Intermediate Course
in Data Science

Content

7 Staffing & Placement

6 Resume Interview Prep

3 Lab Work & Real Time Project

5 Soft Skill Development

4 Internship

2 Training

1 Aspirational Test Aptitude Test Career Guidance

ROUTE TO A BETTER FUTURE

3

Program Overview

Our Intermediate Program in Data Science accelerates

your career in Data Science. You will be

offered with the best-in-class training and skills to be

successful in this domain. Through this

course, you will learn how to visualize and respond to

new data, as well as develop innovative

new technologies. The course equips you with Python,

Tableau, MongoDB etc. You'll also deep

dive into data interpretation and ML and AI

Program Features

Comprehensive learning experience

Private, group and corporate learning solutions

Career focused

Customized learning oferings for busy exeutives and corporate groups

Experienced instructors with several years of hands-on work and training experience

Live project work

Downloadable e-Book

Resume preparation & mock interviews

Job assistance

Immigration assistance including application processing to make your
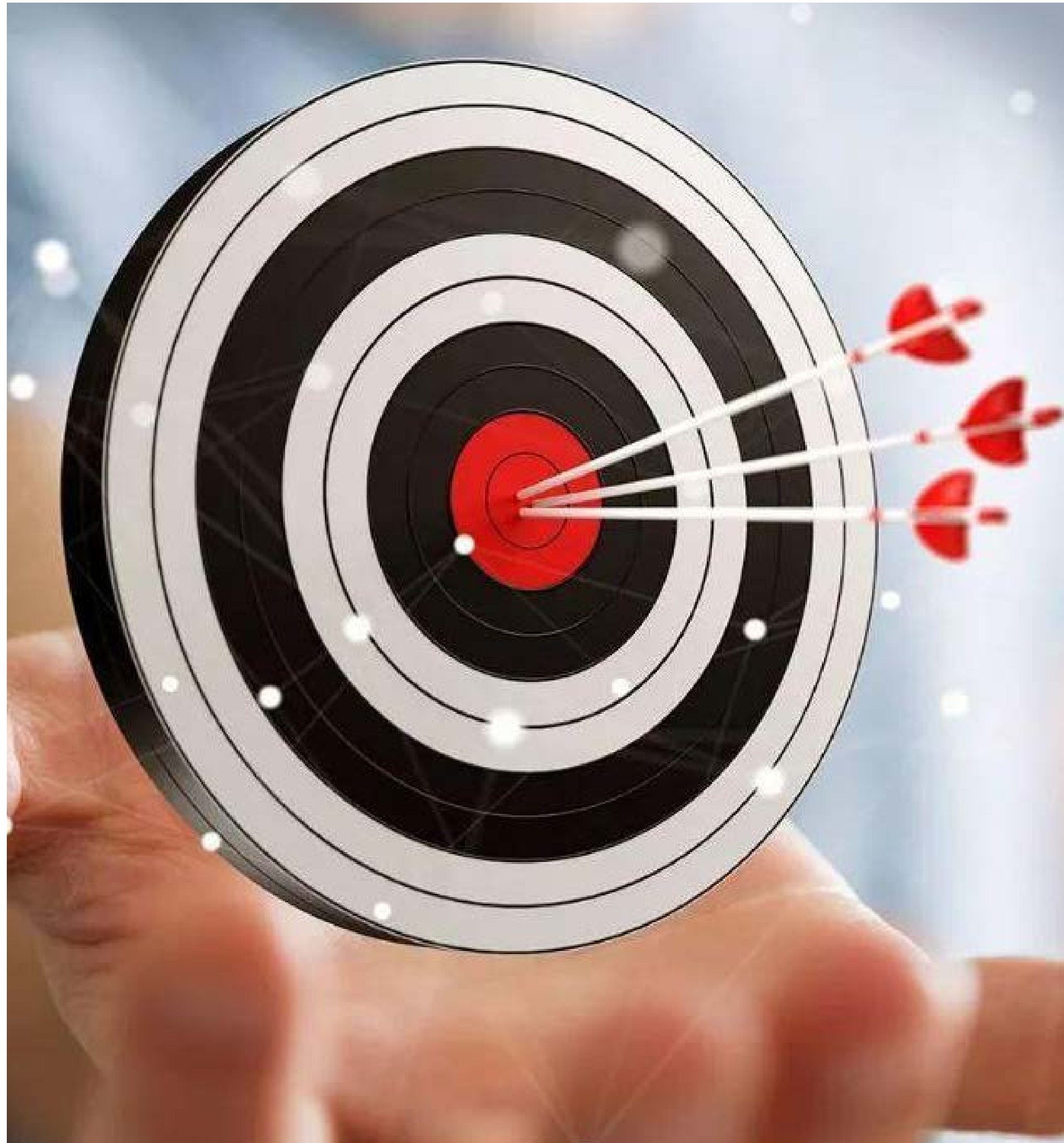
Delivery Mode

