



# Database Management System (DBMS)

---

“Database: the information you lose when your memory crashes.”

~Dave Barry

## About Coding Ninjas

At Coding Ninjas, our mission is to continuously innovate the best ways to train the next generation of developers and transform how tech education is delivered. Training is designed and provided by professional developers turned educators who have experience working at bigwigs like Facebook, Amazon, Google etc. and are Stanford, IIT, IIIT alumni.

Coding Ninjas teaches 17+ Programming courses in Foundation, Advanced, Data & Development courses such as Machine Learning, Data Science, Web Development, Android and more.

## Doubt Support

We have developed a very scalable solution using which we are able to solve 4000+ doubts every single day with the help of 500+ doubts on the platform itself with an average rating of 4.8 out of 5.

## Placement Cell

**50,000<sup>+</sup>**

Students taught so far

**78%<sup>+</sup>**

Percentage placement

**2500<sup>+</sup>**

Students placed in top MNCs

**300<sup>+</sup>** Placement Partners

Number of placement partners and average salary of students

**7.6L** Average Salary

**100<sup>+</sup>**

Students received International job offers



# Ankush Singla

Co-Founder & Instructor

Ankush holds a Bachelor's degree in Computer Science from India's most premier institute- IIT Delhi and a Master's degree in Computer Science from Stanford University.

He is a coding enthusiast and has worked with bigwigs like Amazon and Facebook in the past.



**Live Mentor Support & Student Experience Team**

Dedicated TAs and Student experience team to make sure that your doubts get resolved quickly and you don't miss your deadlines.



**Want A Break? Pause Your Course**

Take a short break when you need it. Pause your course for upto 60 days. Resume when you are ready



**Get An Industry Recognised Certificate**

Get awarded with an industry recognised certificate after you complete your programming course



**Be A Part Of The Learning Community**

Slack groups to meet your batchmates. Learn from your peers about resources, doubts and more!

# Programme Overview

## ○ Course Overview

A DBMS course covers fundamental concepts such as Data, Database, DBMS, ER diagrams, Relational Models, ACID properties, SQL, Normalization. This course also introduces you to advanced topics like Transactions, Indexing, NoSQL databases and database optimization. Data is an important part of any software and there are many opportunities for people having the skills to work on data. The DBMS course makes you ready for job positions requiring database and SQL knowledge such as business analyst, data analyst, software engineer, SQL developer, data scientist for companies such as Oracle, Google, Amazon etc..

## ○ Features

150<sup>+</sup>

Questions

10<sup>+</sup>

hours of video  
content

DURATION: 2<sup>+</sup> MONTHS

## WHY DBMS

- Learns the fundamentals of DBMS and SQL through this course
- Explanation of core concepts followed by important questions/MCQs
- Industry relevant practice assignments
- Hands on experience via mini projects for SQL
- Prepares you for the interview process for job positions requiring DBMS and SQL knowledge

## Companies Hiring



## Placement after the course



Kushagra Gupta



sidharth pantula



Daksh Verma



## Course Outcome

- Learn to identify entities, attributes and different relationships to create ER Diagram
- Learn how to design Relational model for given problem statement
- Exhaustive coverage of questions asked in interviews
- Industry relevant problem statement for better preparedness
- Dedicated SQL platform to run your queries in real-time and check for correctness
- Get job ready for role requiring DBMS and SQL



# Detailed Course Contents:

Lecture Name	Description
Introduction to DBMS	What is Data, What is information, What is database, Before the arrival of databases , What is database management systems
Data Modeling	Introduction to Data Models, Types of Data Models, Database Architecture, Three-Schema Architecture, Data Independence and its types
Entity-Relationship Model	Introduction to ER Models, Components of ER Diagrams, Entity, Attributes , Relationship and their types, Creating an ER Diagram
Relational Model	Relational Model Concepts, Properties of a table, Database keys, Integrity rules and constraints, Relational Algebra
SQL	Introduction to SQL, SQL commands such as Data Definition Language (DDL), Data Query Language (DQL), Data Manipulation Language (DML), Data control language (DCL), Transaction Control Language (TCL),Creating Database and Tables, Fundamental Queries, Aggregate functions, Joins,Subqueries, Set Operations, Stored Procedures,
Normalization	Functional dependencies, Anomalies : insert, update, delete, Normalisation,Types of normal forms- 1NF, 2NF, 3NF, BCNF.
Transactions	What are Transactions?, ACID properties: Atomicity, Consistency, Isolation, Durability, State of transactions

Lecture Name	Description
Indexing	Indexing in DBMS, Indexing Methods, Primary index, Ordered index: Dense and Sparse index, Clustering index, Secondary index
Classification of Databases	Introduction to different types of databases, Relational database, Object-oriented database, Network database, Hierarchical database
NoSQL Databases	Introduction to NoSQL databases, Why are NoSQL Databases needed, Features of NoSQL databases, Types of NoSQL databases; Key-value Pair Based, Column-oriented Graph, Graphs based, Document-oriented
Database optimization	Concurrency Control, Partitioning, Clustering, Sharding



 **1800-123-3598**

 **contact@codingninjas.com**

 **codingninjas.com**

---

**Follow us on**

---

