

**ADVANCE GRADUATE PROGRAMME**

**DATA SCIENCE**

**\*DESIGNED AND CURATED BY EX GOOGLE EMPLOYEES IN UK. READY TO WORK SYLLABUS.**



**1 Million**  
Learners



**1:1 Personalized**  
Mentorship



**55% Average**  
Salary Hike

# ADVANCE DATA SCIENCE PROGRAMME

## JOB ASSURED PROGRAMME

### Hottest **Job of 21st Century**



MOST DESIRABLE JOBS IN  
2024



CONSIDERED THE SKILL OF THE  
FUTURE BY TOP UNIVERSITIES



ONE OF THE HIGHEST PAID  
SKILLS IN THE WORLD



CONSTANT DEMAND IN THE  
MARKET



DATASCIENCE IS THE  
TECHNOLOGY OF THE FUTURE



THERE IS A CURRENT DEMAND  
OF OVER 500000 DATA  
SCIENCE.

### Our **Credentials**



**1 Million +**

Aspiring Active Students



**1,000+**

Industry-expert Instructors



**400+**

Hiring Partners



**500+**

Corporates Upskilled



**55%**

Average Salary Hike



**155+**

Countries' Learners

## Who Can **Apply for the Course?**

- ✓ Freshers and Undergraduates willing to pursue a career in **Data Science**
- ✓ Anyone looking for a career transition to **Data Science**
- ✓ IT Professionals
- ✓ Experienced Professionals willing to learn **Data Science**
- ✓ Technical and Nontechnical Professionals with basic-level programming knowledge can also apply
- ✓ Project Managers

## Application **Process**

The application process consists of three simple steps. Candidates have to submit their application. An offer of admission will be made to the selected candidates, and their application will be accepted upon the payment of the admission fee.

1

### **SUBMIT APPLICATION**

Tell us a bit about yourself and why you want to join



2

### **ADMISSION TEST & APPLICATION REVIEW**

Clear the admission test and have a personal interview with our interview panel



3

### **ADMISSION LETTER**

Shortlisted candidates would be offered the admission letter





# About Program

Join this Data Science course with BrowseJobs and become a Data Scientist, featuring exclusive hackathons, masterclasses, and askme-anything sessions. Gain hands-on experience in Python, SQL, Excel, Machine Learning, Tableau, Generative AI, prompt engineering, ChatGPT, and more. Elevate your knowledge through live interactions with industry experts.



**Learning Format**  
Online Boot Camp



**3 Months**  
Live Classes



**Career Services**  
BrowseJobs



**Data Engineering**  
Certification

## Key Highlights

- ✓ 3 Months of Live Sessions by Industry Experts
- ✓ 200 Hrs of Self-paced Videos
- ✓ 24\*7 Support
- ✓ Integrated with Browsejobs
- ✓ Flexible Schedule
- ✓ Soft Skills Essential Training
- ✓ Career Guidance
- ✓ One-on-One with Industry Mentors
- ✓ 50+ Industry Projects & Case Studies
- ✓ E-learning Videos from Browsejobs
- ✓ Lifetime Free Upgrade
- ✓ Dedicated Learning Management Team

