

# Become a *Data Analyst*



Data Analytics Syllabus

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## **Career Training**

Our 6-month intensive training program will equip you with the essential Data Analyst skill set and get you job-ready. You will learn the fundamentals of Data Analytics, get hands-on experience, and develop a stellar portfolio with real-world projects that are sourced from the world's leading tech companies.

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## **Career Accelerator**

After the 6-month program, you will join the Career Accelerator until you find a job. You will focus on searching for a job in Data Analytics while developing Mastery Projects solving real-life business problems. You will continue to develop your technical skills and gain more hands-on experience while learning the art and science of getting hired in tech.

## *Endless Career Growth*

Our goal is to ensure that you build an inspiring career. This means we're here for you even after being hired for your first role. As our graduate, you will become a part of our vibrant alumni community, gain access to exclusive events and workshops, and get the undivided support of our team whenever you start thinking about the next step in your career journey.

## Tech Foundations

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During the first unit of our program, we will lay the groundwork with the tech fundamentals you need to succeed. Learn programming with Python, practice algorithmic thinking, and complete your first coding project. In addition, this unit will teach you time management skills, touch typing, and how to use keyboard shortcuts to work effectively.

**Sprint 1**      Programming with Python 1

**Sprint 2**      Programming with Python 2

**Sprint 3**      Your first coding project

**Sprint 4**      Practice Week

### Concepts covered:

- Python
- Problem Solving
- Algorithmic Thinking
- Time Management
- Touch Typing
- Keyboard Shortcuts

## Basic & Intermediate SQL

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Modern Data Analysts work with bigger datasets than ever before, and SQL is the main programming language to work, translate, and aggregate data with. Think of SQL (Structured Query Language) as Excel on steroids, but with code. In DA103, you will learn how to write SQL queries to retrieve, combine, and aggregate data. Each week, you will tackle a new business case based on real-life use cases and applications, and we will highlight the elements that will most likely come up in interviews as well.

**Sprint 1** Databases, Selecting and Filtering Data from Tables

**Sprint 2** Aggregating Data to Extract Business Insights

**Sprint 3** Combine Data from Tables Using JOINS

**Sprint 4** Practice Week

### Concepts covered:

- SQL Query Structure
- Database types
- Data types
- Aggregation Functions
- Joins
- Unions
- Filtering data

## Advanced SQL

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In this unit, we will continue and build on top of the SQL skills we covered in the previous unit. You will learn how to combine data even when it is stored in many different tables. Additionally, you will learn how to clean real-life data that is unorganized and incomplete. By the end of this unit, you will become interview-ready and be able to answer common SQL interview questions, and pass tests that you can expect to receive during your Data Analyst interviews!

- Sprint 1**      Combining Data with Multiple Joins
- Sprint 2**      Cleaning and Analyzing Messy Data
- Sprint 3**      Creating and Using Temporary Tables
- Sprint 4**      Practice Week

### Concepts covered:

- Multiple Joins
- Table Modifiers
- Multiple Join Keys
- Coding Best Practices for Advanced Code
- String Functions
- Date functions
- REGEXP
- WITH statements and CTEs
- WINDOW functions
- PIVOT/UNPIVOT

## Data Storytelling

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Knowing how to tell a coherent and convincing story when communicating your analysis results is key to your success as a data analyst. In this unit, you will be working with Google Sheets, a popular spreadsheet software, and Tableau, a widely-used BI (Business Intelligence) tool. You will also learn the design principles behind good data visualizations. By the end of this unit, you will be able to communicate your analysis results through clear data visualizations, beautiful presentations, and self-explanatory dashboards.

- Sprint 1**      Data Visualization and Analysis in Spreadsheets
- Sprint 2**      Data Visualization and Analysis in Tableau
- Sprint 3**      Dashboards and Storytelling in Tableau
- Sprint 4**      Practice Week

### Concepts covered:

- Types of Data Visualizations
- Design Principles for Visualization
- Introduction to Spreadsheets
- Spreadsheet Functions
- Pivot Tables and Charts
- Introduction to Tableau
- Filters and Calculated Fields
- Dashboards and Stories
- Understanding Your Audience
- Exploratory Data Analysis

## Analytical Thinking

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Being a Data Analyst is more than crunching and charting data. Exploring data in a methodical way and applying a variety of analytic frameworks are key to driving business outcomes. In this unit, you will develop your analytical thinking skills by performing exploratory data analysis, applying statistics to distinguish signal from noise, and making predictions with regression models. To do so, you'll become familiar with Python's various libraries for data analytics, including Pandas, Seaborn, and Statsmodels. By the end of this unit, you will understand how to apply these techniques in any business context.

- Sprint 1**      Introduction to Pandas
- Sprint 2**      Statistics and Visualization
- Sprint 3**      Regression and EDA
- Sprint 4**      Practice Week

### Concepts covered:

- Python Fundamentals Review
- Data Manipulation in Pandas
- Probability Distributions
- Data Visualization in Seaborn
- Exploratory Data Analysis
- Predictive Models
- Linear and Logistic Regression in Statsmodels

## Mastery Project

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This project is the culmination of all the skills and knowledge you have acquired throughout the Data Analytics Program. It presents an excellent opportunity to showcase your abilities and demonstrate how they all fit together. By connecting the dots, you will see how each individual and tech-tool component contributes to the project's overall success.

Moreover, this project offers a chance to gain practical experience and apply what you have learned in a real-world setting. This will enhance your understanding of the subject matter and increase your confidence in your abilities. Ultimately, this project will be a valuable learning experience that will aid your personal and professional growth.

**Sprint 1**      Mastery Project

**Sprint 2**      Mastery Project

**Sprint 3**      Mastery Project

**Sprint 4**      Practice Week



# Career acceleration to land your first Data Analytics role, and beyond.

During the Career Accelerator, you will be actively looking for your first full-time Data Analytics role. You will be learning everything you need to know about how to get hired for your dream job at a top tech company, while continuing to develop your technical and soft skills. Our goal here is to make you the ideal candidate for the role you are after, and to help you start your career as early as possible.

## **Mastery Projects**

The Career Accelerator features Mastery Projects that use multiple skills and tools to tackle real-world business problems. This will help you gain valuable hands-on experience, improve your skills, and acquire advanced skills and methods. Each Mastery Project you complete will be added to your data analytics portfolio, bringing you one step closer to being hired.

Each project will combine several core skills and business concepts that you will learn during your core training. This includes SQL, Spreadsheets, Tableau, Python, A/B Testing, Funnel Analysis, and more.

## **Career Fundamentals**

In addition to practicing your tech skills, the Career Accelerator will equip you with the necessary skills and strategies to successfully navigate the job market and land your first job in the field.

We'll cover everything you need to learn to get and pass interviews.

### **Get Interviews:**

- Resume and LinkedIn optimization
- How companies make hiring decisions
- Effective application strategies
- Networking (online and offline)

### **Pass Interviews:**

- Interview questions practice
- Interview preparation and best practices
- HR interviews
- Home assignments

