

SQL QUIZ Content Outline

SQL Content Overview

This document outlines the key SQL concepts and operations covered from Days 3 to 5 of Week 4, providing a comprehensive overview of database fundamentals, SQL language components, data manipulation, and advanced querying techniques.

Introduction to Databases

- Comparison between File-based and DB-based systems
- Features of DBMS: query language, report generator, access security, backup & recovery

Database Elements

- Field, Record, Attribute, Row, and Table/Relation
- Properties of a Table/Relation

Database Design Elements

- Views
- Keys: Primary, Secondary, Candidate, Composite, Sort/Control, Foreign Key
- Data Modeling: Cardinality, Modality
- Entity Relationship Diagram (ER-Diagram)

SQL Introduction

- Overview of SQL language components

Data Definition Language (DDL)

- Create, Alter, Drop

Data Query Language (DQL)

Data Manipulation Language (DML)

- Insert, Update, Delete, Truncate

Data Control Language (DCL)

Transaction Control Language (TCL)

- Comment, Rename

Basic SQL Queries

- Select, Where, Like

Organizing Query Results

- Order By, Group By, Having

SQL Keywords and Operators

- Distinct keyword, And/OR operators, Division operator

Transaction Commands

- Commit, Rollback

Join Operations

- Inner, Outer, Left, Right Joins

Advanced SQL

- String operations and wildcards