





**Course Introduction** 

## What Is SQL?

Structured Query Language (SQL)







### What Is SQL?



- SQL is the mainstream language used to access databases.
- The databases are programs that enable clients to store and manage information in a logical manner.
- According to ANSI (American National Standards Institute), it is the standard language for RDBMS.
- SQL statements are used to perform tasks such as updating data on the database or retrieving data from a database.
- SQL has a wide range of applications in the industry.

### What Is MySQL?

MySQL is an open-source RDBMS used for developing dynamic and robust serverside or web-based software applications.

It supports a variety of operating systems and programming languages



It is owned by Oracle, which is used by a wide range of small and large companies

Oracle sells a commercially licensed version with premium support.



### Importance of MySQL

Data Security

Employs strong data security layers

On-demand scalability

Facilitates the administration of deeply embedded apps

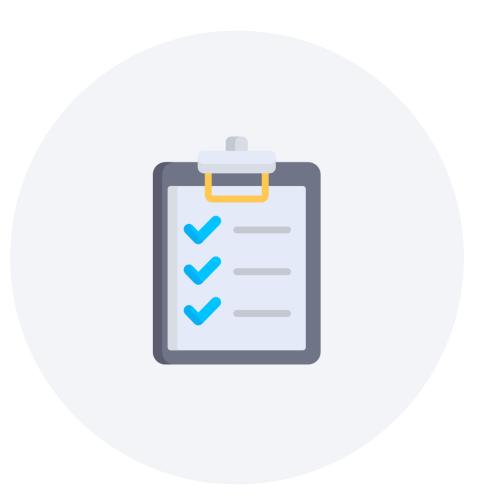
High performance

Is faster and gives users the access to all the features

Reduced total cost of ownership

Saves the cost as it is free and preinstalled on most hosting servers

# **Prerequisites**



There are no prerequisites.



