

Data Analyst Certification Training

Course Curriculum: Your 12-module Learning Plan

<https://www.Hireyy.com>

About Hireyy

Hireyy is a leading e-learning platform providing live instructor-led interactive online training. We cater to professionals and students across the globe in categories like Big Data & Hadoop, Business Analytics, NoSQL Databases, Java & Mobile Technologies, System Engineering, Project Management and Programming. We have an easy and affordable learning solution that is accessible to millions of learners. With our students spread across countries like the US, India, UK, Canada, and many others, we have built a community of over 14000+ avid learners across the globe.

About Course

Hireyy's Data analysis online training will help you gain expertise in Python, SQL, Databases, Data visualisation, and Numpy. This Data analyst training and placement course is a gateway towards your career as a Data analyst with mock interviews and references for the 4 super organizations.

Powered Companies



Introduction to Data Analytics

- Course Introduction
- Modern Data Ecosystem
- Key Players in the Data Ecosystem
- Defining Data Analysis
- Viewpoints: What is Data Analytics?
- Responsibilities of a Data Analyst
- Viewpoints: Qualities and Skills to be a Data Analyst
- A Day in the Life of a Data Analyst
- Viewpoints: Applications of Data Analytics
- Data Analytics vs. Data Analysis
- Summary and Highlights

The Data Ecosystem

- Overview of the Data Analyst Ecosystem
- Types of Data
- Understanding Different Types of File Formats
- Sources of Data
- Languages for Data Professionals
- Overview of Data Repositories
- RDBMS
- NoSQL
- Data Marts, Data Lakes, ETL, and Data Pipelines
- Foundations of Big Data
- Big Data Processing Tools

Gathering and Wrangling Data

- Identifying Data for Analysis
- Data Sources
- How to Gather and Import Data
- What is Data Wrangling?
- Tools for Data Wrangling
- Data Cleaning
- Viewpoints: Data Preparation and Reliability

Mining & Visualizing Data and Communicating Results

- Overview of Statistical Analysis
- What is Data Mining?
- Tools for Data Mining
- Overview of Communicating and Sharing Data Analysis Findings
- Viewpoints: Storytelling in Data Analysis
- Introduction to Data Visualization
- Introduction to Visualization and Dashboarding Software
- Viewpoints: Visualization Tools

Career Opportunities and Data Analysis in Action

- Career Opportunities in Data Analysis
 - Viewpoints: Get into Data Profession
 - Viewpoints: What do Employers look for in a Data Analyst?
 - The Many Paths to Data Analysis
 - Viewpoints: Career Options for Data Professionals
 - Viewpoints: Advice for aspiring Data Analysts
 - Viewpoints: Women in Data Professions
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Python Basics

- Types
- Expressions and Variables
- String Operations

Python Data Structures

- List and Tuples
- Dictionaries
- Sets

Python Programming Fundamentals

- Conditions and Branching
- Loops
- Functions
- Exception Handling
- Objects and Classes

Working with Data in Python

- Reading Files with Open
- Writing Files with Open
- Loading Data with Pandas
- Pandas: Working with and Saving Data
- One Dimensional Numpy
- Two Dimensional Numpy

APIs, and Data Collection

- Simple APIs (Part 1)
- Simple APIs (Part 2)
- REST APIs & HTTP Requests - Part
- REST APIs & HTTP Requests - Part
- Optional: HTML for Webscraping
- Webscraping
- Working with different file formats (csv, xml, json, xlsx)

Introduction to Relational Databases and Tables

- Relational Database Concepts
- How to create a Database instance on Cloud
- Types of SQL statements (DDL vs. DML)
- CREATE TABLE Statement
- ALTER, DROP, and Truncate tables

Intermediate SQL

- Using String Patterns and Ranges
- Sorting Result Sets
- Grouping Result Sets
- Built-in Database Functions
- Date and Time Built-in Functions
- Sub-Queries and Nested Selects
- Working with Multiple Tables6m

Intermediate SQL

- How to Access Databases Using Python
- Writing code using DB-API
- Connecting to a database using ibm_db API
- Creating tables, loading data and querying data
- Analyzing data with Python9m

Importing Datasets

- The Problem
- Understanding the Data
- Python Packages for Data Science
- Importing and Exporting Data in Python
- Getting Started Analyzing Data in Python
- Accessing Databases with Python

Data Wrangling

- Pre-processing Data in Python
- Dealing with Missing Values in Python
- Data Formatting in Python
- Data Normalization in Python
- Binning in Python
- Turning categorical variables into quantitative variables in Python

Exploratory Data Analysis

- Exploratory Data Analysis
- Descriptive Statistics
- GroupBy in Python
- Correlation
- Correlation - Statistics
- Association between two categorical variables: Chi-Square

Model Development

- Model Development
- Linear Regression and Multiple Linear Regression
- Model Evaluation using Visualization
- Polynomial Regression and Pipelines Measures for In-Sample Evaluation
- Prediction and Decision Making

Model Evaluation

- Model Evaluation and Refinement
- Overfitting, Underfitting and Model Selection
- Ridge Regression
- Grid Search

Introduction to Data Visualization Tools

- Introduction to Data Visualization
- Introduction to Matplotlib
- Basic Plotting with Matplotlib
- Dataset on Immigration to Canada
- Line Plots

Specialized Visualization Tools

- Area Plots
- Histograms
- Bar Charts
- Pie Charts
- Box Plots
- Scatter Plots

Advanced Visualizations and Geospatial Data

- Waffle Charts
- Word Clouds
- Seaborn and Regression Plots
- Introduction to Folium
- Maps with Markers
- Choropleth Maps

Creating Dashboards with Plotly and Dash

- Dashboarding Overview
- Introduction to Plotly
- Introduction to Dash
- Make dashboards interactive

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- Module Overview and Learning Objectives
 - Additional Resources for Dashboards
 - Additional Resources for Plotly
 - Additional Resources for Dash
 - Additional Resources for Interactive Dashboards