



“Nurturing Minds and Touching Lives”

Cliniminds, Think-I & Team of Business Analytics and Consulting Experts Offers India's First Industry Academia Collaborative Program in Pharmaceutical Business Analytics



Presentation Objectives

“Cliniminds is committed to provide highest quality of skills, education, training & business solutions and provide highly skilled & job ready talent pool for the global health sciences industry.”

Presentation Objectives

- To provide information related to career opportunities in analytics and consulting within Pharmaceutical industry

What is Analytics?

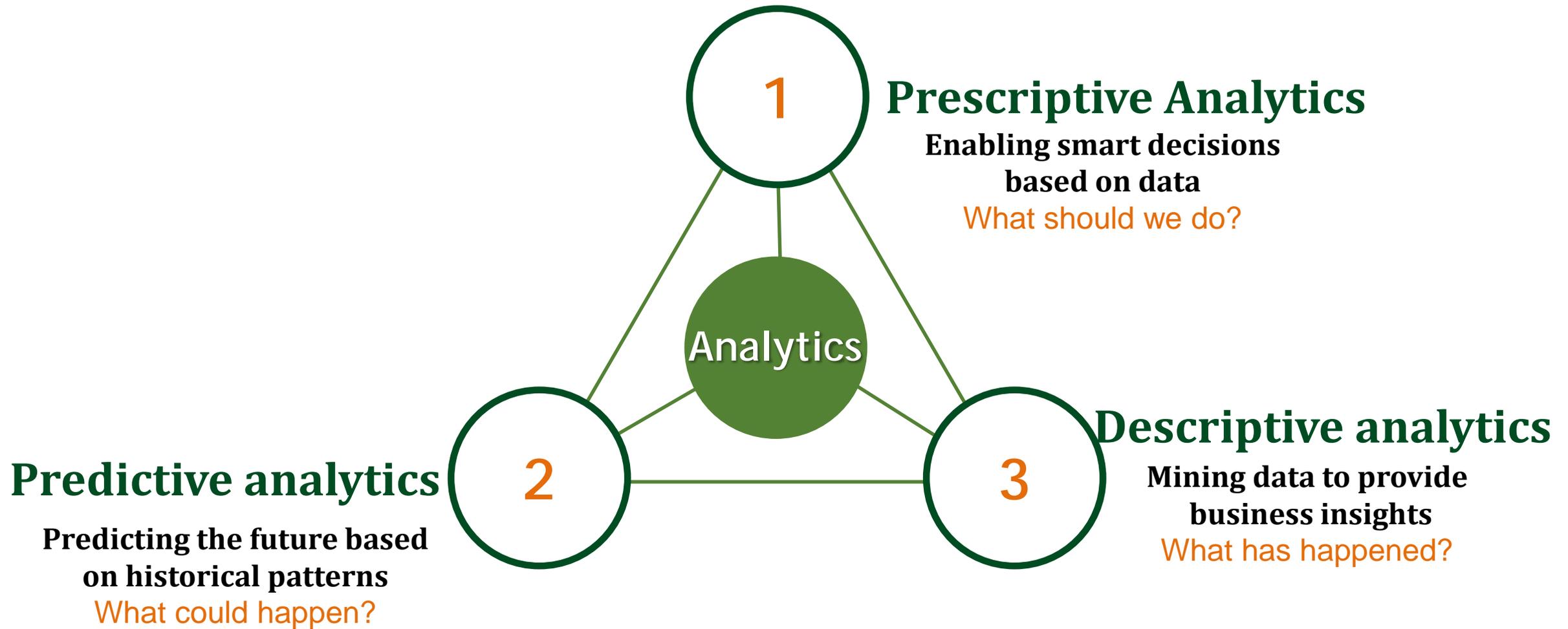


Data on its own is useless unless you can make sense of it!

WHAT IS ANALYTICS?

The scientific process of transforming data into insight for making better decisions, offering new opportunities for a competitive advantage

Types of Analytics



Big Data Analytics?



Why is Big Data Analytics important?

Big data analytics helps organizations harness their data and use it to identify new opportunities. That, in turn, leads to smarter business moves, more efficient operations, higher profits and happier customers.



