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| Ch3  The Term | Definition |
| SQL data-definition language (DDL | allows the specification of information about relations. |
| Domain Types in SQL | **char(n).** Fixed length character string, with user-specified length *n.*  **varchar(n).**  Variable length character strings, with user-specified maximum length *n.*  **int.** Integer (a finite subset of the integers that is machine-dependent).  **smallint.** Small integer (a machine-dependent subset of the integer domain type).  **numeric(p,d).** Fixed point number, with user-specified precision of *p* digits, with *n* digits to the right of decimal point.  **real, double precision.** Floating point and double-precision floating point numbers, with machine-dependent precision.  **float(n).** Floating point number, with user-specified precision of at least *n* digits. |
| SQL data-manipulation language (DML | * provides the ability to query information ,and insert, delete and update tuples |
| The result of an SQL qu | The result of an SQL query is a relation |
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| select clause | list the attributes desired in the result of a query |
| where clause | specifies conditions that the result must satisfy. |
| from clause | lists the relations involved in the query |
| Danger in natural join | beware of unrelated attributes with same name which get equated incorrectly |
| Nested Subqueries | **A common use of subqueries is to perform tests for set membership, set comparisons, and set cardinality.** |
| subquery | is a **select-from-where** expression that is nested within another query. |
| exists construct | **Is** construct returns the value **true** if the argument subquery is nonempty. |
| unique construct | whether a subquery has any duplicate tuples in its result. |
| with clause | provides a way of defining a temporary view whose definition is available only to the query in which the **with** clause occurs. |
| Scalar subquery | is one which is used where a single value is expected |
| Modification of the Database | * Deletion of tuples from a given relation * Insertion of new tuples into a given relation * Updating values in some tuples in a given relation |
| Deletion | Delete all instructors whose salary is less than the average salary of instructors |