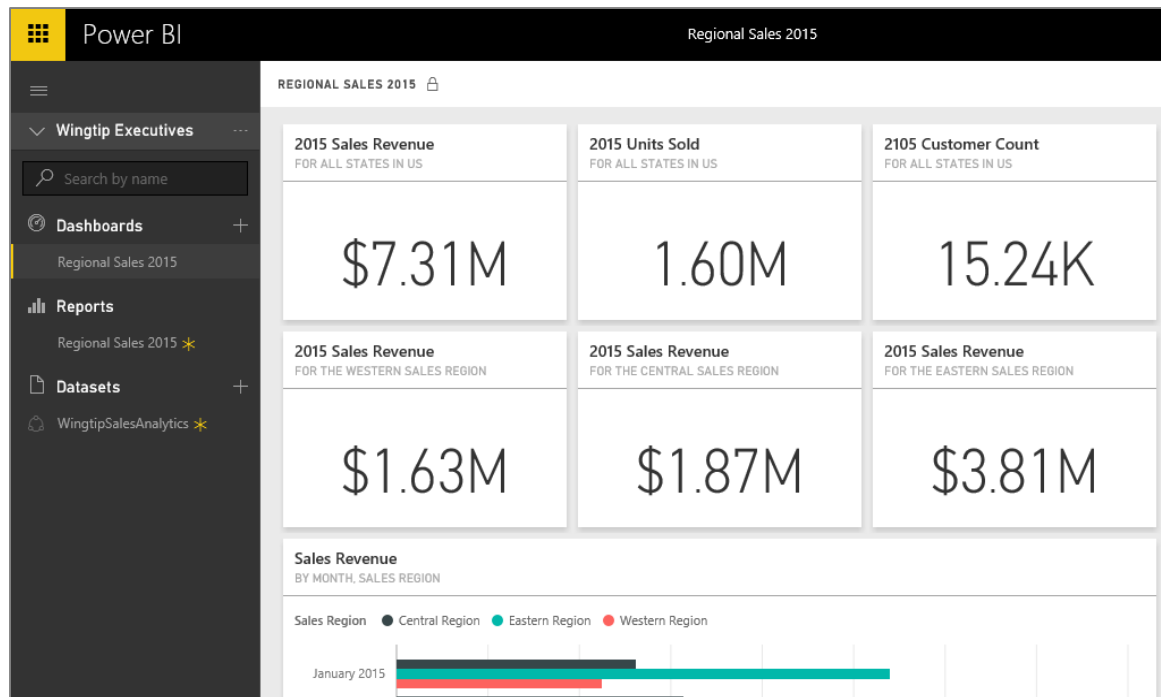


- **Workspace**
  - Provides user context and asset container
  - Every user has personal workspace
  - Team development requires group workspaces
- **Dashboard**
  - Consolidated view into reports and datasets
  - Custom solution entry point for mobile users
- **Report**
  - Collection of pages with tables & visualizations
  - Provides interactive control of filtering
- **Dataset**
  - Data model containing one or more tables
  - Can be very simple or very complex