### Learners

Programmers

Program Managers

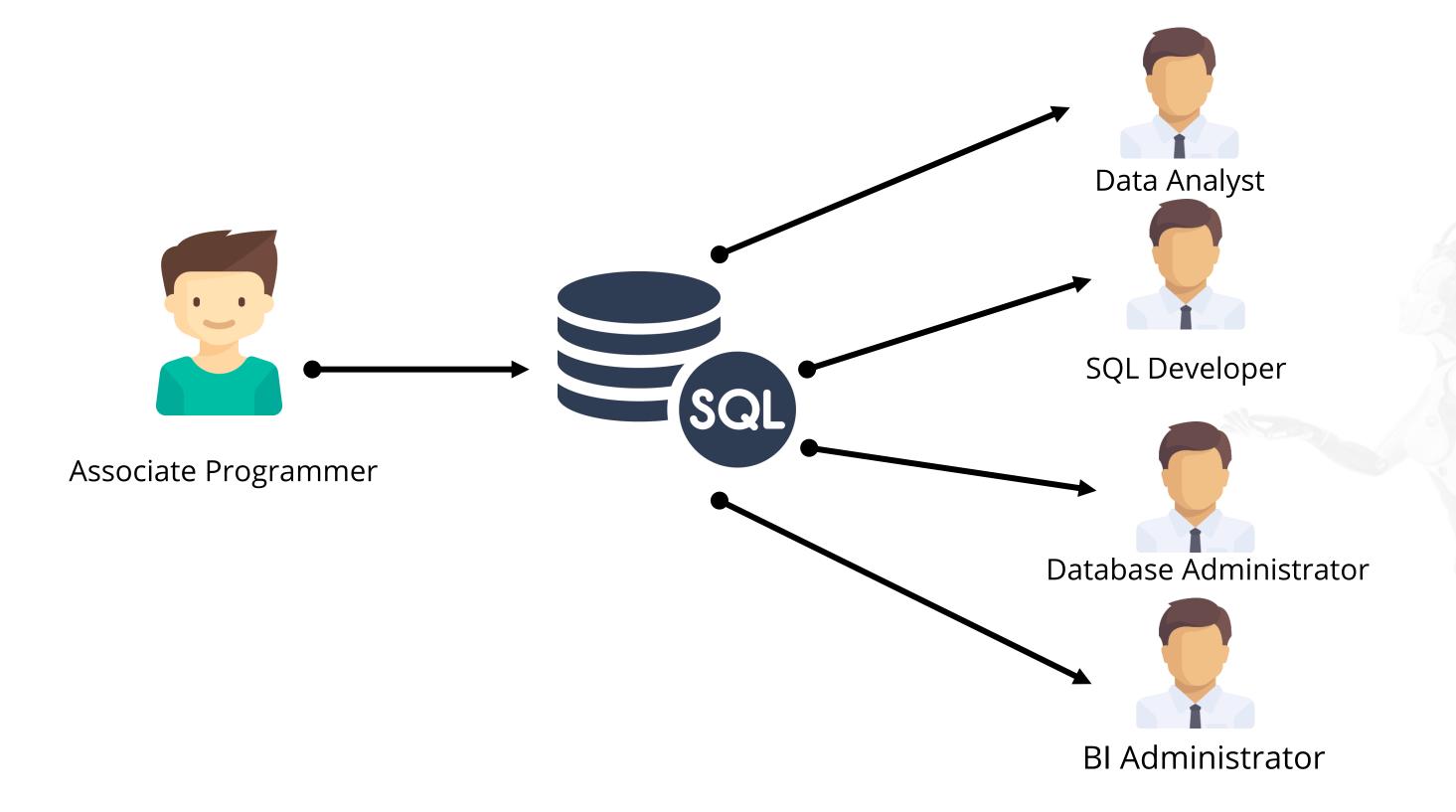


Software Developers

Learning Enthusiasts



## **Career Path With SQL**



## **Demand for SQL**

The demand for SQL is rapidly increasing in various data science fields.



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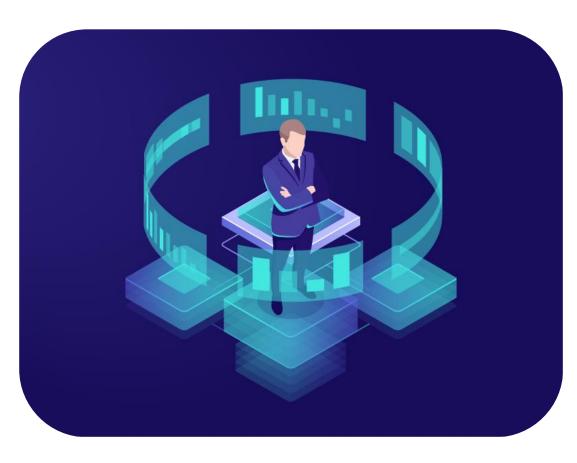
### **Companies Hiring Data Analysts**







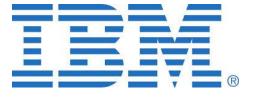
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### **Course Features**

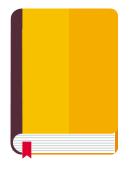
Self-paced learning content

Live virtual classes

Hands-on exercises



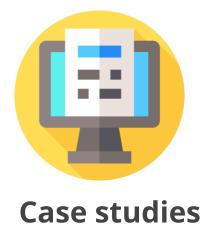
### **Course Features**



Theoretical concepts



Integrated labs

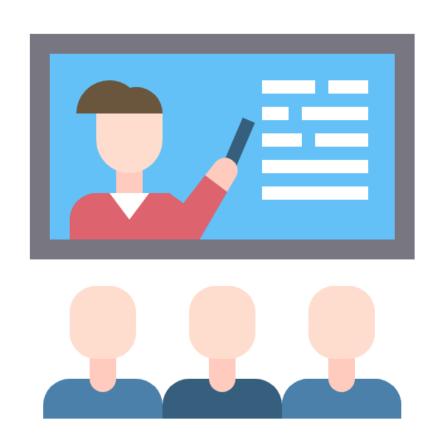




**Projects** 

### **Course Features**

Class sizes are limited to foster maximum interaction.



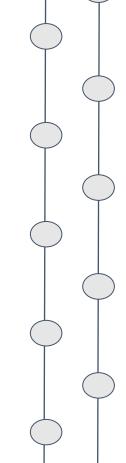


### **Course Outline**

- 1. Course Introduction
- 2. Introduction to SQL
- 3. Database Normalization and ER Modeling
- 4. MySQL Installation and Setup
- 5. Working with Database and Tables
- 6. Working with Operators, Constraints, and Data Types



- 8. Subqueries, Operators, and Derived Tables in SQL
- 9. Window Functions in SQL
- 10. Working with Views
- 11. Stored Procedures and Triggers
- 12. Performance Optimization and Best Practices in SQL



#### **Course Outcomes**



- Learn the basics of a database, SQL, and database normalization techniques
- Use data analysis techniques such as querying, filtering, sorting, and grouping
- Work with constraints and various data types supported in MySQL
- Use subqueries, operators, and derived tables to work with advanced operators
- Learn how to manipulate view and work with stored procedures and triggers
- Know about execution plans, common table expressions, and best practices used



## **Course Components**



E-books



Assisted practices



Assessments



Projects



Let's get started!