Welcome to ineuron.ai


Fundamentals of Database

**Description:**

By taking up this course, you will learn the fundamentals of Databases along with SQL concepts such as Datatypes, Operators, Expressions, DDL, DML, TCL, DQL, and many more. Upon successful completion of the course, students will be able to create their Databases and also will be able to manage pre-existing Databases.

**Start Date:**

**Doubt Clear Time:**

**Course Time:**

**Features:**

# Online Instructor-led learning

# Practical Implementation

# Integrate academic knowledge with the tech

# Real-time Project

# Live Class Recording

# Doubt Clearing

# Assignment in all the Module

# Quiz in every Module

# Career Counselling

# Completion Certificate

**What we learn:**

# Introduction of Database

# Introduction to DBMS

# Types of DBMS

# Object-oriented Database

# Introduction to SQL

# Features of SQL

# Applications of SQL

# Datatypes in SQL

# SQL operators

# SQL Data Definition Language

# SQL Data Manipulation Language

# SQL View

**Requirements:**

# Interest to learn

# Dedication

# System with good internet connection

**Instructor:**

## >Introduction to Database:

>>Dashboard overview

>>Course overview

>>Who is this course for?

>>Course outcome

>>What is a database?

>>Why you should learn database?

>>History of database

>>Types of database

>>What is DBMS?

>>Types of DBMS

>>What is a hierarchical database?

>>What are network databases?

>>What are relational databases(RDBMS)?

>>What is a object oriented database?

## >Assignment 1:

>>How would you distinguish RDBMS apart from other databases?

## >SQL Introduction:

>>What is SQL?

>>History of SQL

>>Features of SQL

>>Applications of SQL

>>Why we should learn SQL?

>>Prerequisites to learn SQL

>>SQL comments

>>What is SQL server languages?

>>Types of SQL server languages

>>Online SQL Server Editor

**>Assignment 2:**

>>What kinds of real-time applications can be created with SQL?

**>SQL Syntax:**

>>SQL Syntax

>>SQL Keywords

>>SQL Comments

>>SQL Commands

>>SQL Statements

**>Assignment 3:**

>>Write SQL syntax for WHERE and SELECT clause.

**>SQL Datatypes:**

>>What are the SQL datatypes?

>>Why we use datatypes in SQL?

>>String data types

>>Numeric data types

>>Date and Time data types

>>Binary datatypes

>>MISC dataypes

**>Assignment 4:**

>>Do categorized SQL datatypes with examples for real time applications?

**>SQL Operators:**

>>What is an SQL operator?

>>Why we use SQL operator?

>>Types of SQL operator

>>SQL Arithmetic operators

>>SQL Comparison operators

>>SQL Logical operators

**>Assignment 5:**

>>Write SQL syntax using arithmatic and logical operators.

**>SQL Expressions:**

>>What is SQL expression?

>>Why we use SQL expression?

>>Types of SQL expression

>>Boolean expression

>>Numeric expression

>>Date expression

**>Assignment 6:**

>>Write at least three SQL queries with boolean and numeric expressions

**>SQL DDL:**

>>What is SQL data definiton language(DDL)?

>>Types of DDL

>>CREATE command

>>DROP command

>>ALTER command

>>TRUNCATE command

>>COMMENT command

>>RENAME command

**>Assignment 7:**

>>Write six SQL queries using all DDL commands for student database.

**>SQL DML:**

>>What is SQL data manipulation language(DML)?

>>Types of DML

>>INSERT command

>>UPDATE command

>>DELETE command

**>Assignment 8:**

>>Write three SQL queries using all DML commands for student database.

**>SQL DCL:**

>>What is SQL data control language(DCL)?

>>Types of DCL

>>GRANT command

>>REVOKE command

**>Assignment 9:**

>>Write two SQL queries using all DCL commands for student database.

**>SQL DQL:**

>>What is SQL data query language(DQL)?

>>SELECT command

**>Assignment 10:**

>>Write SQL queries using SELECT commands for student database.

**>SQL Functions:**

>>What is SQL function?

>>Why we use SQL function?

>>Types of SQL functions

**>Assignment 11:**

>>Write SQL queries using AVG(), COUNT(), FIRST(), LAST(), MAX(), MIN(), SUM() fo

**>SQL Sub queries:**

>>What are the SQL subqueries?

>>Types of SQL Subqueries

>>Subquery with Statements

**>Assignment 12:**

>>Write three SQL qureries using subqueries for student database.

**>SQL Clauses:**

>>What is SQL clauses?

>>Types of SQL clauses

>>Group by clause

>>Having clause

>>Order by clause

**>Assignment 13:**

>>Write three SQL qureries using SQL clauses Group by, Having, Order by for student

**>SQL Joins:**

>>What is SQL Joins?

>>Importance of SQL Joins

>>Types of SQL Joins

>>Inner join with example

>>Left outer join with example

>>Right outer join with example

>>Full outer join with example

**>Assignment 14:**

>>Perform all join operations with subqueries for student database.

**>Other SQL Operations:**

>>Create database

>>Drop database

>>Create database table

>>Drop database table

>>Alter operation

>>SQL Constraints

>>SQL Not Null

>>SQL Primary Key

>>SQL Foreign Key

>>SQL Unique

**>Assignment 15:**

>>Create a family tree database using primary key & foreign key and perform all basic c

**>SQL Views:**

>>What is SQL Views?

>>Why we use it ?

>>Creating Views

>>Dropping views

**>Assignment 16:**

>>Perform SQL view operations for student database.

**>Project Work:**

>>Create an SQL database for your school classes, following things, should be included