InnoVision Executive Education

Data Analytics and Visualisation using Microsoft Power BI

Data Visualisation using Google Looker Studio

Data Analytics and Visualisation using Microsoft Power BI

I. Make a judicious selection of analytical tools appropriate to the problem at hand, informed by theory knowledge and based on experience.

II. Express vague ideas graphically in a way that should allow users from all functions to extract advantages of the dashboards.

III. Develop Analytical & Reasoning Skills in analyzing data and building effective dashboards keeping in mind the objective and user of the dashboard.

Communicate statistics in a clear, organized, and inspiring way, using a variety of graphs in ways that are appropriate for the audience

Module Description

Visual analytics is the science of combining interactive visual interfaces and information visualization techniques with automatic algorithms to support analytical reasoning through human-computer interaction. People use visual analytics tools and techniques to synthesize information and derive insight from massive, dynamic, ambiguous, and often conflicting data, and to communicate their findings effectively for decision-making. This module will serve as an introduction to the science and technology of visual analytics and will include lectures on both theoretical foundations and application methodologies.

This module is a foundation-level program catering to all employees, with no pre-requisite defined. The program will cover the conceptual understanding of Business Analytics, Business intelligence Machine Learning, and Data Science. How analytics can give the organisation a competitive edge and how should you adapt Data-driven/Informed Decision making using various tools and techniques.

The objective of this training program is to equip participants with the knowledge and skills to effectively create and utilize visualisations using Looker Studio. The program aims to enhance their understanding of data visualization principles, best practices, and hands-on experience with Looker Studio's features and functionalities.

Contents

Introduction

I. Business Analytics
II. Business intelligence
III. Machine Learning
IV. Data Science
V. Four types of Analytics with applications Theory to Practice
VI. Identify the ongoing analytics needs of organization and suggest course of action.
VII. How business analytics can give organization a competitive edge
VIII. Building Blocks of Visual Analytics

Data Visualisation using Google Looker Studio

Storytelling with data

I. Understand the context.
II. Choose effective visuals.
III. Eliminate clutter and focus your audience's attention.
IV. Tell the Story
V. Do's & Don'ts of communicating using data.
VI. Introduce the principles of effective data visualization, including clarity, simplicity, and context.
VII. Explore different types of visualizations and their appropriate use cases.
VIII. Discuss the role of color, layout, and interactivity in creating engaging visualizations.

Microsoft Power BI

Introduction

- Installation
- Interface of Power BI
- Introduction to source data

Getting started

- Types of connectors
- Loading data in power bi
- Ways to create a visual
- Understanding aggregation
- Understanding the field box

Drilling into your data

- Drilling up and down your data
- Advanced drill-down options
- Formatting your visual

Making your data analysis worthy

- White table versus tall table
- Transforming your data structure
- Filling and replacing data
- Splitting and formatting your data
- Date and time transformations

Introduction to dashboard data

- loading data and knowing about relationships
- Ways to combine your data
- Cardinality or how relationships work
- Absence of common columns

Data Visualisation using Google Looker Studio

Adding tables and matrix

- Adding bar and column charts hi d pie and donut charts
- Having tree maps
- Adding line charts
- I didn't combo charts
- Adding bubble maps
- Adding filled maps
- Adding card and multi-row cards
- Inserting elements

Filters

- Adding slicers understanding filtered Spain
- Drill through filters
- Months versus calendar months
- Making your visuals interactive
- Book using bookmarks and buttons
- Reference data and data source settings

Program Outcome

- Determining Visualisation Requirements
- Building the dashboard