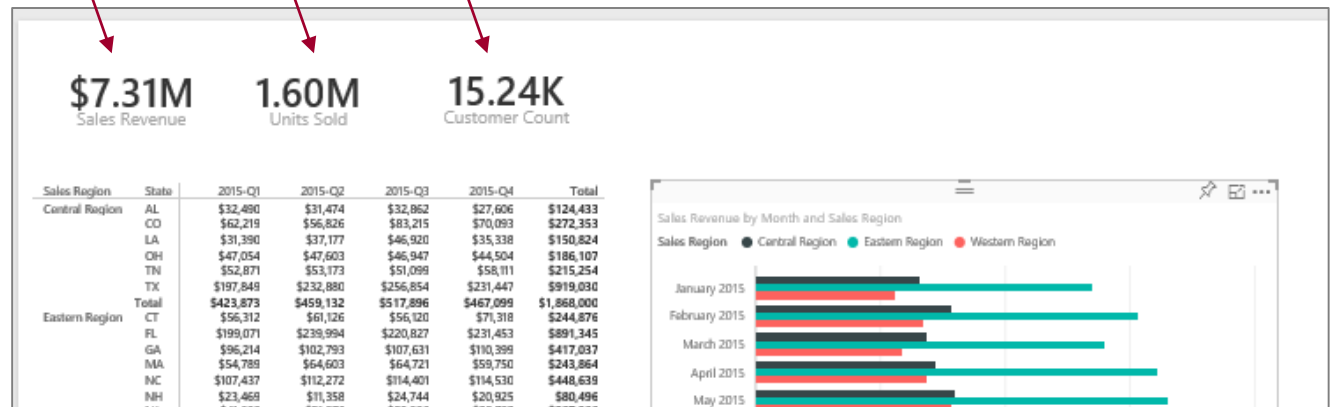
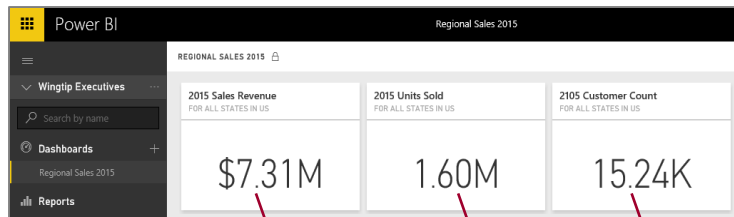
# Dashboards and Tiles

- Dashboard is a collection of tiles
  - Tile can be created by pinning visual from a report
  - Tile can be created by pinning query result from dataset



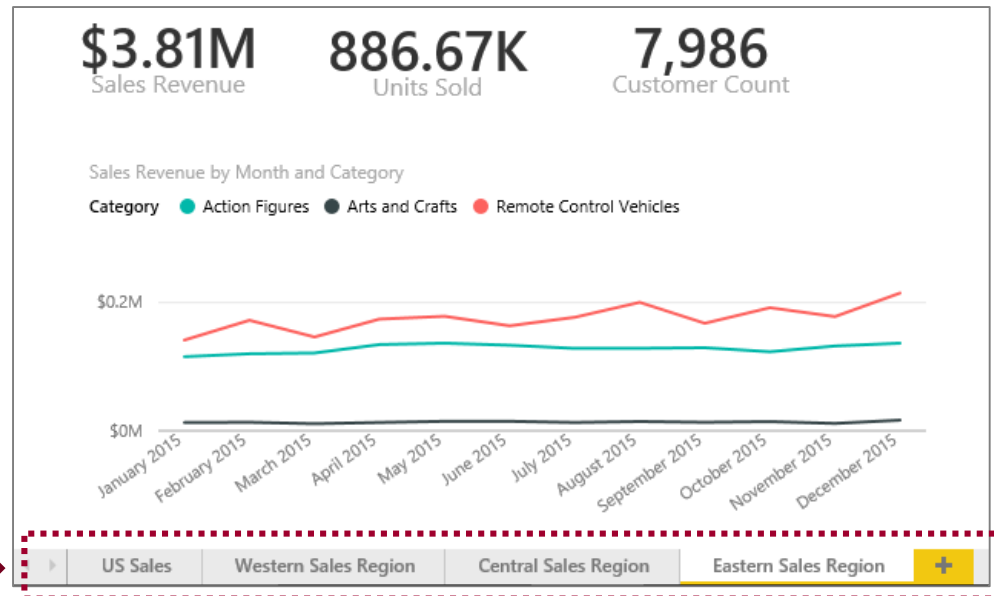
# Dashboards and Reports

- Dashboards link users to reports
  - Dashboard tiles designed to provide high-level view
  - Clicking tiles drills down into report to see more detail



