Course Outline

This course is divided into three modules. It is recommended that you set a goal for yourself to complete the modules (for example, one module per week).

Module 1: IBM Cognos Analytics for Data Analysis and Visualization

In this module, you'll fast-track your data analytics learning and gain hands-on data analytics experience using IBM Cognos Analytics. After registering with Cognos Analytics, you'll explore the platform's capabilities by creating visualizations, building a simple dashboard, and creating interactive and advanced dashboards using Cognos Analytics.

Module 2: Data Visualizations and Dashboards with Google Looker Studio

In this module, you'll start with navigating the Looker Studio interface. You will then create reports, connect with data sources, and add visualizations to a report. Additionally, you will explore advanced dashboard capabilities and configure Google Looker based on your requirements.

Module 3: Final Project, Final Exam, and Course Wrap-Up

In this module, you will complete the final assignment, which will be graded by your peers. For this final assignment, you will create visualizations and add them to a dashboard using Cognos Analytics or Google Looker Studio.

Objectives

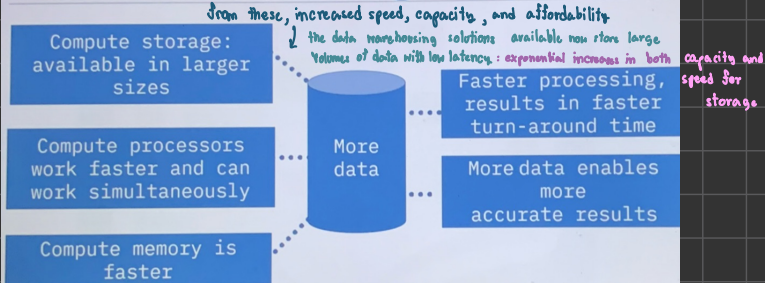After watching this video, you will be able to:
- Define analytics
- Describe how computing tools currently affect analytics
- Outline the purpose of analytics and Business Intelligence (BI) tools
- Describe what an Analytics or Business Intelligence tool is
- Identify several Analytics and Business Intelligence tools

Analytics defined

Analytics is the methodical compilation and dissection of data, statistics and operations research to build models that enable better decisions

Tools—revolutionizing analytics

From these, increased speed, capacity, and affordability

- Compute storage: available in larger sizes
  ↳ the data warehousing solutions available now store large volumes of data with low latency : exponential increases in both — *capacity and speed for storage*
- Compute processors work faster and can work simultaneously
- Compute memory is faster

More data

- Faster processing, results in faster turn-around time
- More data enables more accurate results

Analytics in action and results

↓ use BI tools

Built-in expertise provides insightful outcomes in almost real-time
↳ provide insight into past.
- Descriptive outcomes: What happened in the past
- Predictive outcomes: What *can* happen in the future
- Prescriptive outcomes: What *should* happen in the future
↓ machine learning

Business Intelligence (BI) tools

Determine what is happening and what triggered a specific outcome

- Enable data preparation, mining, management, and visualization *to gain more comprehensive organization*
- Focus on the "**what**" and the "**why**"
- Apply statistics and operations research
- Harness the power of descriptive, diagnostic, predictive and prescriptive analytics
- Dashboarding, reporting and self-serve analytics *based on historical, current, and projected data to*
- Transform data into opportunity

Tools for Business Intelligence

- IBM Cognos Analytics – integrates Watson Analytics leverages IBM AI and natural language processing
- Microsoft Power BI – known for its security and suite of applications
- Tableau – provides powerful visualizations
- Oracle Analytics Cloud – known for conversational analytics
- SAP Business Objects – recognized for smarter analytics
- Tibco Spotfire – provides AI-infused visual analytics and custom analytics app creation

IBM Cognos Analytics

Get Connected

Prepare your data

Build Visualizations

Find Patterns
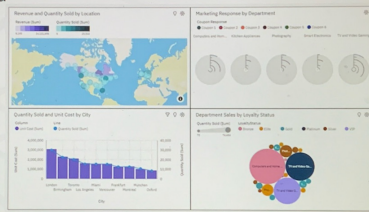
Generate Reports

Gain Insights

What you will learn

Describe what IBM Cognos Analytics is

Explain the sign-up process for a trial version of IBM Cognos Analytics

Cognos Analytics: Overview

it is a multifaceted

- Business intelligence and analytics platform **by IBM**
- Offers a range of tools and features:
  - Data modeling
  - Data exploration
  - Advanced analytics
  - Natural language generation **with AI assistance**
  - Interactive dashboards and custom reporting

learn in this course (bracket grouping the feature list)