Demand for Analytics Professionals in India

Domestic Market

\$ 163 Million
Jan, 2014

\$ 500 Million
Projected for
2019-20

Analytics Market

\$ 1 Billion
Jan, 2014

\$5 Billion
Projected for
2019-20

Job Openings

31,500
Jan, 2014

2,50,000
Projected for
2019-20

Salary Report

Experience

Salary in INR

0-2 Years

3-4 Lakhs

2-5 Years

4-5.8 Lakhs

5-10 Years

8.8+ Lakhs

10+ Years

15++ Lakhs

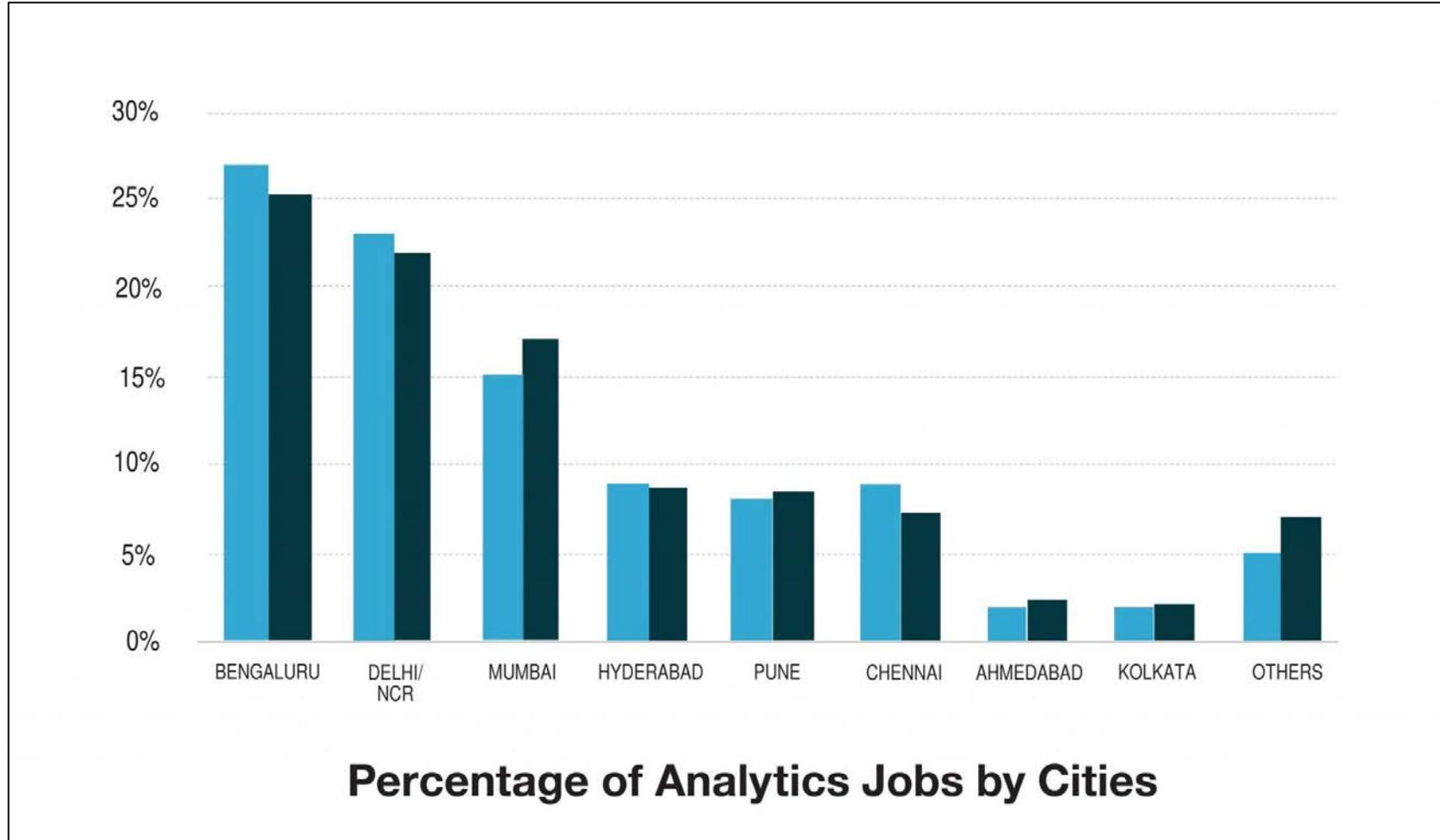
New Analytics Jobs By Industry



Analytics Services and Pharma lead the pack in the highest percentage of Analytics jobs being created in developing nations.