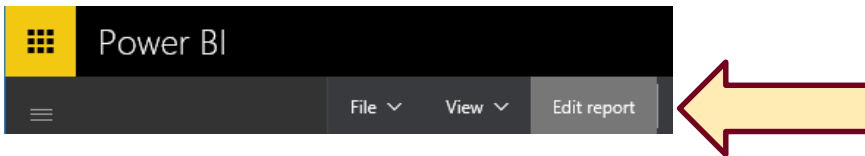
# Reports and Pages

- Reports contain one or more pages
  - A report can be designed with a single page
  - A report can be designed with many pages
  - Tabbed navigation located at bottom of report view
  - Each report is associated with exactly one dataset



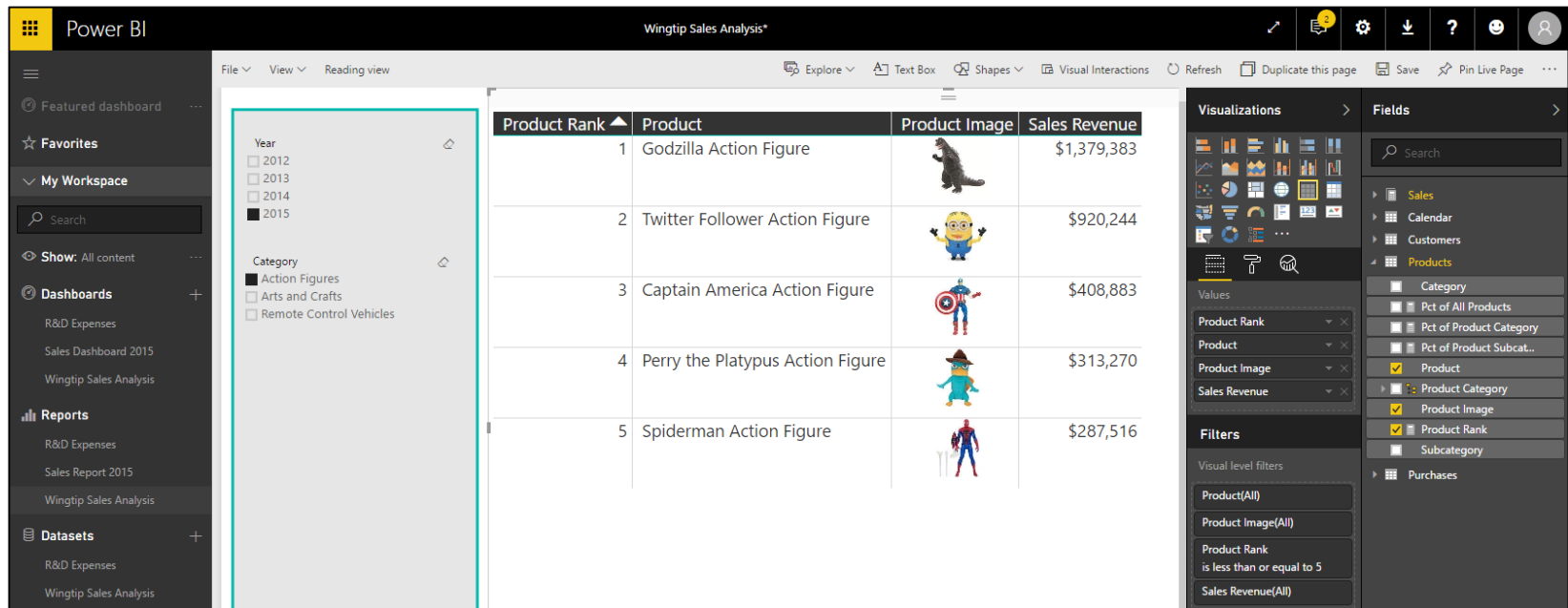




# Report Authoring

- Report initially opens in reading view
  - Click Edit report to switch to edit mode



