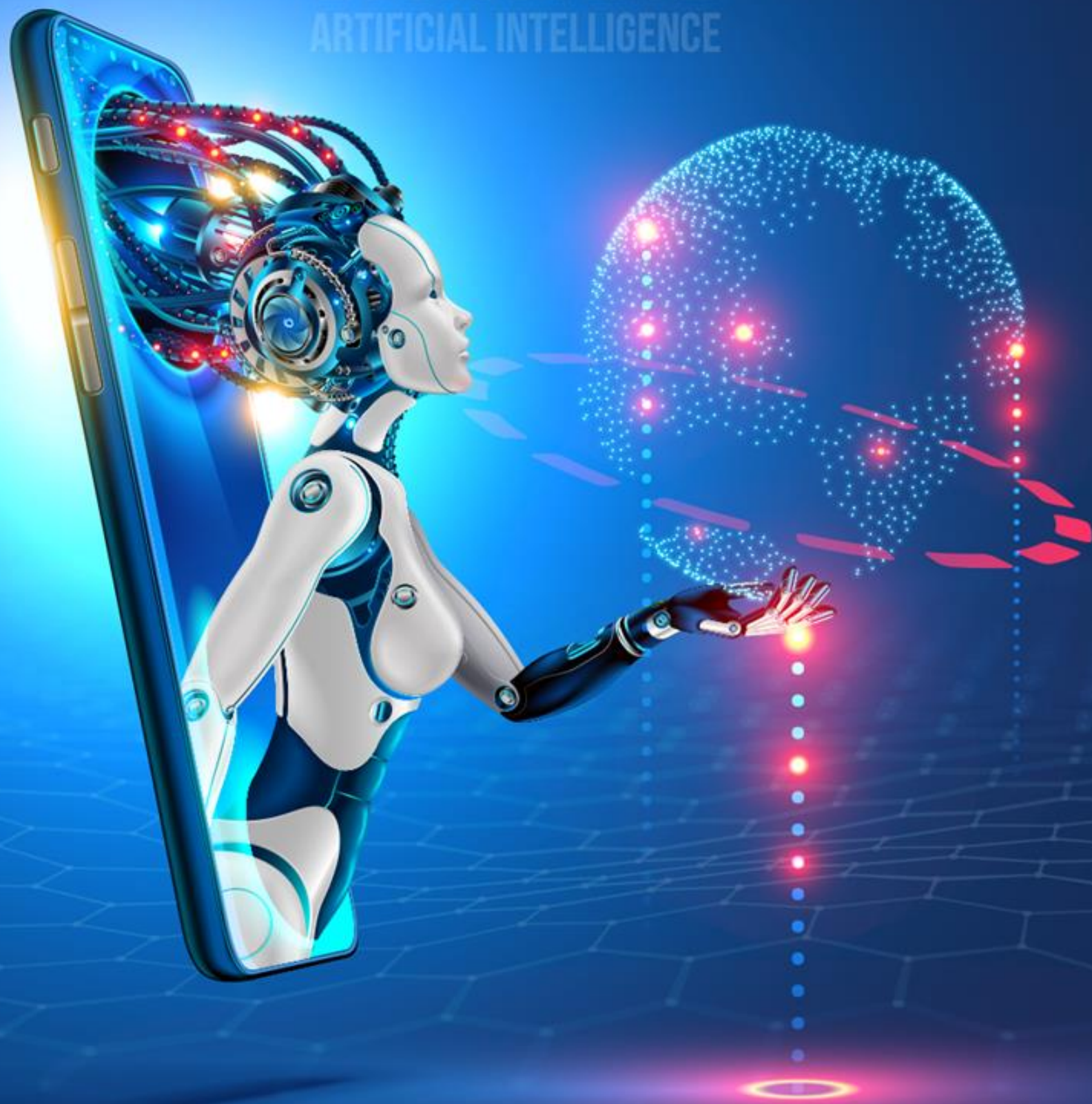


# DATA AND ARTIFICIAL INTELLIGENCE



## Data Manipulation and Reporting with Power BI

# DATA AND ARTIFICIAL INTELLIGENCE



## Introduction to Power BI



# Learning Objectives

By the end of this lesson, you will be able to:

- Understand the concepts of business intelligence and Power BI
- Understand the architecture of Power BI
- Identify the different offerings by Power BI
- Know the benefits and applications of Power BI
- Install a Power BI desktop



## Overview of Business Intelligence and Power BI

# What Is Business Intelligence?

- ✓ Capability to make intelligent business decisions
- ✓ Makes information discovery simple
- ✓ Helps you in analysis of the data
- ✓ Enables you to send the right information to the right people
- ✓ Provides data insights to everyone from any type / size / source of data

# What is Business Intelligence?

- ✓ Power BI is a self-service cloud based BI tool, which can be used for reporting and data analysis from a variety of data sources.
- ✓ Power BI provides a simple and user-friendly drag and drop interface so that users can work with it and get benefits from it.
- ✓ Power BI produces highly interactive and beautiful graphs, dashboards, and reports in a matter of minutes.

# Why Power BI?

- You can create a report and perform data manipulation easily.
- Power BI provides a 360-degree view to visualize the data and publish the resulting content.
- It supports natural query language.
- It allows you to fetch data from 60 different data sources.
- You can connect your data live or save it on your local machine.
- The product updates happen frequently and regularly.
- Power BI offers a simple learning curve.
- Performance of Power BI is much better as compared to the other BI tools in market.

## Power BI Architecture, Components, and Products



# Power BI Offerings

You can choose from four different products that suit your need. They are:

Power BI

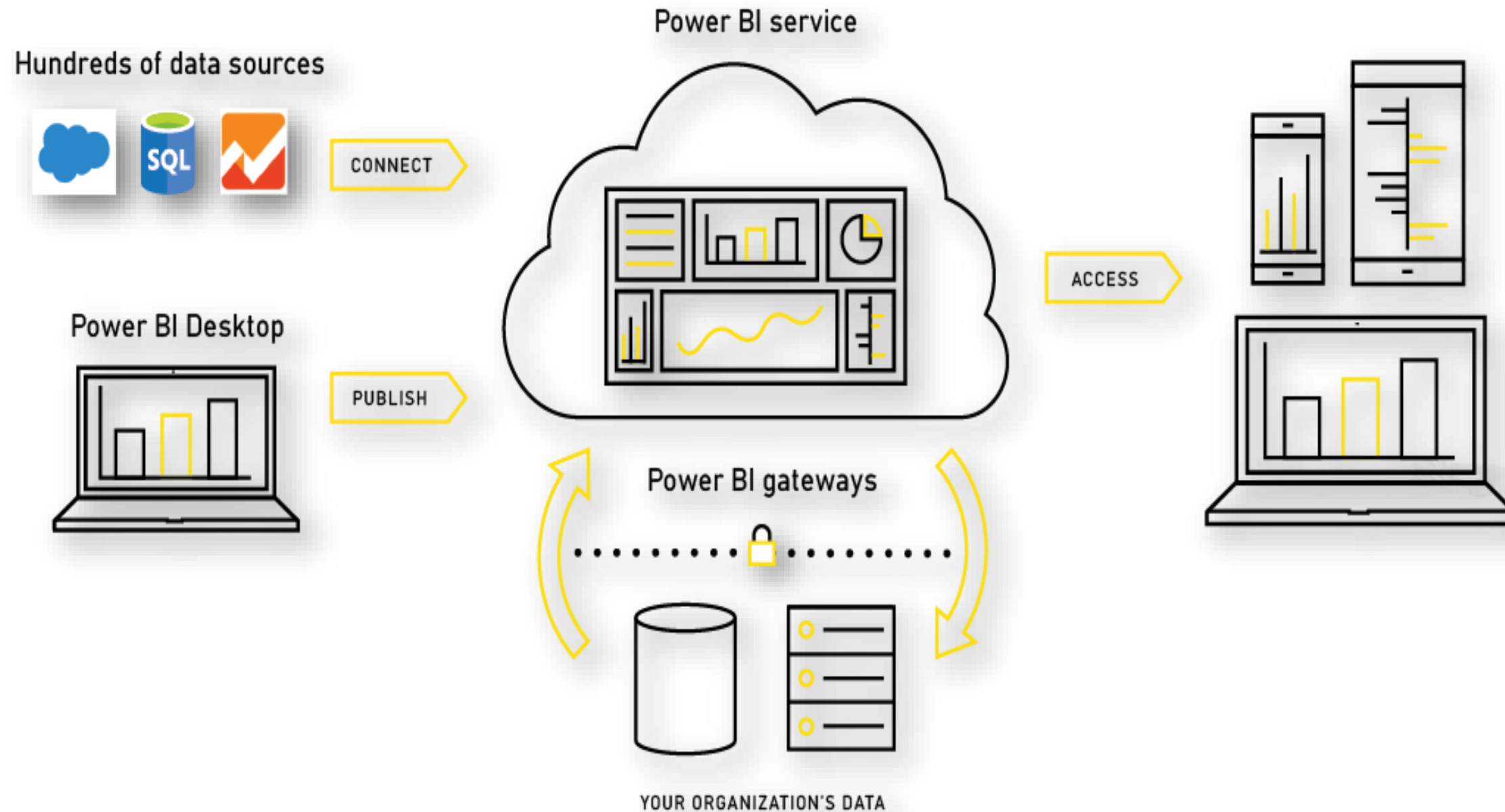
Power BI Desktop

Power BI Mobile

Power BI Embedded



# Power BI Desktop Architecture



# Power BI Desktop Components

Power BI Desktop uses three components to perform different operations. They are:

Power Query

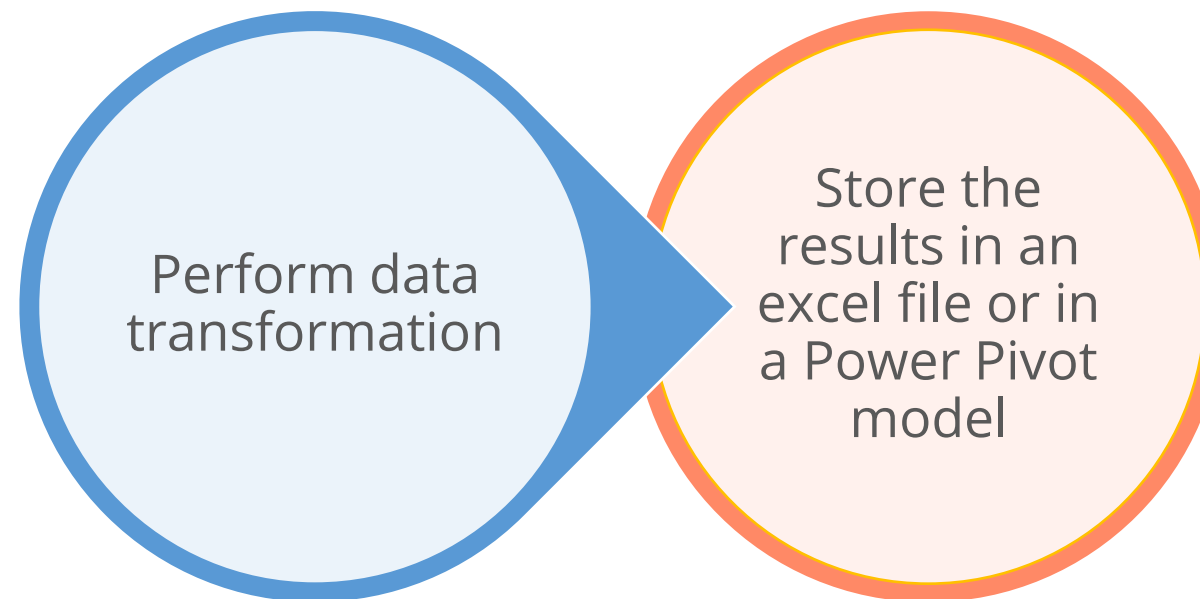
Power Pivot

Power View



# Power BI Desktop Components—Power Query

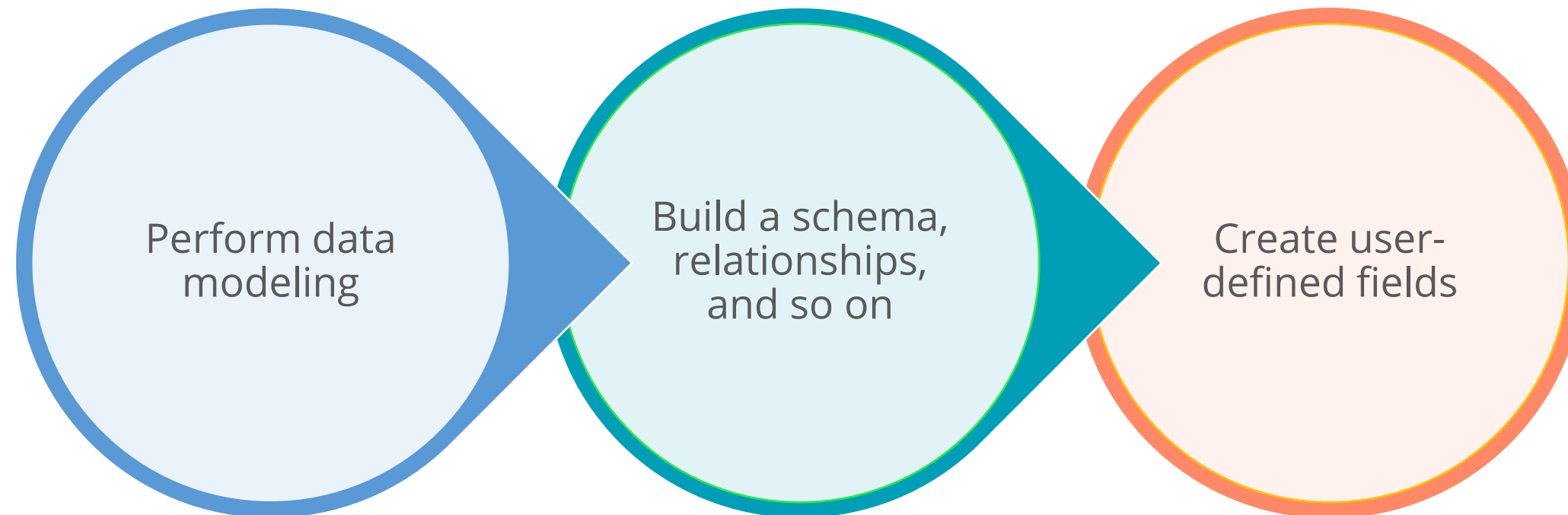
Power BI Desktop uses Power Query to:





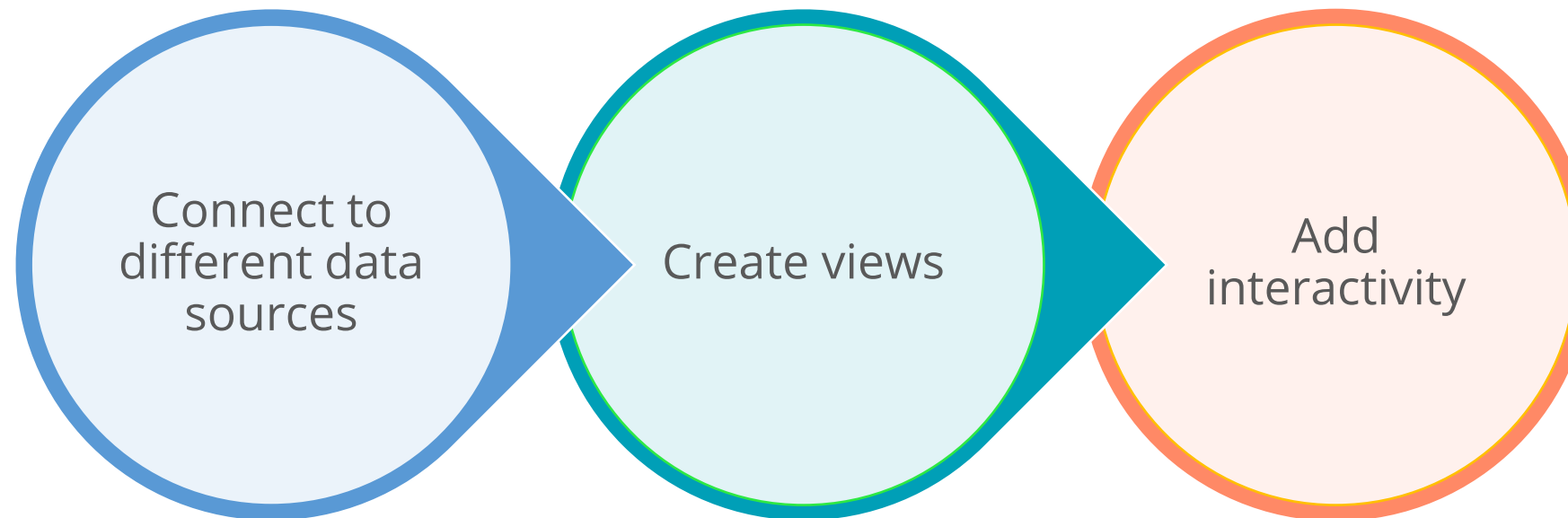
# Power BI Desktop Components—Power Pivot

With Power Pivot you can:



# Power BI Desktop Components— Power View

Power View allows you to:



## **System Requirements and Installation**

# Minimum Hardware Requirements

Before you install Power BI Desktop, your system should meet the minimum hardware requirements. They are:

- Windows 7 / Windows Server 2008 R2, or later
- .NET 4.5
- Internet Explorer 9 or later
- 1 gigahertz (GHz) or faster x86- or x64-bit processor
- At least 1440x900 or 1600x900 (16:9)
- Minimum 1 GB space should be available, Recommended available space should be 1.5 GB or more





# Steps to Install Power BI Desktop

Here are the steps to install Power BI Desktop on your system.

Open a browser and navigate to the Power BI page.

Click on the **Download Free** button and enter the required details.

Click the **Get Started** button.

Locate the installed file and run it.

Follow the on-screen instructions.





## Knowledge Check

## Knowledge Check

1

Is it possible to publish a dashboard using Power BI Desktop?

- a. Yes
- b. No



## Knowledge Check

1

Is it possible to publish a dashboard using Power BI Desktop?

- a. Yes
- b. No



The correct answer is **b**

**The Power BI Desktop application only allows you to build and publish reports.**



**Knowledge  
Check**

**2**

**Which type of device can be used to access a dashboard designed using a web layout?**

- a. Laptop
- b. Mobile device
- c. Laptop and mobile device
- d. None



Knowledge  
Check

2

Which type of device can be used to access a dashboard designed using a web layout?

- a. Laptop
- b. Mobile device
- c. Laptop and mobile device
- d. None



The correct answer is **c**

**Both mobile device and laptop can be used to access a dashboard designed using a web layout.**

# Key Takeaways

Now, you are able to:

- Understand the concepts of business intelligence and Power BI
- Understand the architecture of Power BI
- Identify the different offerings by Power BI
- Know the benefits and applications of Power BI
- Install a Power BI desktop