## Program Pedagogy



**Instructor-led Training**  
Get trained by top industry experts



**Dedicated Learning Management Team**  
To help you with your learning needs



**Self-paced videos**  
Learn at your own pace with world-class content



**Projects and Exercises**  
Get real-world experience of projects



**Hackathons**  
Get a sense of how real projects are built



**Peer Networking and Group Learning**  
Improve your professional network and learn from peers



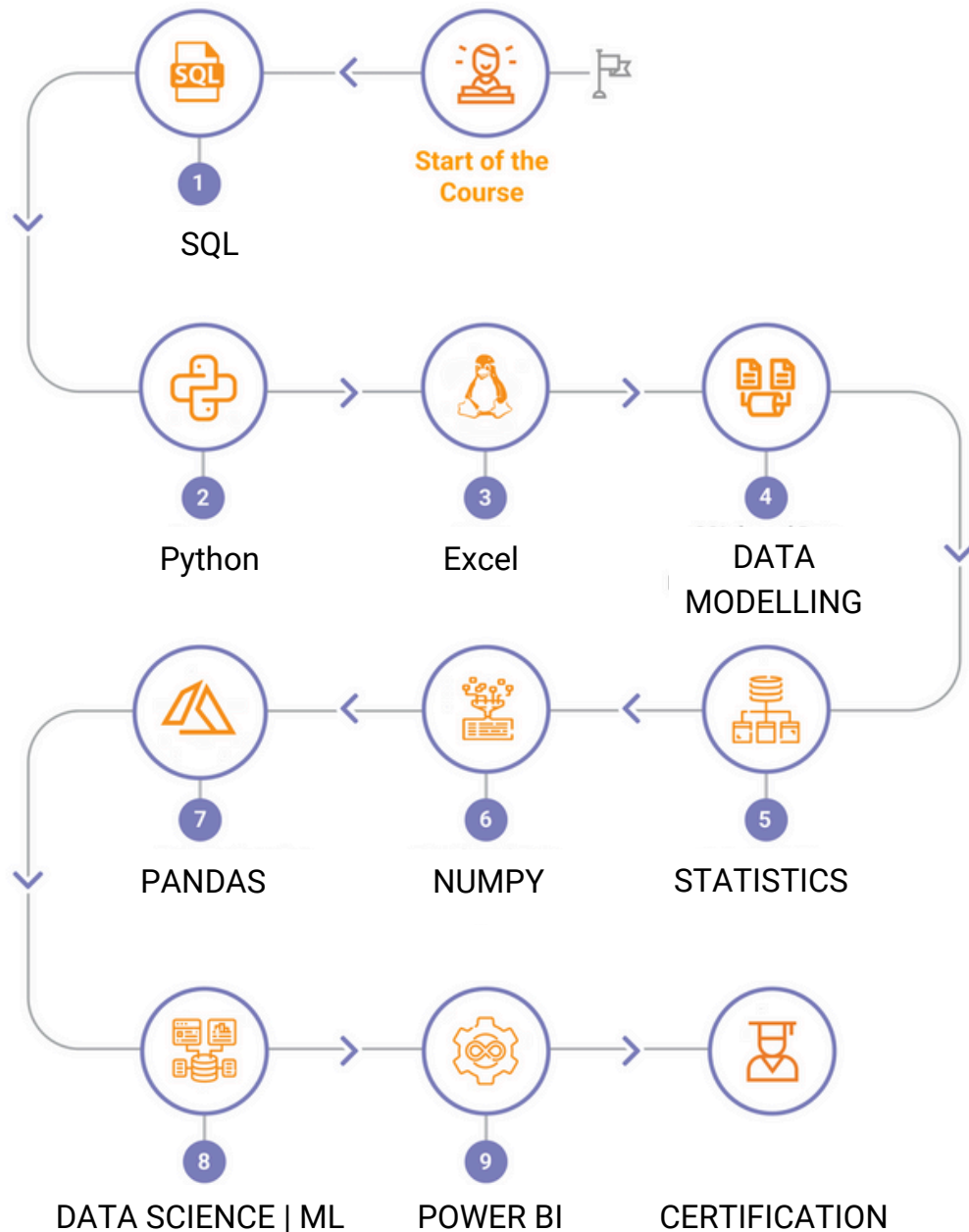
**Gamified Learning**  
Get involved in group activities to solve real-world problems



**1:1 Personalized Learning**  
Hands-on exercises, project work, quizzes, and capstone projects

## Live Courses

- Live Courses
- Self-paced



- INTERVIEW PREPERATION
- MOCK INTERVIEWS
- REAL TIME PROJECTS
- LLOYDS, HSBC, CBRE, ING PROJECTS

## Module 1: Introduction to Python

- Introduction to Python Programming
- Python Syntax and Data Structures
- Control Flow and Loops
- Functions and Modules
- File Handling in Python
- Error Handling and Exception Handling