- Report design tools appear on right side of page

The screenshot shows the Power BI report authoring interface in edit mode. The top bar includes the Power BI logo, the report title 'Wingtip Sales Analysis\*', and various action buttons like 'Explore', 'Text Box', 'Shapes', 'Visual Interactions', 'Refresh', 'Duplicate this page', 'Save', and 'Pin Live Page'. The left sidebar contains navigation options: 'Featured dashboard', 'Favorites', 'My Workspace' (with a search bar), 'Show: All content', 'Dashboards' (listing 'R&D Expenses', 'Sales Dashboard 2015', and 'Wingtip Sales Analysis'), 'Reports', and 'Datasets' (listing 'R&D Expenses' and 'Wingtip Sales Analysis'). The main area displays a table with the following data:

Product Rank	Product	Product Image	Sales Revenue
1	Godzilla Action Figure		\$1,379,383
2	Twitter Follower Action Figure		\$920,244
3	Captain America Action Figure		\$408,883
4	Perry the Platypus Action Figure		\$313,270
5	Spiderman Action Figure		\$287,516

On the right side, the 'Visualizations' pane shows various chart types. The 'Fields' pane shows the data model with 'Sales' (Calendar, Customers, Products) and 'Products' (Category, Pct of All Products, Pct of Product Category, Pct of Product Subcategory, Product, Product Category, Product Image, Product Rank, Subcategory). The 'Filters' pane shows filters for 'Product Rank' (less than or equal to 5) and 'Sales Revenue' (All).



# Visuals (aka Visualizations)

- Reports are designed using visual (aka visualizations)
  - Each visual is based on an underlying visualization type
  - Visualization type can be changed using **Visualizations** pane

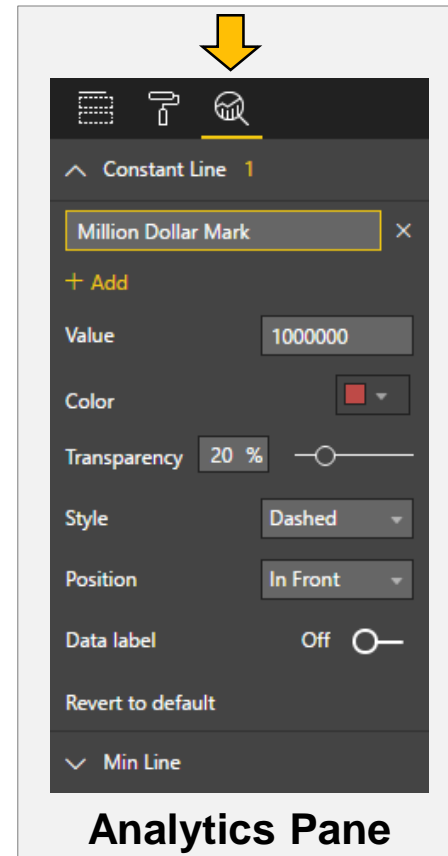
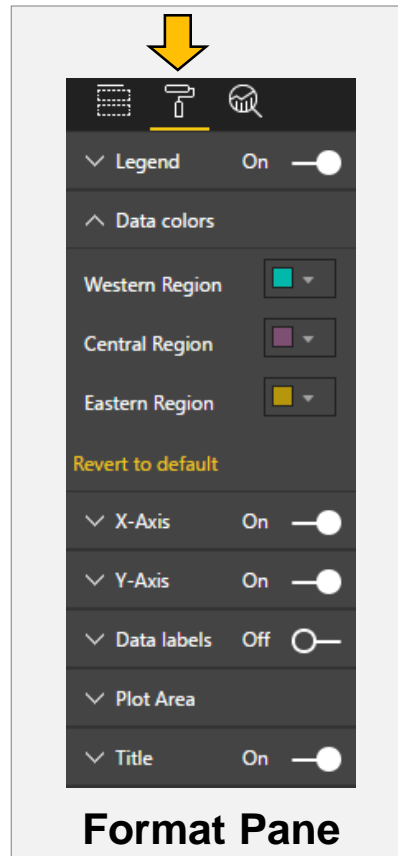
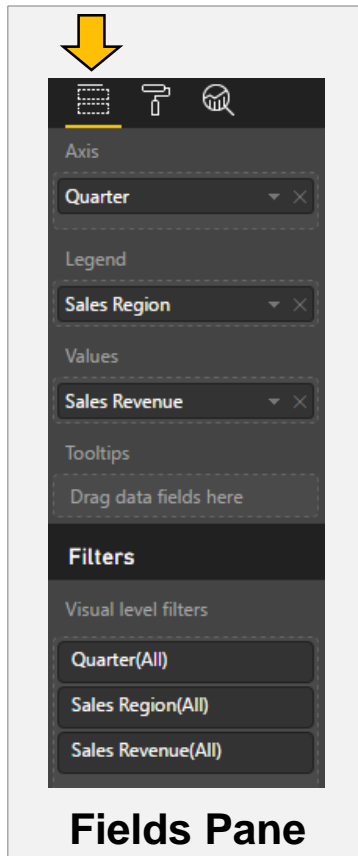