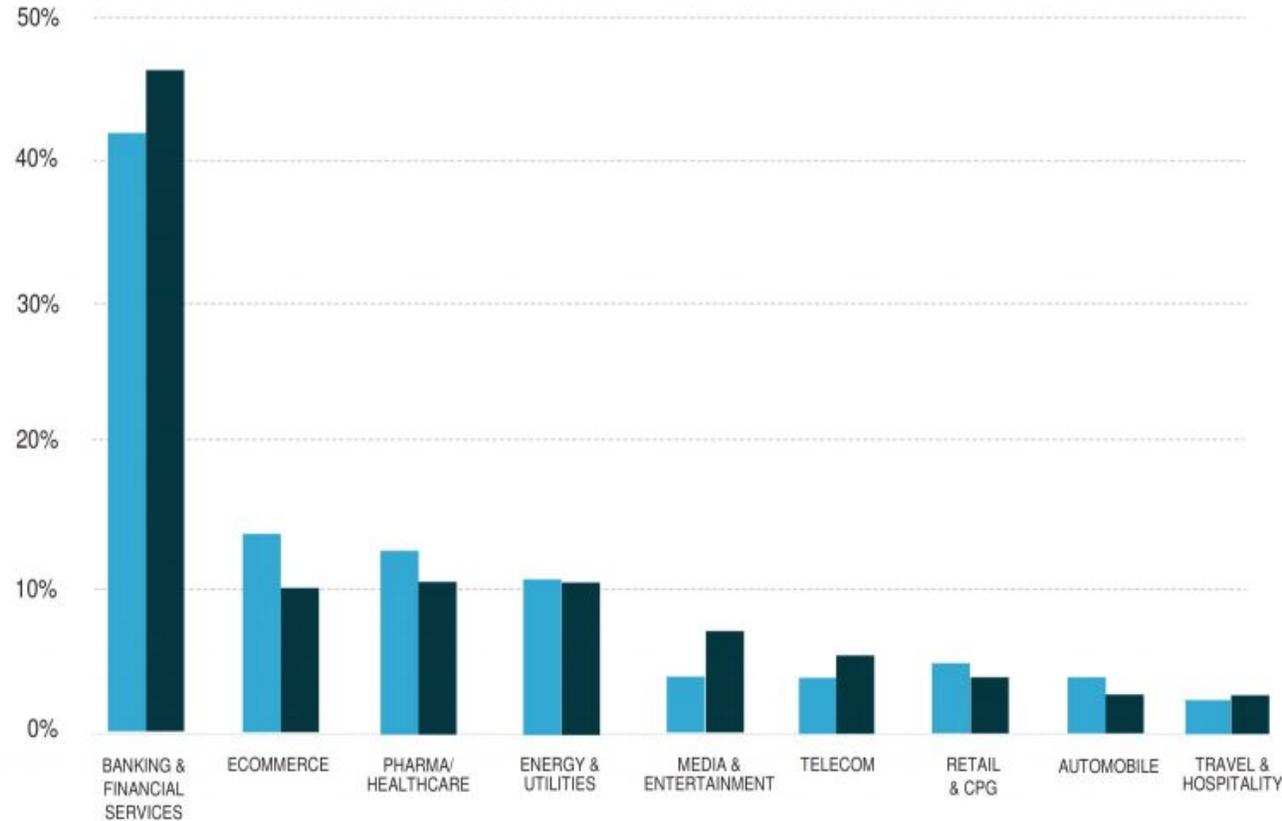
	US	INDIA	CHINA	UK	BRAZIL	JAPAN	SINGAPORE
PHARMA ANALYTICS SERVICES	11%	54%	25%	9%	14%	6%	9%
PHARMA	14%	24%	32%	19%	30%	44%	26%
INSURANCE	39%	7%	8%	32%	11%	27%	24%
BANKING	20%	11%	22%	25%	19%	14%	25%
OIL & GAS	14%	3%	10%	13%	23%	8%	9%
COMMUNICATIONS TECHNOLOGIES	2%	1%	3%	2%	3%	1%	7%

Analytics jobs by cities



Source Type: <https://analyticsindiamag.com/analytics-and-data-science-india-jobs-study-2017-by-edvancer-aim/>

Analytics jobs by industry



Percentage of Analytics Jobs by Industry

Source Type: <https://analyticsindiamag.com/analytics-and-data-science-india-jobs-study-2017-by-edvancer-aim/>