## Module 2: Python for Data Analysis

- Introduction to Python Programming
- Data Types, Variables, and Operators
- Control Structures: Loops and Conditional Statements
- Functions and Modules in Python
- Introduction to NumPy and Pandas Libraries for Data Analysis
- Data Manipulation and Analysis with Pandas DataFrame

## Module 3: Data Visualization with Matplotlib and Seaborn

- Introduction to Data Visualization
- Basic Plotting with Matplotlib
- Customizing Plots with Matplotlib
- Introduction to Seaborn for Statistical Data Visualization
- Advanced Visualization Techniques with Seaborn

## Module 4: Introduction to SQL

- Introduction to Relational Databases
- Basics of SQL (SELECT, FROM, WHERE, etc.)
- Filtering and Sorting Data
- Aggregating Data with GROUP BY
- Advanced Excel Functions for Data Analysis
- Join Operations (INNER JOIN, LEFT JOIN, etc.)
- Subqueries and Common Table Expressions (CTEs)

## Module 5: Advanced SQL

- Window Functions and Analytical Queries
- Advanced Joins and Set Operations
- Performance Optimization Techniques
- Indexing and Query Tuning
- Working with Date and Time Data
- Working with Hierarchical Data (Nested Sets, CTEs)

## Module 6: Data Manipulation with SQL

- Inserting, Updating, and Deleting Data
- Data Cleaning and Transformation
- Conditional Logic in SQL
- Case Statements and Control Flow Functions
- String and Text Manipulation
- Handling Missing Data in SQL

## Module 7: Introduction to NumPy

- Introduction to NumPy Arrays
- Array Creation and Initialization
- Indexing and Slicing NumPy Arrays
- Array Operations and Broadcastig
- Array Manipulation and Reshaping
- Universal Functions (ufuncs) in NumPy

## Module 8: Advanced NumPy

- Linear Algebra Operations with NumPy
- Statistical Functions in NumPy
- Random Number Generation with NumPy
- File Input and Output with NumPy
- Broadcasting and Vectorization Techniques
- Memory Management and Performance Optimization in NumPy

## Module 9: Data Cleaning and Preprocessing with Python

- Handling Missing Values
- Data Imputation Techniques
- Data Transformation and Standardization
- Feature Scaling and Normalization
- Encoding Categorical Variables
- Handling Outliers and Anomalies

## Module 10: Integration of Python, Pandas, SQL, and NumPy

- Performing Data Analysis and Manipulation with Pandas
- Data Visualization with Matplotlib and Seaborn
- Extracting Data from Relational Databases using SQL
- Data Preprocessing and Feature Engineering with NumPy
- Integration of Python Libraries for End-to-End Data Science Projects

## Module 11: Capstone Project

Students work on a real-world data science project, leveraging the knowledge and skills acquired throughout the course to solve a specific problem or address a business challenge.

## Module 12: Best Practices and Advanced Topics

- Code Optimization and Efficiency Techniques
- Writing Efficient SQL Queries
- Advanced Data Cleaning and Preprocessing Strategies
- Introduction to Additional Python Libraries for Data Science
- Deployment of Data Science Models and Pipelines



## Module 13: Introduction to Data Science

- Overview of Data Science
- Role of a Data Scientist
- Data Science Lifecycle
- Data Science Tools and Technologies
- Ethical and Legal Considerations in Data Science

## Module 14: Mathematics and Statistics for Data Science

- Descriptive Statistics
- Probability Theory
- Inferential Statistics
- Hypothesis Testing
- Linear Algebra for Machine Learning
- Calculus for Optimization

## Module 15: Data Wrangling and Exploration

- Data Acquisition and Cleaning
- Data Transformation and Preprocessing
- Exploratory Data Analysis (EDA)
- Data Visualization Techniques
- Feature Engineering