- Visuals creating by using fields from tables inside **Fields** list



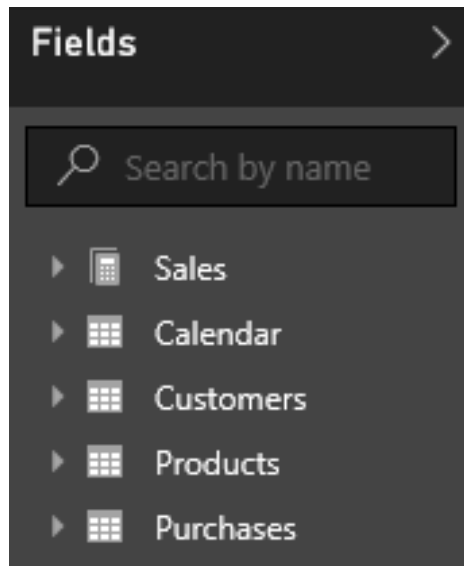
# Editing Visual Properties

- Visual properties modified using three property panes
  - Visual properties vary greatly depending on type of visualization



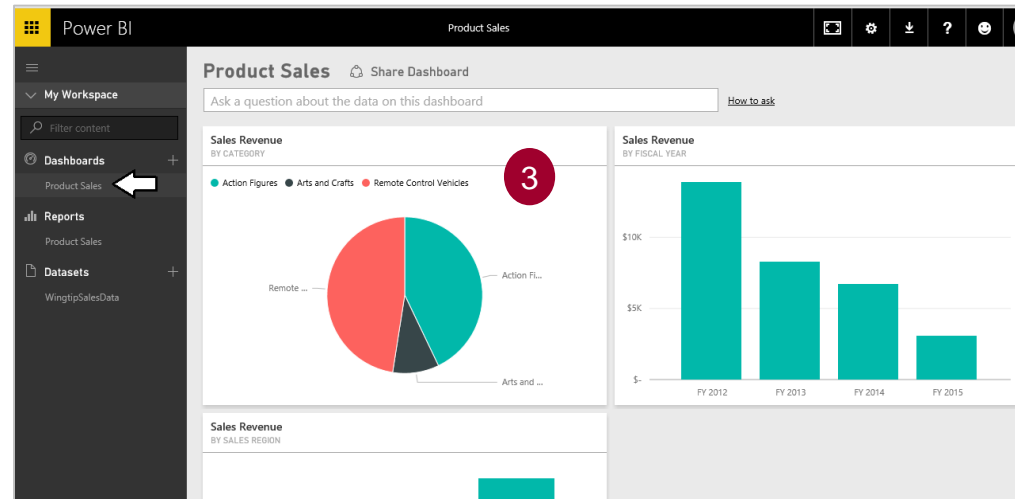
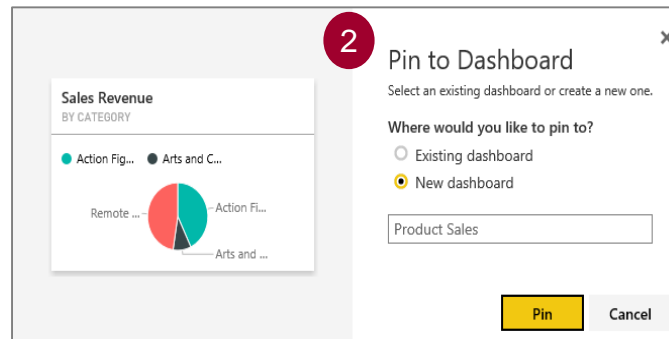
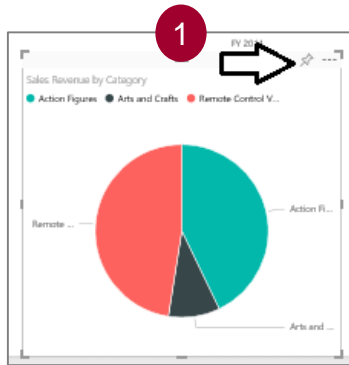
# Report and Datasets