KEY RECRUITERS IN INDIA

Genpact	Novartis	Covance	Data Analyst
BCG	Novartis	Eli-Lilly	Indegene
Accenture	SG Analytics	Maven Workforce	Axtria
IQVIA	Gi Group	Saama Technologies, Inc.	MEDEVA
Pfizer	Criteo	Smart Analyst	Machintel Systems Pvt Ltd
AstraZeneca	Baxter	Bayer Healthcare Pharmaceuticals	Boehringer Ingelheim
Merck	Sanofi	Esteve	GSK
Janssen Pharmaceuticals	Gilead Sciences, INC	Biogen	EXL Services
Cognizant	Impetus Analytic E Solutions Private Limited	Dow Chemical International Private Limited	Tech Mahindra
Hexaware Technologies Limited	Clarivate Analytics	Verisk Analytics	WNS
Infosys BPM Limited	KPMG	Logix Health Solutions Private Limited	Evolent Health
TransOrg Data Analyst	SEAGATE	UHG Group	IBM

Why Training in Analytics Critical

Skills required for analytics jobs in these industries differ drastically from what is included in life sciences graduate/post-graduate curriculum.

Key skills required for analytics role

Scientific

- Deep domain knowledge
- Healthcare structure by geography (US, EU, and others)
- Clinical trial and pipeline analysis

Commercial

- Qualitative/Quantitative market research
 - Secondary
 - Primary
- Forecasting skills
- Market assessment
- Segmentation and targeting

Analytics

- Consulting skills

Data analytics

- Excel based analysis
- Advanced analytics (SAS, SQL etc)
- Big data analytics

Real World Evidence analytics

- Systemic literature review
- Medical writing
- Pharmaco-economics

Project management skills

Lack of these skills lead to employee and organization frustration



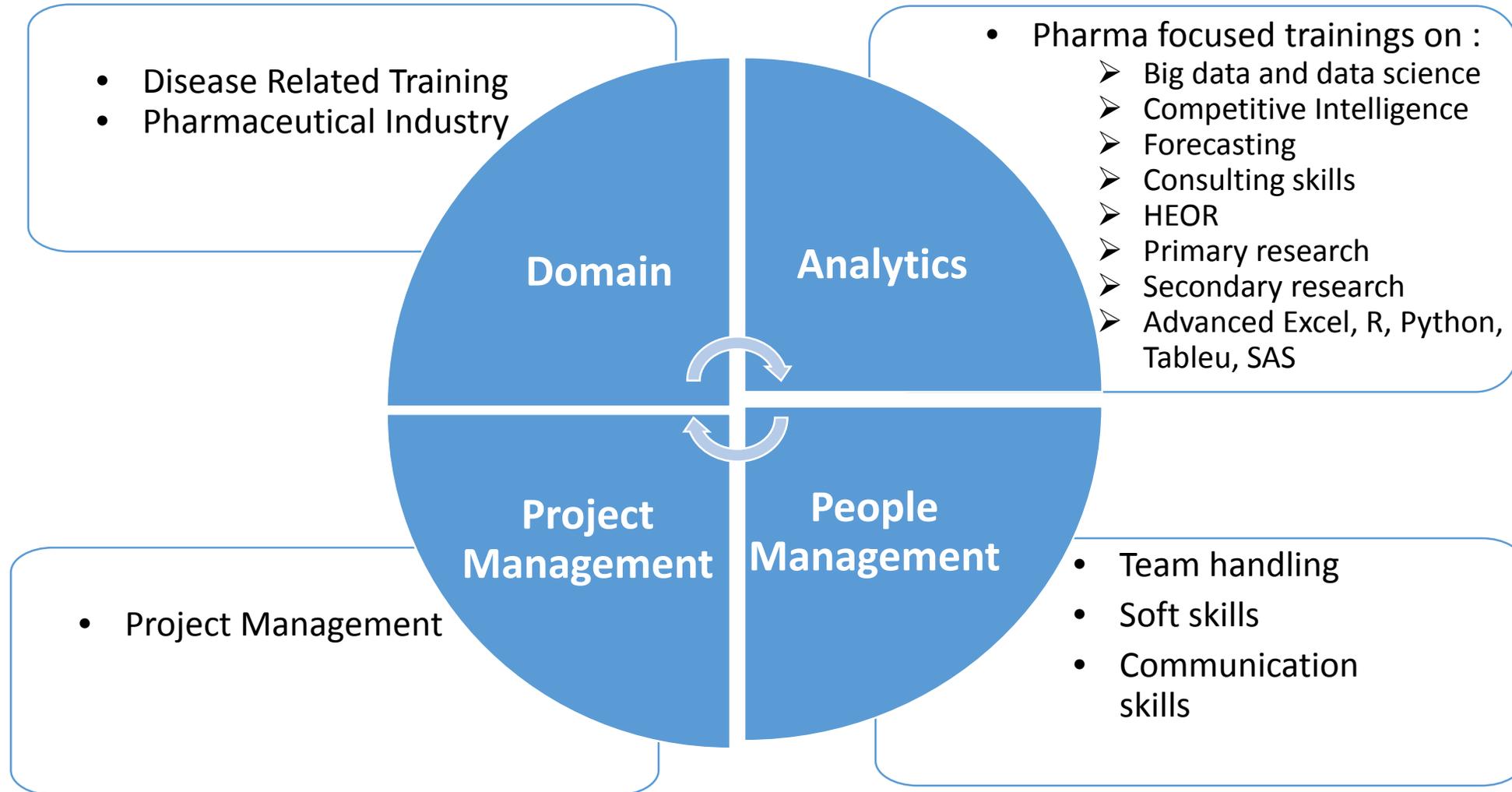
Cliniminds Pharmaceutical Data Analytics Course Focus and Goal

