

Department of Computing
Faculty of Engineering Sciences and Technology
Hamdard University



WEB ENGINEERING

Lab 01

Course ID

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Q.1)Write a difference between super key and compoiste key?

A.1)

SUPER KEY	COMPOSITE KEY
1. A set of one or more columns (attributes) that can uniquely identify each row in a table.	A key that consists of two or more columns used together to uniquely identify a row.
2. Super keys can contain extra attributes that are not necessary for uniqueness.	Ensures uniqueness of a record by combining two or more columns.
3. Not required to be minimal; can have additional columns beyond what's needed to ensure uniqueness.	Always a combination of two or more columns.
4. There can be many super keys in a table, as long as they can uniquely identify records.	Must contain only the necessary columns that together provide uniqueness.
5. Every candidate key is a super key, but not all super keys are candidate keys.	A composite key is a specific type of candidate key when multiple columns are required.

Q.2) Create two tables & Identify following from these tables:

- a) Candidate key
- b) Primary key
- c) Alternate key
- d) Foreign Key

A.2)

```
create database lab01;  
use lab01;
```

```
CREATE TABLE Students (  
    StudentID INT PRIMARY KEY,          -- Primary key --Candidate key  
    StudentName VARCHAR(100),  
    Email VARCHAR(100) UNIQUE,          -- Alternate key --Candidate Key  
    CourseID INT                        -- Foreign key  
);  
CREATE TABLE Courses (  
    CourseID INT PRIMARY KEY,           -- Primary key --Candidate Key  
    CourseName VARCHAR(100),  
    Instructor VARCHAR(100)  
);
```