- Each report is based on an underlying dataset
  - **Fields** list in report designer shows tables and fields
  - Report author sees tables & fields as dataset consumer



# Creating Dashboards

- Dashboards contain tiles
- Tiles created from visuals on report pages







**DEMO**

# Getting started with Datasets, Reports and Dashboards

# Agenda





- ✓ Understanding the Power BI Platform
- ✓ Creating a Trial Office 365 Tenant for Testing
- ✓ Creating Datasets, Reports and Dashboards
- Understanding Power BI Licensing
  - Staying in Sync with Monthly Updates









# Power BI Licensing

- User-based licensing

<p>Power BI (free)</p> <p>\$0.00 user/month</p> <p>A cloud-based business analytics service that enables anyone to visualize and analyze data with greater speed, efficiency, and understanding. It ...</p> <p>Office 2016 desktop &amp; mobile apps Not included</p> <p>Office 365 services </p> <p>...</p>	<p>Power BI Pro</p> <p>\$9.99 user/month</p> <p>A cloud-based business analytics service that enables anyone to visualize and analyze data with greater speed, efficiency, and understanding. Power ...</p> <p>Office 2016 desktop &amp; mobile apps Not included</p> <p>Office 365 services </p> <p>...</p>	<p>Office 365 Enterprise E5</p> <p>\$35.00 user/month</p> <p>The Office suite, plus email, instant messaging, HD video conferencing, 1 TB personal file storage and sharing, and advanced security, analytics and PSTN ...</p> <p>Office 2016 desktop &amp; mobile apps </p> <p>Office 365 services </p> <p>...</p>
---	---	---

- Capacity-based Licensing

<p>Power BI Premium P1</p> <p>\$4,995.00 instance/month</p> <p>Power BI capacity dedicated to your organization, unlocking unlimited content distribution and dependable performance. P1 offers 8 virtual cores ...</p> <p>Office 2016 desktop &amp; mobile apps Not included</p> <p>Office 365 services </p> <p>...</p>	<p>Power BI Premium P2</p> <p>\$9,995.00 instance/month</p> <p>Power BI capacity dedicated to your organization, unlocking unlimited content distribution and dependable performance. P1 offers 16 virtual cores ...</p> <p>Office 2016 desktop &amp; mobile apps Not included</p> <p>Office 365 services </p> <p>...</p>	<p>Power BI Premium P3</p> <p>\$19,995.00 instance/month</p> <p>Power BI capacity dedicated to your organization, unlocking unlimited content distribution and dependable performance. P1 offers 32 virtual cores ...</p> <p>Office 2016 desktop &amp; mobile apps Not included</p> <p>Office 365 services </p> <p>...</p>	<p>Power BI Premium EM3 (Month to Month)</p> <p>\$2,495.00 instance/month</p> <p>Embed Power BI content in your custom application, powered by 4 virtual cores of dedicated capacity. Some Premium features are disabled ...</p> <p>Office 2016 desktop &amp; mobile apps Not included</p> <p>Office 365 services </p> <p>...</p>
---	--	---	--