Pharma business analytics course is designed to cater skill gaps through

- Intense focus on domain and analytics
- Case based curriculum, with real life examples from healthcare industries
- Overview of big data in the context of health care industry

GOAL of this course is to empower student to take up analytics role in pharmaceutical and healthcare industry and have a successful career in this exciting field

Cliniminds Pharmaceutical Data Analytics Course will build required skills through 4 Modules



Course Module 1-Domain

Domain Expertise

This would include industry relevant training on

Oncology

Diabetes

Cardiovascular

Rare diseases and metabolic diseases.

and focus on

Pathophysiology

Patient segments

Treatment guidelines

Trial analytics and pipeline assessment

Unmet need assessment for diseases and pharmaceutical science.

This module will also include training on healthcare structure of key global healthcare markets like US & EU

Course Module 2-Analytics

Analytics

Trainings would be pharma and industry relevant and would include

- Understanding US and Europe Healthcare Ecosystem
- RWE - Real World Evidence
(Clinical Trial Optimization; Commercial Analytics, Comparative Effectiveness Research, Value Based Pricing, Evidence Based Medicine, Medical Writing & Systematic Literature Search)
- Excel Analytics:
(Using excel for analytics in pharma industry, applying basic analytical and advanced analytical formulae and skills to derive insights related to data)
- Forecasting (Patient / Sales/ Non Patient/ Epi based):
(This would provide training on relevant forecasting techniques such as patient based forecast, sales based forecast, using simulations (monte carlo, AT risk), and portfolio valuations.)
- Strategy, Market Estimation & Competitive Intelligence
- Commercial Analytics: Patient level data analytics
- Sales Analytics: Sales force effectiveness/Incentive Compensation/ Promotional Mix analytics

Course Module 2-Analytics

- Big Data and Data Science: This would provide knowledge regarding role of big data analytics in pharmaceutical industry. Focus of this course would be to make graduates aware of technologies and platforms and how use them for analytics in the industry. Key topics that would be covered:
 - Hypothesis generation
 - Introduction to database systems,
 - Data analytics languages (R, Python)
 - Introduction to Data visualization tools (micro-strategy, Tableau, etc.)
 - NLP and machine learning techniques

Course Module 2-Analytics

- IP Research: This would provide training on IP Research techniques.
- Consulting Skills: This would provide training on hypothesis generation, consulting frameworks, and would involve case studies from pharmaceutical industry, with a focus to develop critical thinking and business decision making skills
- Primary Research: This would provide training on various primary research analytical techniques used in pharmaceutical industry. Training will include qualitative and quantitative research, and would make students well versed with questionnaire design, data collection, analytics and insight generation

Course Module 2-Analytics (Datasets Understanding)

- Sales Data: IQVIA/ AVACS
- Presecptions Data: Prescription data by products/ company/ Indications
- Promotional Data: Pharma companies investment data by channels, which helps in calculating Share of Details and Share of Voice
- Patient Level Data: Patient Level Longitudinal data
- Pipeline Databases: Clinical Trial.gov, Private databases
- Epidemiology Databases: Pubmed and Private databases
- Other Datasets: CDC, SEER, FDA and private database

Course Module 3-Project Management/ Business Excellence

Project Management : This module will focus on making students well versed with concepts of project types, stakeholder management, time management, risk management, quality management and communication management.