Online training

Prerequisites

- ✓ Candidates with prior IT knowledge/ IT work experience

- ✓ Candidates with a relevant bachelor's degree with core subjects including computer programming, language proficiency

- ✓ Knowledge of operation and management of server OS like Linux and Windows server (Certified Linux Administrator, MCSA are preferred)

- ✓ Basic Networking Certificate (Network A+ Certification)

- ✓ Candidates with knowledge of Database management or ETL

- ✓ Web based pre - admission test which consists of course-based and competitive assessments. Candidate has to score at least 60% in the test to be eligible to pursue the course

Target Audience

Freshers with Computer Science background interested in Data Science

Professionals looking for a career transition

Supply chain and marketing managers

Business analysts and banking professionals

Candidates having good command in any programming language take up this course, as this cloud architect course will help you run the projects and make

Key Learning Outcomes

Python Programming Language

Statistics for Data Science
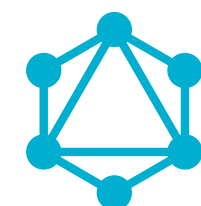
SQL for Data Science

Machine Learning and Deep Learning Algorithms

Tableau

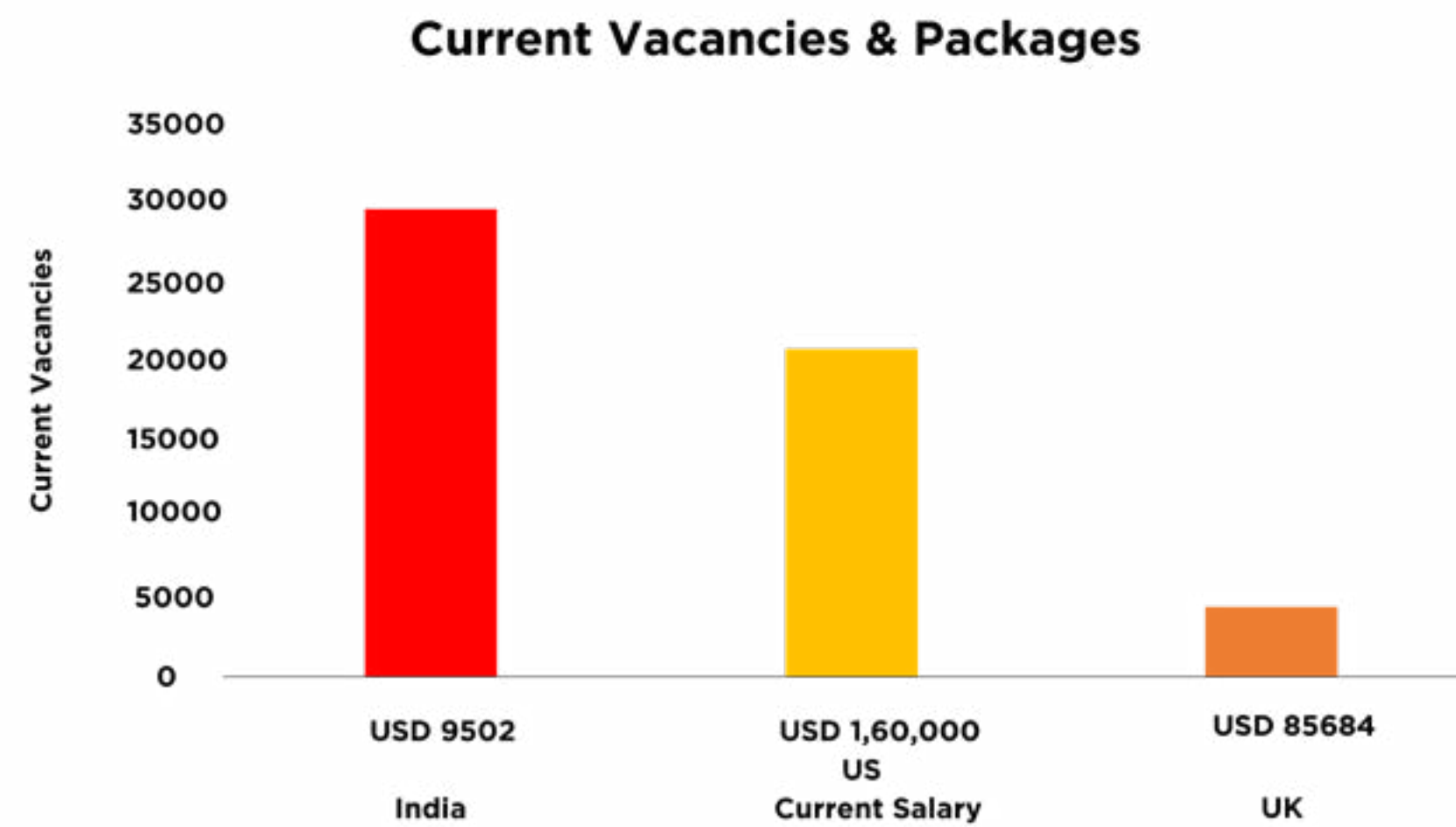MongoDB

Graph QL

Certification Details

On completion of the course, you would be awarded with a certificate of completion from us. This certificate would make you eligible to pursue industrial certification. You'll get the necessary guidance and support from our subject matter expertsto obtain Industrial Certification. We guide our candidates for pursuing the mentioned Industry Standard Certifications.

IBM Data Science Professional | **Tensor flow Developer** | **Google Professional Data Engineer**

Benefits

