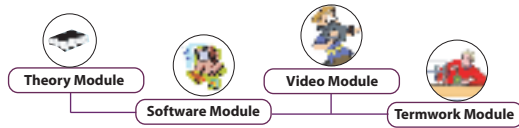


Database Management System



System Requirement:- IBM-PC Compatible with Window-OS, 128 MB RAM/Multimedia Kit

Theory module

Features : Theory, Figures, Photographs, Animations with controller, Highlighter tool, Note creation facility, Systematic page navigation, Printing facility, Access to Videos at appropriate locations.

List of Topics

Introduction to Database management System



Database concepts, Understanding database, basic file terminology , The database system enviroment, Types of database System, DBMS functions,The network database model, database models and the internet.

Introduction to Structured Query Language(SQL)

Introduction to **SQL**, Tables, Attribute, Tuple/Rows, field, data, Concept of string,Number value,date values, data Type and data integrity, Types of keys,

Oracle as **RDBMS** tool, **Introduction to Oracle**,

data Manipulation Language (DML) Commands,Data definition Language (DDL),Data Controllanguage(DDL),Transaction Control Language(DCL), Data type conversions Functions,Use of Logical Operators (AND/OR/NOT Operators),



Grouping records and Manipulating Data

Concepts of Grouping Records, Nested Grouping, Group Functions, Types of Group Functions, Group by Clause, grouping by more than One Column,Concept of Sub- Query,Types of Sub- Queries- Single Row and Multiple Row,Concept of Join, Result of Join,Types of Join,Sort Naming Convention for Tables (Table Aliases),manipulating data of a Table /Relation, Concept of DML(Data Manipulation Language), Copying Rows from Another Table Updating Rows/ Columns,Making Data Manipulation Permanent(COMMIT), Undo Data manipulation Permanent(ROLLBACK).

Entity Relationship Modelling

Basic Modeling Concepts, Data models: Degrees of Data abstraction,The conceptual Model,The Internet Model,The External Model,The Physical Model,The Entity Relationship(E-R) Model, E-R Model Components,Entities,attributes,Connectivity, cardinality, Existence Dependency, Relationship participation, Weak Entities, Recursive entities, Composite entities, Entity Supertypes and Subtypes, Developing an E-R Diagram, Converting an E-R model into a database structure, Comparison of E-R modeling symbols, The Challenge of database design: conflicting goals.



Business Computing and Database

Database and Database Users, A Brief History of Database applications, Early database application Using Hierarchical and Network Systems , Providing Application Flexibility & the Need for More Complex Dtabase, Interchanging Data on the web for e- Commerce,Extending Database capabilities for New Applications, Database system Concepts and Architecture, Data Models,Schemas and Instances, Categories of Data models, Schemas,instances and database state,Centralized **DBMSs** Architecture, Basic client/ server Architectures,Two-Tier client/ Server Architectures for **DBMSs**, Three -tier Client/ Server Arvhitecture for Web applications,Classification of Database Management Systems, data Modeling Using the Entity Relationship Model,An Example Database Application, Initial Conceptual Design of the company Database, relationship types, Relationship Sets, Roles & Structural Constrains, Enhanced Entity -Relationship and UML Modeling, Subclass, Superclass and Inheritance, Application of Data Mining,