The aim of this core will be to make student efficiently handle projects within the industry. This would also cover operational excellence (Lean & six sigma concepts).

Fundamentals of Financial Analysis:

- Resource utilization
- Business Excellence
- Billable/ Vs Non billable
- Billing Rates

Course Module 4-People Management

Professional Development & People Management

This module will arm student with skills critical for

Working in teams and soft skills,

Interview skills,

Networking,

Presentation and communication skills

which play important role in corporate organization.

A hand is shown on the left side of the image, holding a large white rectangular sign. The sign is centered with the text "Know Your Tools & Why Learn About Them?".

Know Your Tools & Why Learn About Them?

Tools Covered in Program



The program is developed keeping in mind the needs of an evolving Analytics industry that requires individuals to be “job-ready” from Day 1.

Why R?

Highest Paid IT Skill

Linkedin Skills and
O'Reilly Survey,
2016

Most-used data science language after SQL

O'Reilly Survey,
Jan 2014

75% of data professionals use R

Rexer Survey,
Oct 2015

Second best programming languages for data science

O'Reilly Survey,
2016

R is the #1 Google Search for Advanced Analytics software

Google Trends, April 2016

R is #13 of all Programming Languages

Redmonk Language Ratings, June 2015

Demand for R language skills is on the rise.

Companies Already Onboard R

Quintiles IQVIA	Genpect
J&J	KPMG
Sanofi	Evolut Health
NOUS	& Many More...
Infosystems	

Why Python?

Official
language
of Google

2nd most
popular
data science
language

Python is a powerful, flexible, open-source language that is easy to learn, easy to use, and has powerful libraries for data manipulation and analysis

What are the reasons for its sudden popularity?

Cost of
Ownership

Python is an open source software that is free to download.