# Agenda

- ✓ Understanding the Power BI Platform
- ✓ Creating a Trial Office 365 Tenant for Testing
- ✓ Creating Datasets, Reports and Dashboards
- ✓ Understanding Power BI Licensing
- Staying in Sync with Monthly Updates

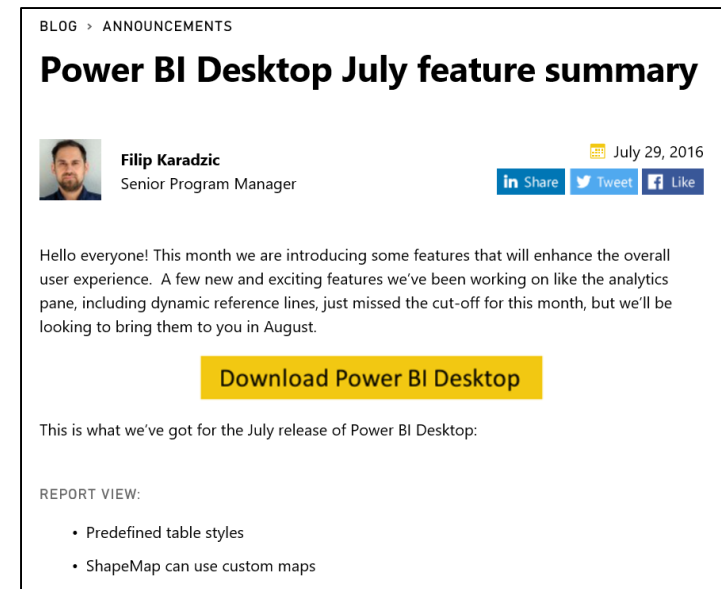
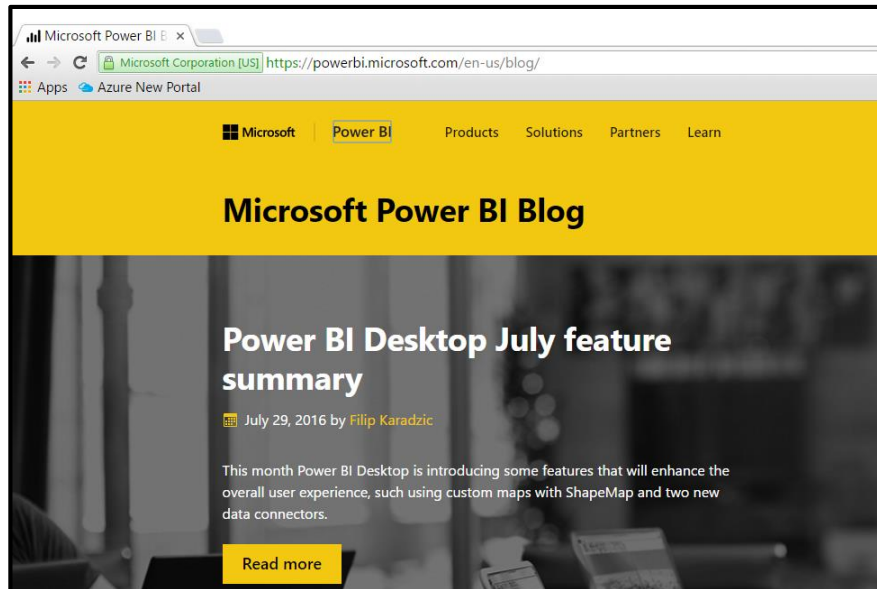


