Be Practical™
TECH SOLUTIONS

DATASCIENCE
CURRICULUM

ROAD MAP
DATA SCIENCE

- Data Pre-processing Techniques and Data Cleaning
- Handling Missing Data and Outliers
- Feature Engineering and Data Transformation
- Data Visualization Tools and Techniques using Python or R programming

1

Module 1

- Introduction to Data Science & its Applications
- Probability Theory & Descriptive Statistics
- Statistical Inference & Hypothesis Testing
- Linear Algebra & its Applications in Data Science

Starts

DATA SCIENCE

2

Module2

4

Ends

Module 4

- Big Data: Distributed Computing and Hadoop
- Spark and Capstone
- Capstone projects require students to identify a problem, gather data, perform exploratory data analysis, develop a data-driven model, and communicate their findings effectively.

3

Module 3

- Supervised Learning Algorithms: Linear Regression and Logistic Regression
- Supervised Learning Algorithms: Decision Trees and Random Forests
- Unsupervised Learning Algorithms: Clustering and Dimensionality Reduction

CURRICULUM
DATASCIENCE

Course Duration: 6months

Mathematics

- Basic Linear Algebra.
- Basic Calculus.
- Basic Probability.

Statistics

- Descriptive Statistics
- Inferential Statistics / Statistical Tests [Hypothesis Testing]
- Python Programming
- Python for Data Science
- Python Libraries
- Numpy
- Pandas
- matplotlib
- Seaborn
- Scipy
- StatsModels

Data Preprocessing

- Data Cleaning
- Data wrangling
- Feature Engineering
- Feature Selection
- Dimension Reduction
- Data Analytics
- Exploratory Data Analytics [EDA]

Machine Learning

- Regression
- Linear Regression [Least Square Method]
- Simple Linear Regression.
- Multiple Linear Regression
- Polynomial Linear Regression
- Lasso Regression
- Ridge Regression
- Elastic Net Regression
- Evaluation Metrics of Regression
- Classification
- Evaluation Metrics for Classification
- Clustering
- Time Series & Forecasting

Dimension Reduction - Principal Component Analysis

- Recommendation Engines
- Association Rules
- Model Selection & Evaluation
- Over Fitting & Underfitting [Bias-Variance tradeoff]
- Cross Validation
- Hyperparameter Tuning

CURRICULUM
DATASCIENCE

Course Duration: 6months

- **Artificial Intelligence**
  - Deep Learning [DL]
  - Perceptron
  - Artificial Neural Networks
  - Convolution Neural Networks
  - Recurrent Neural Networks
  - Long Short Term Memory
- **Natural Language Processing [NLP]**
  - Text Mining
  - Sentiment Analysis
- **Computer Vision [CV]**
  - Image Processing.
  - Object Detection.
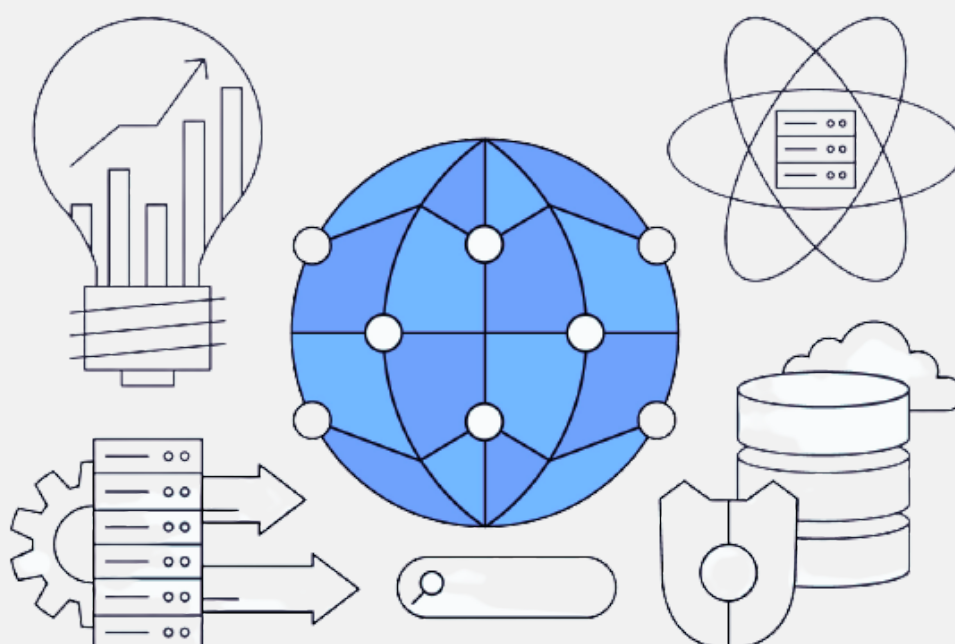
- **Database**
  - Structured Query Language [SQL]
- **Data Visualization**
  - Tableau
- **Big Data**
  - PySpark
- **Final Project**
  - Requirement Analysis
  - Designing & Modeling
  - Implementing
  - Deploying
  - Documenting

TOOLS
COVERED

Python

Python's simplicity and extensive ecosystem make it a preferred language for data scientists, enabling you to unleash the full potential of data science using Python.