Versatility

Multi-purpose language that can be used to build an entire application

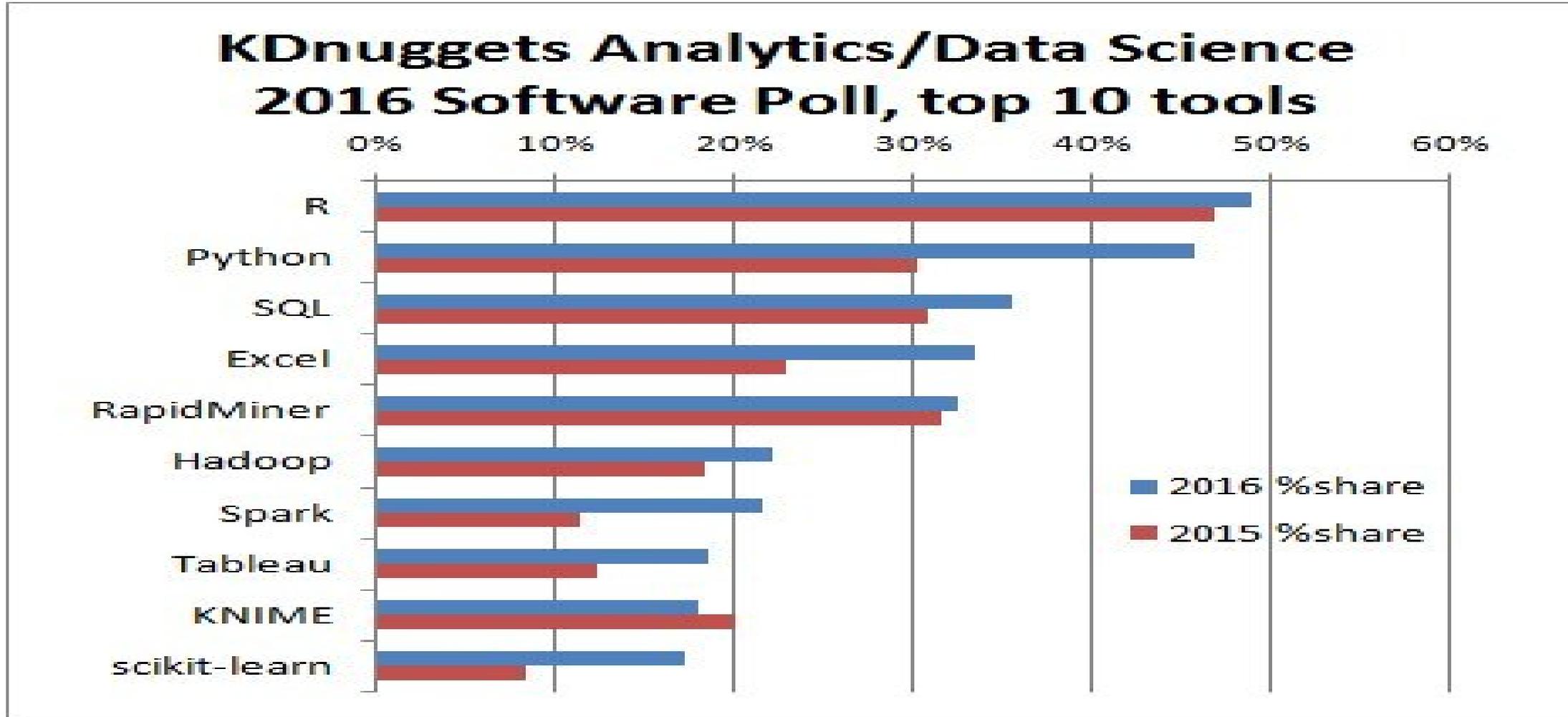
Big data
compatibility

Python has become one of the big go-to languages for big data processing due to its wide selection of libraries

Python is particularly useful in data analytics because it has a rich library for reading and writing data, running calculations on the information and creating graphical representations of data sets.

We can write map reduce programs in python using PyDoop. Here is where Python scores over R. While R uses in-memory processing, Python using PyDoop can process PetaBytes of data

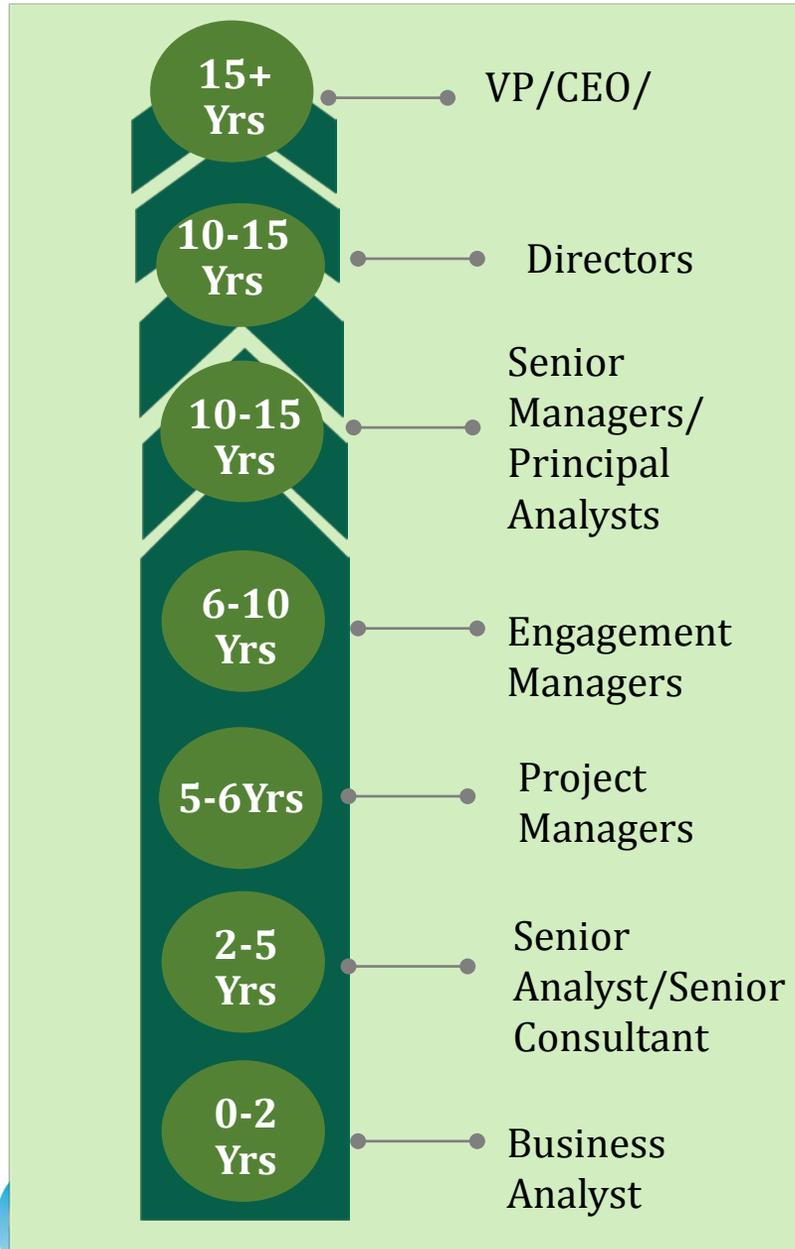
survey KDnuggets Analytics/Data Science 2016 Software Poll: top 10 most popular tools in 2016, R got top rank with 49% vote.