# Power BI Team Blog

- Power BI Team Blog is an Essential Resource

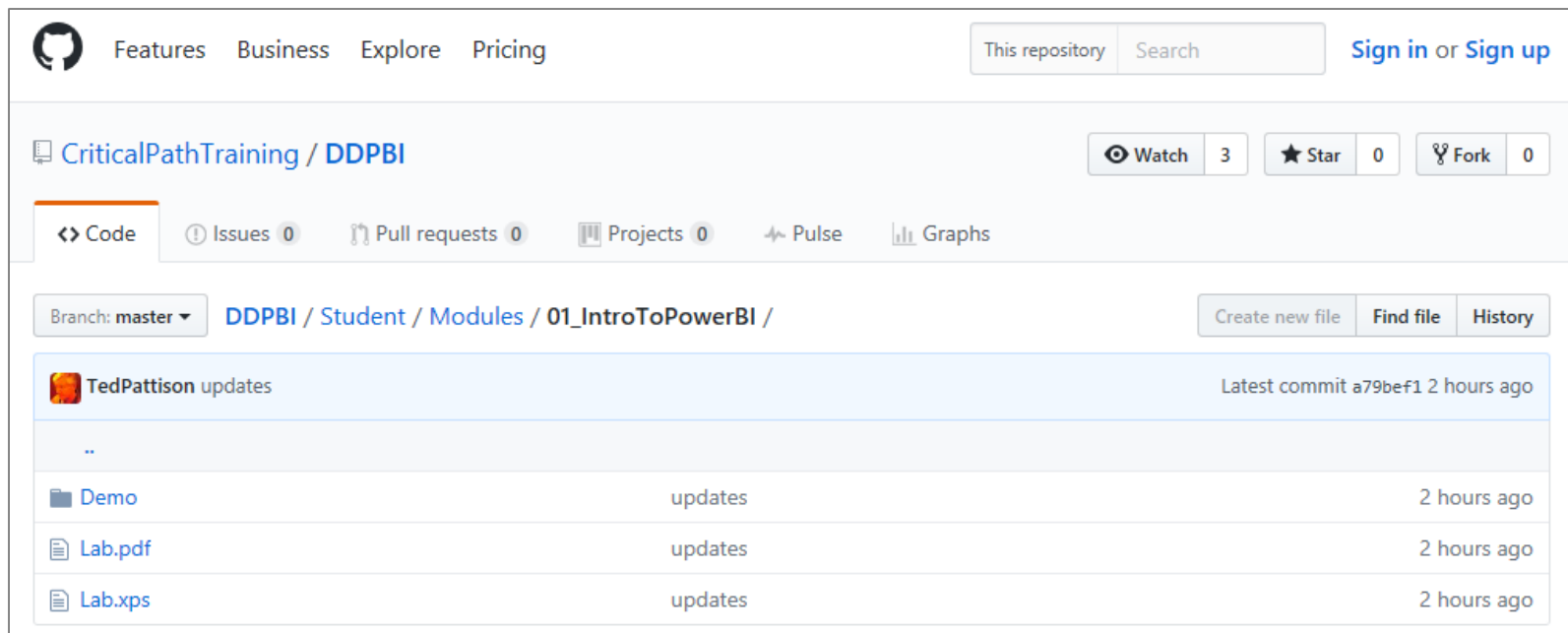
<https://powerbi.microsoft.com/en-us/blog/>

- Be on the lookout for monthly updates



# Live Labs for DDPBI

- Student files for this course maintained in GitHub
  - Students files updated on a monthly basis
  - Lab write-ups available in PDF and XPS formats
  - Go to <https://github.com/CriticalPathTraining/DDPBI>



GitHub repository page for CriticalPathTraining / DDPBI.

Navigation: Features, Business, Explore, Pricing. Search: This repository, Search. Sign in or Sign up.

Repository: CriticalPathTraining / DDPBI. Watch: 3, Star: 0, Fork: 0.

Code, Issues (0), Pull requests (0), Projects (0), Pulse, Graphs.

Branch: master. DDPBI / Student / Modules / 01\_IntroToPowerBI /

Create new file, Find file, History.

TedPattison updates. Latest commit a79bef1 2 hours ago.

File	Update	Time
Demo	updates	2 hours ago
Lab.pdf	updates	2 hours ago
Lab.xps	updates	2 hours ago



# Summary

- ✓ Understanding the Power BI Platform
- ✓ Creating a Trial Office 365 Tenant for Testing
- ✓ Creating Datasets, Reports and Dashboards
- ✓ Understanding Power BI Licensing
- ✓ Staying in Sync with Monthly Updates