Data Science is a buzzword in the technology world right now and for good reason, it represents a major step forward in how computers can learn. The need for Data Scientists is high in demand and this surge is due to evolving technology and generation of huge amounts of Big Data.

Data Scientists make an average of $116,100 per year. In a recent survey conducted by Analytics Insight, by 2021, there will be 3,037,809 new job openings in data science, worldwide.

Steps Involved in The Certification

1. Attend all the classes to understand the basics clearly

2. Complete the assignments given by your trainer regularly

3. Pass the online test conducted by us within the set timeframe

4. Earn the certification once you pass the exam

Course duration

6 months training program with 3 months of theoretical & practical training and 3 months of internship.
At the end of this training program, you'd get hands-on experience on various tools. All students are eligible to pursue the internship program.

Course Completion Criteria

Minimum 85% percent attendance in the course
and
Minimum 65% score in the final course-end assessment
(To be eligible for the final course-end assessment, the candidate should clear all the module-wise assessments with 65%)

All students must adhere to the following criteria for successful completion of the Academy's courses

Quizzes

- Quizzes will test the student's attentiveness and understanding of the course's

- Each student will complete all the assigned quizzes for the course

- The quizzes will be based on the material presented in the lectures and the online modules.

- Students must earn a minimum of 65% to pass the quizzes

- If the minimum score of 65% is not achieved, the student must retake the quiz until that score is reached

Assignments

- The assignments will help students review and better understand the course material introduced in the lectures and modules.