Career in Pharma Analytics



Career Path and Indicative Salaries



Skills require to succeed in the Industry

- Strong analytical and critical thinking skills
- Understanding complex data & tools for Analytics
- Pharmacology
- Soft Skills & Communication
- Predictive Analytics
- Business Understanding
- Clinical Research

Average Salaries

Director	Rs. 40 Lakhs & Above
AVP	Rs. 18-24 Lakhs
Manager	Rs. 9-15 Lakhs
Senior Analyst	Rs. 6-8 Lakhs
Analyst	Rs 4-6 Lakhs

Job Description



Business Analyst

- Build models and tools for enhancing marketing effectiveness
- Sales/Revenue forecast tools
- Advanced analytics for targeting and segmentation
- Build strategic and operational forecast models and tools
- Design and implement reports
- Implement and process verification procedures
- Fulfill customer requests for information and ad-hoc analysis
- Add value by implementing innovative solutions

Senior Business Analyst/Senior Consultants

- Running strategic workshops with internal and external client stakeholders for consulting / **business** planning engagements
- Clients training on data extraction, data analytics
- Making detailed presentation for clients with insights & analytics of sales, RX, promo monitor
- Co-ordination with QMS & backend team to meet clients needs
- Coordinate with senior management to communicate and implement the vision, strategy and objectives for driving the healthcare business practice & Identify new areas with business potential
- Liaison with Internal Team and Clients for Resolving all the data related issues

Project Manager

- Planning, organizing and managing resources to bring about the successful completion of specific project goals and objectives.
- Performing quantitative and qualitative analysis to assist in the identification of client issues and development of client deliverables.
- Planning and facilitating client workshops
- Actively participating in recruitment, and learning & development initiatives
- Designing, structuring and delivering client reports and presentations
- Coaching project team members and supporting them to fulfil their personal objectives

Engagement Manager/Senior BD Manager

- **Client Management**
 - Work at all levels and across all client functions
 - Contribute to new business development and strengthening of client base
 - Manage presentations and proposal preparation process
 - Relationship management with clients purchasing large and recurring services
- **Consulting and Innovation**
 - Demonstrate a high level of ability to think strategically and lead initiatives to increase awareness and build credibility
 - Strong analytical skills to strategically address the full range of client issues towards commercial and marketing effectiveness
- **Project Management**
 - Manage multiple consulting projects of varying complexity
 - Ensure on-time and on-budget delivery for clients
 - Effective leadership skills to select, manage and motivate teams in a matrix organization
- **Organization**
 - Lead, mentor and “grow” the individuals within the Consulting Analytics team
 - Develop strong, positive cross organization relationships with internal groups and ensure collaboration with all functions in the organization
- **Operational**
 - Establish processes to support timely and delivery operational excellence
 - Validating scope, conduct project kickoff and satisfaction discussions with stakeholders
 - Review client deliverables to ensure they meet all client acceptance criteria,
 - Support the development of client proposals

Senior Manager/Principal Analyst

- Work closely with scientists to understand and document their processes, scientific and business needs and system requirements
- Assess the internal and external data ecosystems to define proper and flexible data management solution(s)
- Work with and/or lead internal and external software teams to design and implement solutions that meet the scientists' needs
- Experience in supporting systems and data in both Discovery, Preclinical and Phase I Clinical Trials
- Execute tasks and deliverables associated with the software development lifecycle and prototyping methodologies

Cliniminds Course Structure

Program Name: Advanced Post Graduate Program in Pharmaceutical Business Analytics

Mode of Program: Online E learning (Live Audio/Video Classes)

Duration: 06 Months Weekend & 03 Months Full time

Cliniminds Placement Process