Tabluea

Tableau is a powerful data visualization and business intelligence tool used in data science. It allows users to create interactive and visually appealing dashboards, reports, and charts from various data sources.

SQL & Sql Applications

SQL is a programming language used for managing and manipulating relational databases. In the context of data science, SQL plays a crucial role in data exploration, data cleaning, data manipulation, and data analysis.

Advanced Excel

Advanced Excel skills can be incredibly useful for data scientists. Excel provides various features and functionalities that enable data cleaning, exploration, visualization, integration, and basic statistical analysis.
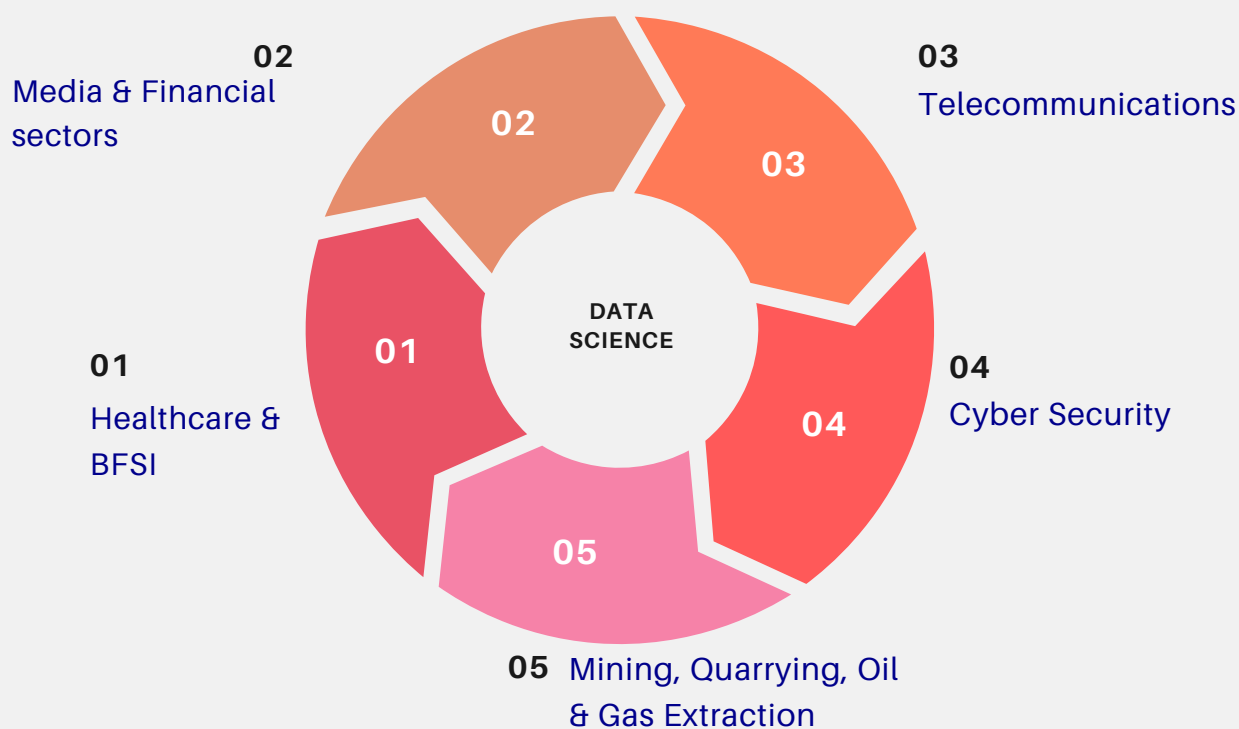
Capstone Project

A capstone project is a final, comprehensive undertaking that showcases a student's mastery of a subject or field through the completion of a practical, research-based project.
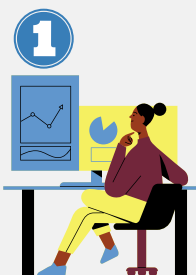
INDUSTRIES
WHO NEEDS YOU

Our Data science course is designed to provide you with a comprehensive understanding of the core concepts and practical applications of data science. From data preprocessing & exploratory data analysis to advanced machine learning algorithms and model evaluation, you'll learn the entire data science pipeline.
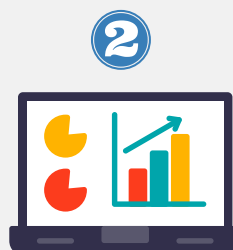
02
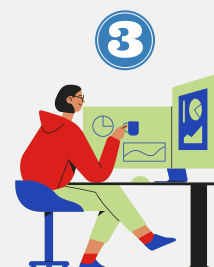Media & Financial sectors

03
Telecommunications

DATA SCIENCE

02

03

01

04

05

01
Healthcare & BFSI

04
Cyber Security

05 Mining, Quarrying, Oil & Gas Extraction

ROLES

Data and Analytics Manager

1

Data Architect

2

Statistician

3

FUTURE OF
DATASCEINTIST

Data Scientist Salaries by Industry

Industry	Salary		Sector	Salary
Mining industry	$125,30		Management sector	$100,690
Information industry	$102,960		Finance and insurance	$100,320
Utility industry	$102,600		Wholesale trade sector	$99,590
Manufacturing industry	$102,410		Administrative support sector	$98,320
Agriculture, forestry, fishing and hunting sector	$101,000		Real estate industry	$97,720