## Module 16: Machine Learning Fundamentals

- Introduction to Machine Learning
- Supervised Learning vs. Unsupervised Learning
- Model Evaluation and Validation
- Bias-Variance Tradeoff
- Cross-Validation Techniques
- Hyperparameter Tuning

## Module 17: Supervised Learning Algorithms

- Linear Regression
- Logistic Regression
- Decision Trees and Random Forests
- Support Vector Machines (SVM)
- k-Nearest Neighbors (kNN)

## Module 18: Unsupervised Learning Algorithms

- K-Means Clustering
- Hierarchical Clustering
- Principal Component Analysis (PCA)
- t-Distributed Stochastic Neighbor Embedding (t-SNE)
- Association Rule Learning

## Module 19: Advanced Machine Learning Techniques

- Neural Networks and Deep Learning
- Convolutional Neural Networks (CNN)
- Recurrent Neural Networks (RNN)
- Transfer Learning
- Reinforcement Learning
- Time Series Analysis and Forecasting

## Module 20: Big Data Technologies

- Introduction to Big Data
- Distributed Computing Frameworks (Hadoop, Spark)
- NoSQL Databases (MongoDB, Cassandra)
- Stream Processing (Kafka, Flink)
- Cross-Validation Techniques
- Cloud Computing Platforms (AWS, Azure, Google Cloud)

## Module 21: Natural Language Processing (NLP)

- Text Preprocessing Techniques
- Bag-of-Words Model
- Word Embeddings (Word2Vec, GloVe)
- Named Entity Recognition (NER)
- Sentiment Analysis
- Topic Modeling (LDA, LSA)

## Module 22: Data Science Project Management

- Project Planning and Scoping
- Data Collection and Preparation
- Model Development and Evaluation
- Model Deployment and Monitoring
- Collaboration and Communication in Data Science Teams
- Agile Methodologies in Data Science Projects

## Module 23: Capstone Project

Students work on a real-world data science project, applying the knowledge and skills acquired throughout the course to solve a specific problem or address a business challenge.

## Module 24: Emerging Trends in Data Science

- Deep Learning Applications
- Explainable AI
- Automated Machine Learning (AutoML)
- Edge Computing and IoT Analytics
- Ethical AI and Responsible AI Practices





# Browsejobs Career Services



**500+**  
Webinars



**600+**  
Job Shares



**400+**  
Hiring Partners



**55%**  
Avg. Salary Hike\*

## What Makes Us **Tick**



### Career-oriented Sessions

Attend 10+ career-oriented sessions by industry mentors and prepare your career trajectory



### Profile Building

Craft a Data Engineers resume and LinkedIn profile to make an impression on top employers



### Mock Interview Preparation

Prepare with mock interviews including most asked questions by top employers



### 1:1 Mentoring Sessions

Get 1:1 guidance at every step in your career transition to Data Engineers



### Assured Interviews

Get job Opportunities with Top MNC's & Startups upon movement to Placement Pool\*\*



### Dedicated Job Portal Access

Get exclusive access to 200 job postings per month on browsejobs job portal



### Job Fairs

Job fairs are conducted regularly to introduce learners to major organizations



### Hackathons

Work in teams and get exclusive access to hackathons



## **BROWSEJOBS**

### **About Browsejobs**

We are Browsejobs, an award-winning digital consulting firm, globally recognized for our exceptional service in the field of artificial intelligence (AI), data science, and software development. With roots dating back to 2013 in London, we are known for providing state-of-the-art technology solutions that drive business performance and enable future readiness. We expanded our operations to India in 2020 and have since been voted the Most Trusted Consulting Firm in India in 2023.



1 Million

Learners & 500+ Corporates across 5+ Countries  
upskilling on Browsejobs Platform



## Contact Us

INDIA

UK

UAE

### INDIA

+91 7847006048 | +91 9861163654 | +91 8431814749 | +91 8618519825

### UK

+44 7825 904092 | +44 7894574003

[info@ibrowsejobs.com](mailto:info@ibrowsejobs.com)

[www.browsejobs.in](http://www.browsejobs.in)



**BROWSEJOBS**