

DATA ANALYTICS-UNIT 1

By
DEEPIKA KAMBOJ

- Data
- Insights
- Variables
- Data Collection
- Data Wrangling
- Data Exploration
- Data Visualisation
- Data Modeling
- Data Analysis

TERMINOLOGY



- R or Python
- SQL
- Tableau or Power BI
- Excel
- Jupyter Notebook
- Hadoop
- Machine learning libraries



POPULAR LIBRARIES

Numpy

01

Matplotlib

03

Scikit-learn

05

Pandas

02

Scipy

04

Seaborn

06



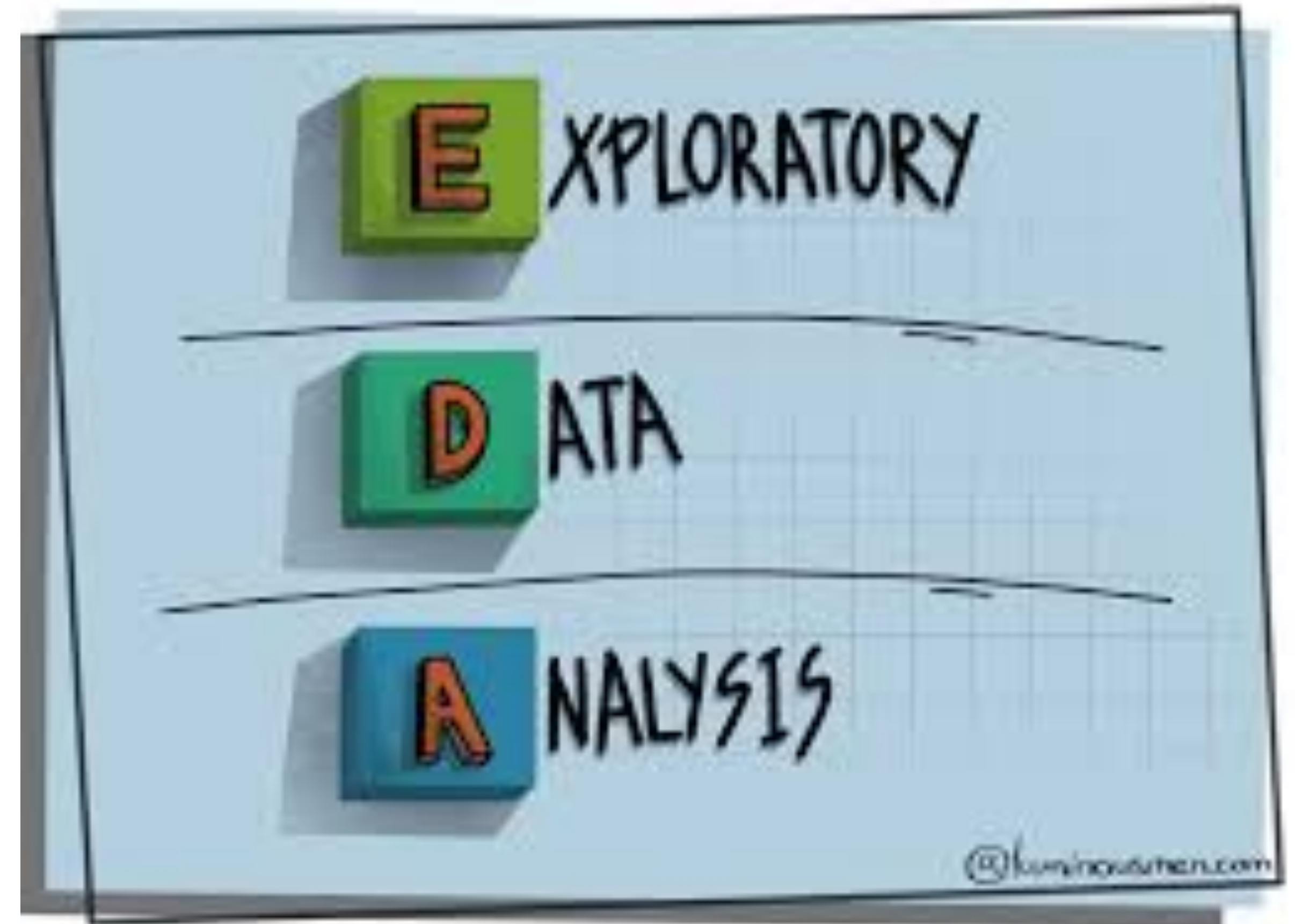
NumPy



matplotlib

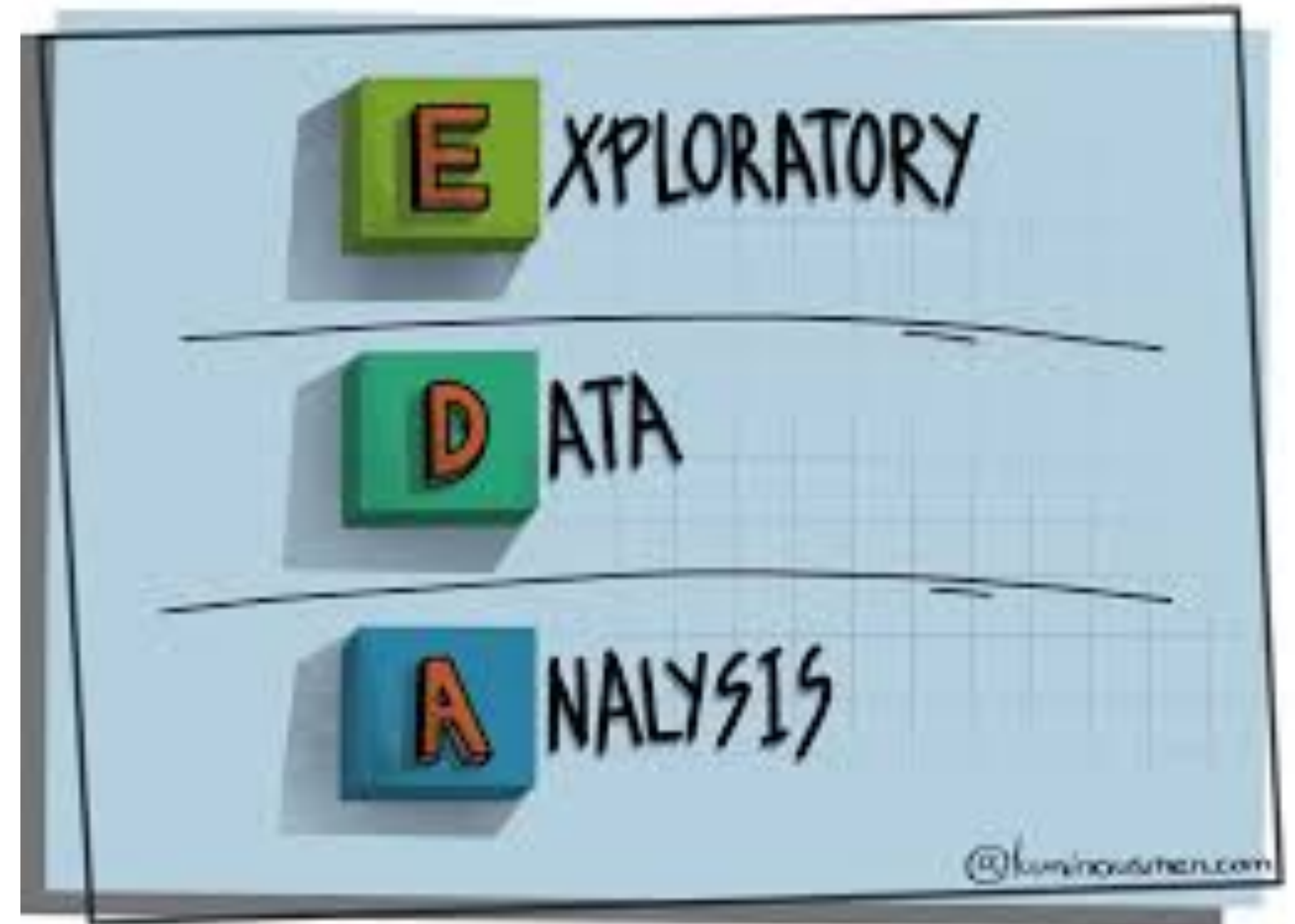
Some Recommended Books for studying Exploratory Data Analysis

- "Python for Data Analysis" by Wes McKinney
- "Data Wrangling with Pandas" by Kevin Markham
- "Data Visualisation with Matplotlib and Python" by Kelleher, McDonough, and Conti
- "Data Science from Scratch" by Joel Grus
- Syllabus References



Some Recommended Websites to explore Exploratory Data Analysis

- Kaggle
- UCI Machine Learning Repository
- DataCamp
- OpenDataSoft
- Datasets in R Packages
- Datasets in Python Packages



EDA

The goal of EDA is to gain a deeper understanding of the data, identify patterns, and uncover any potential issues that need to be addressed in later stages of the analysis.

- **Import and clean the data**
- **Univariate analysis**
- **Bivariate analysis**
- **Multivariate analysis**
- **Data visualization**
- **Identify patterns and relationships**
- **Summarize findings**

A Tour to Kaggle

Here is a brief tour of what you can find and do on Kaggle:

- Competitions
- Datasets
- Discussions
- Tutorials
- Notebooks

Kaggle Profile

Maintaining a Kaggle profile can be beneficial for several reasons:

- Improved visibility
- Improved rankings
- Networking opportunities
- Improved access to resources

Introduction to Data Analytics

Introduction to Data Analytics

Data Analytics is a field that encompasses the collection, processing, analysis, and interpretation of data to extract valuable insights and knowledge



Key Components of Data Analytics

- Data Collection
- Data Cleaning
- Data Exploration and Visualization
- Data Modelling
- Data Interpretation