Data Scientist Salaries by Company

TCS 8.1 LPA

ACCENTURE 13.8 LPA

DELOITTE 13.3 LPA

Data Scientist's Salaries with idustry pay

DXC TECHNOLOGY 9.5 LPA

HCL 8.7 LPA

IBM 16.2 LPA
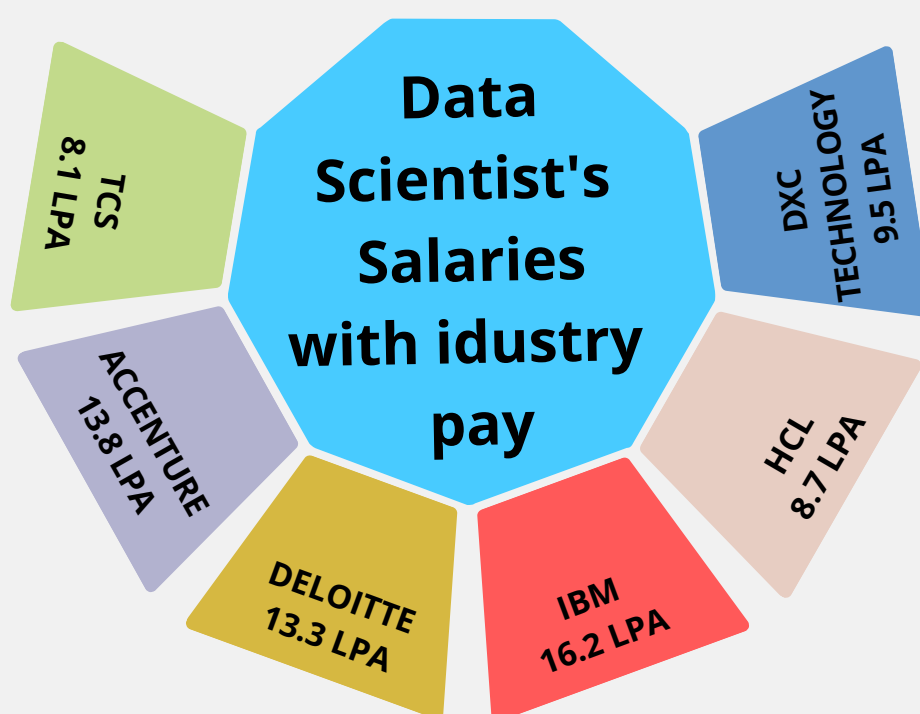
Source: Ambition box

PLACEMENT
ACTIVITIES

1

Assesment Test

Be Practical evaluates a person's knowledge, abilities, and personal attributes and rates them on a scale of 1 to 10. To strengthen any weak areas, an individual improvement plan will be discussed & put into action.

2

Resume Building

We go through great lengths to create a trainee's profile with the appropriate key words and ensure that profiles have been uploaded in all employment portals. This aids them in obtaining phone calls directly from recruiters.

3

Group Discussion / Communication Classes

We evaluate students using assessment tests to gauge their knowledge, skills, abilities, and personality traits. Employers frequently utilize these examinations to assess the academic skills of applicants.

4

Mock Inteview

Industry experts from our partnered companies conduct technical interviews and share the findings with HR. This directly helps trainee's in preparing for actual interviews and also to understand individual strengths and weaknesses.

5

Industry Related Project

Experiential learning that integrates knowledge and theory learned in the classroom with practical application and skills development in a professional setting.

WHY TO
CHOOSE BE PRACTICAL

☑ Internship Opportunities

Internship opportunities open doors for aspiring individuals to gain practical experience, develop valuable skills, and pave the way for a successful career journey.

☑ 360 degree Growth

This concept refers to overall development & progress in all aspects it emphasizes a well-rounded approach to personal & professional growth.

☑ Personalitiy Development

Personality development towards an organization involves the cultivation of professional traits & behaviors that align with the values, goals & culture of the organization.

☑ Industrial Exposure

Industrial exposure refers to the practical experience and knowledge gained by individuals through direct involvement & interaction with real-world industrial environments.

☑ Interaction with Domain Experts

Interaction with domain experts involves engaging with individuals who possess extensive knowledge, expertise, & experience in a specific field or industry.

☑ Hands on Coding

Hands-on coding refers to actively practicing and implementing programming skills by writing, testing, and debugging code.

☑ Instructor-led Training (ILT)

Instructor-led training (ILT) refers to a traditional form of training where an instructor facilitates learning in a classroom or virtual setting.

Thank You

Be Practical™
TECH SOLUTIONS

Phone call
+91 92420 79119

Email Address
info@be-practical.com

Website
www.be-practical.com

Office Address
737C, 1st Floor, 1st Cross Rd
3rd Stage, 4th Block
Basaveshwaranagar
Bengaluru, Karnataka 560079