Microsoft

# Business Analytics with Power BI

Microsoft Services

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# Module 3: Predictive Analytics with Power BI and R

## Lesson 1: Introduction

# Power BI and R Module Objectives

- After completing this learning unit, you will be able to describe what is machine learning and its objectives
- You will learn the basics of R language and how to create machine learning models using it
- You will use R integrated with Power BI to achieve great flexibility with R as a data source and R visuals
- To close this learning unit, you will see an introduction to Azure Machine Learning and a strategy to integrate with Power BI and R

# Agenda

- Machine Learning Introduction
  - Introduction to Machine Learning
  - Real World Problems
  - Basic Concepts
  - Machine Learning Algorithms
  - Quiz

# Agenda

- Introduction to R language
  - Introduction to R
  - Integrated Development Environments (IDEs)
  - Basic R Concepts
  - Vector, Matrix, Factor and Data Frames
  - Lab 1 Exercise 1: R Programming
  - Extending with New Packages
  - Plotting Data
  - Lab 1 Exercise 2: Plotting Data
  - Creating Machine Learning models with R
  - Lab 2 – Machine Learning Model with R

# Agenda

- Using R with Power BI
  - Using R as a Data Source
  - Lab 3 Exercise 1: Using R as a Data Source
  - Introduction to R Visuals
  - Data Refreshing
  - Lab 3 Exercise 2: R Visuals

# Agenda

- AzureML Overview
  - Azure Machine Learning Overview
  - Lab 04 – Using AzureML and Power BI