- Students must complete all assignments assigned for the course

- Assignments will be graded at the discretion of the instructor

- Students must earn a minimum of 65% to pass the assignment

- If the minimum score of 65% is not achieved, the student must resubmit

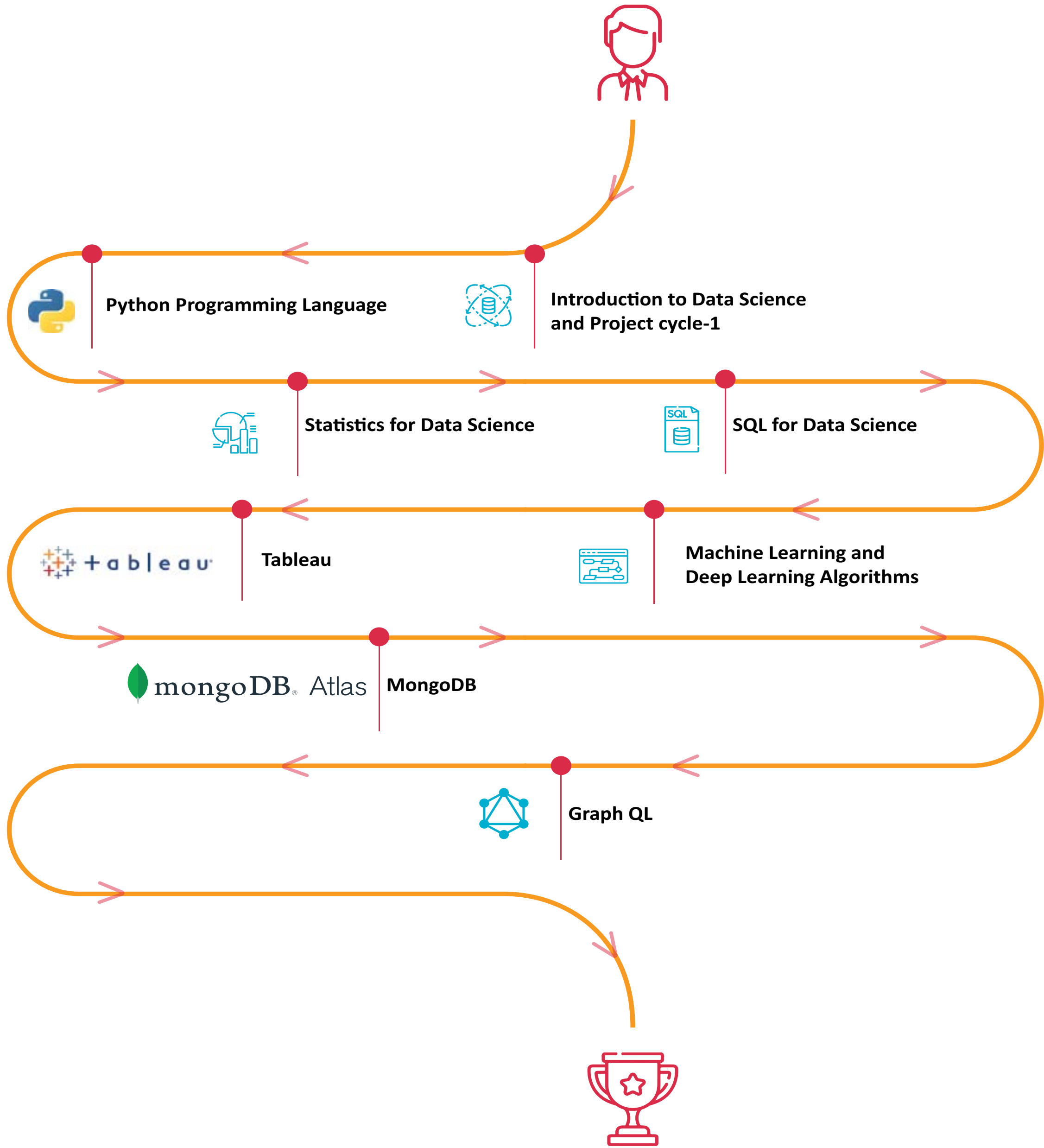- After completion of each module, there will be a Theoretical Quiz and Practical Assignment.

Attendance

✓ Students should earn minimum 85% percent attendance in the course

Final course-end assessment

✓ Students should earn minimum 65% score in the final course-end Assessment

(To be eligible for the final course-end assessment, the candidate should clear all the module-wise assessments with 65%)

Python Programming Language

Introduction to Data Science and Project cycle-1

Statistics for Data Science

SQL for Data Science

Tableau

Machine Learning and Deep Learning Algorithms

mongoDB. Atlas   MongoDB

Graph QL

Course Curriculum

Module 1

Introduction to Data Science and Project cycle-1 (Duration: 3 hours)

Hands On

- How to Obtain data

- How to Scrub Data

- How to Explore Data

Total Duration for Introduction – 3 hours (2 days approximately)

Module 2

Python Programming Language (Duration: 15 hours)

Numbers, Strings, List, Tuple, Dictionary, Set, File operation

Conditional Statement

Loop, range, List comprehension

def function, Lambda

Python In Build Functions- Map, Reduce, Enumerate, reduce, filter, zip, complex, any,

args and kwargs

Try-Except-Finally

DATETIME, Regular Expression

✓ numpy

✓ Object Oriented Programming

Hands on

✓ Python Development Environ-
ment Setup

✓ Conditional Statement & Loops

✓ Variables, Datatypes & Built-in
functions

Total Duration for Python – 15 hours (10 days approximately)

Module 3

Statistics for Data Science (Duration: 15 hours)

Data types and its measures

Building Normal Q-Q Plot and its Interpretation

Random Variables and its applications

Central Limit Theorem for sampling variations

Introduction to Probability with examples

Confidence Interval — Computation and analysis

Normality tests for dataset

Formulating a hypothesis statement (NULL and ALTERNATE)

Basic Graph Representations-Bar Chart, Histogram, Box Plot, Scatterplot

Type-I and Type-II Errors, P -Value, Significance

Hands On:

https://k21academy.com/data-science/hands-on-data-science-and-machine-learning-labs-with-python/#Lab_1_Data_Pre_Processing

https://k21academy.com/datascience/hands-on-data-science-and-machine-learning-labs-with-python/#Lab_3_Feature_Engineering_Encoding_And_Scaling_Of_Data

https://k21academy.com/data-science/hands-on-data-science-and-machine-learning-labs-with-python/#Lab_2_Missing_value

https://k21academy.com/datascience/hands-on-data-science-and-machine-learning-labs-with-python/#Lab_4_Outlier_Detection_And_Analysis

Total Duration for Statistics – 15 hours (10 days approximately)

INTERMEDIATE

SQL for Data Science (Duration: 15 hours)

Introduction: DDL, DML, DCL, DRL

Format- upper, lower, con-cat, in, like

Create, insert, constraints

Aggregate Functions

ALTER, DELETE, UPDATE

JOIN: Inner Join, outer join (left join, Right Join)

select, where, conditional, group by, order by

Union Except, correlated queries views

Hands On

Creating SQL

Total Duration for SQL – 15 hours (10 days approximately)

Module 5

Machine Learning and Deep Learning Algorithms (Duration: 15 hours)

(This includes packages like pandas, numpy, matplotlib, seaborn, sk-learn, nitk, wordcloud, stopwords, keras, tensorflow, tsa etc.)

- Simple linear Regression
- Multiple Linear Regression
- Polynomial Linear Regression
- Logistic Regression
- KNN
- Decision Tree

- Ensemble algorithms: Random Forest, Bagging and Boosting
- Regularization method: L1 and L2 Regularization
- Support Vector Machine
- Naive Bayes
- Natural Language Processing
- Pytesseract, Genism, polarity package

Clustering algorithm: K means and Hierarchical Clustering

Timeseries algorithm

Web scrapping using beautiful soup

Deep Learning Algorithms: Artificial Neural Network

Convolution Neural Network

Case study 1 & 2

Identifying Spam

Making Product Recommendations

Customer Segmentation

Image & Video Recognition

Hands On

Case study 1

Total Duration for Machine Learning & Deep Learning Algorithm – 15 hours (10 days)

Module 6

Tableau (Duration: 10 hours)

- Tableau Products and Usage
- Tableau Filters and Visualization Interactivity

- Basic Charts on Tableau
- Maps and Images in Tableau

- Connecting with Multiple Sheets and Data Sources
- Advanced Charts in Tableau and Analytical Techniques

Hands On

- https://www.tableau.com/learn/tutorials/on-demand/tableau-interface?playlist=230069
- https://www.tableau.com/learn/tutorials/on-demand/relationships?playlist=230071

- Mapping

Total Duration for Tableau – 10 hours (6 days approximately)

Module 7

MongoDB (Duration: 24 hours)

What is MongoDB?

Modelling for MongoDB

Importing, Exporting, and Querying Data

Code and Queries

Creating and Manipulating Documents

The Life Cycle of an Application and Additional Resources

Indexing and Aggregation Pipeline

Introduction & Setup

Next Steps

The Mongod

Concepts of RDBMS and MongoDB

Replication

- Sharding

- Internal Authentication

- Tying It All Together

- Database User Authentication

- Role-Based Access Control

Hands-On

- Install and Start MongoDB

Total Duration for MongoDB – 24 hours (16days approximately)

Module 8

Graph QL (Duration: 3 hours)

- Graph QL is the better REST

- Core Concepts

- https://www.howtograph-ql.com/basics/2-core-con-cepts/?autoplay%22%20%EF%BF%BDHYPER-LINK%20%22https://www.howtographql.com/ba-sics/3-big-picture/

- Clients

- Server

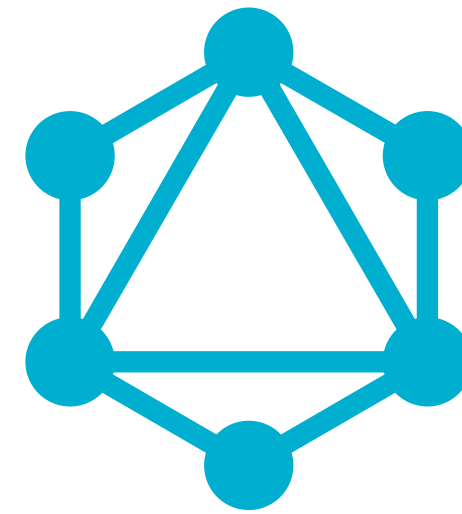- More Graph QL Concepts

- Tooling and Ecosystem

- Security

Hands On

- Install and Start Graph QL

Total Duration for Graph QL – 3 hours (2 days approximately)

There will be a 3 hours of practical lab work depending on the subject on a daily basis.

Tools Covered

Staffing and Placement

After the internship is completed, you would be provided with effective placement assistance by our experienced staffing professionals to make you land a job in one of the top MNCs in India. Besides, based on your performance you'll have the opportunity to get placed at any of the Cyber Chasse's affiliated companies that have global presence.

The candidates will be supported in the following ways:

Resume modification assistance

Use of power points for core skills enhancement

Maintaining the format to comply the ATS systems used by employers, to ensure professionalism

Putting the details of the internship with Cyber Chasse

Interview process support

- Use of power points for core skills enhance-

- Conducting mock calls

- Assisting with study materials for more exposure

Marketing

- Submitting resumes to diverse organizations

- Arranging for interviews

- Briefing about requirements and assisting in interview preparation

- Briefing about the company before the interview
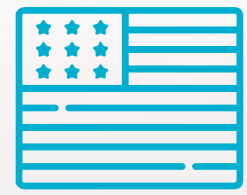
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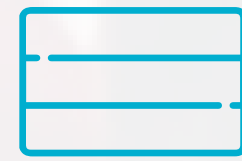**Cyber Chasse's top clients:**

Finally, follow-ups to ensure closure

Immigration

We also offer immigration services to all candidates looking for an internship abroad.

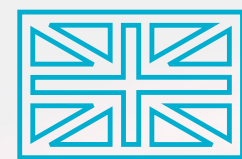J1 visa for internship in the USA

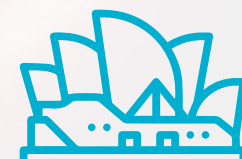Type C/Schengen visa for internship in Germany

Training Employment Pass for internship in Singapore

Mission visa for internship in Dubai

Tier 5 visa for internship in the UK

Special Program visa for internship in Australia

Work permit for internship in Canada

About Us

Cyber Chasse Learning Academy is a leading virtual training platform that focuses on the cuttingedge

technology tools.

We aid aspiring candidates learn and acquire knowledge of technologies

that transform the world. Our course is carefully designed to let you stay ahead of the curve in

the job market. All our experienced trainers impart excellent training in a fun and engaging way.

Besides, we offer placement assistance to help candidates land their dream job.

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