Database Management Systems – Practical

Some Important SQL Commands

1. **SELECT** - extracts data from a database
2. **UPDATE** - updates data in a database
3. **DELETE** - deletes data from a database
4. **INSERT INTO** - inserts new data into a database
5. **CREATE DATABASE** - creates a new database
6. **ALTER DATABASE** - modifies a database
7. **CREATE TABLE** - creates a new table
8. **ALTER TABLE** - modifies a table
9. **DROP TABLE** - deletes a table
10. **CREATE INDEX** - creates an index (search key)
11. **DROP INDEX** - deletes an index

SELECT DISTINCT…

SELECT COUNT (DISTINCT)…

SELECT *column1*,*column2 ...*  
FROM *table\_name*  
WHERE *condition*; Can use AND, OR and NOT operators in Conditions

SELECT *column1*,*column2 ...*  
FROM *table\_name*  
ORDER BY *column1, column2 ...*ASC|DESC

*SELECT*column\_names *FROM*table\_name *WHERE*column\_name*IS NULL IS NOT NULL is also a command*

SELECT MIN (*column\_name*) MAX can also be used  
FROM *table\_name*  
WHERE *condition*;

COUNT (), AVG (), SUM ()

*SELECT \* FROM Customers % - The percent sign represents zero, one, or multiple characters  
WHERE CustomerName LIKE 'a%' \_ - The underscore represents a single character*

*SELECT \* FROM Customers  
WHERE Country IN ('Germany', 'France', 'UK');*

*WHERE*column\_name *BETWEEN*value1*AND*value2 Can use NOT BETWEEN

SELECT Orders.OrderID, Customers.CustomerName, Orders.OrderDate  
FROM Orders  
INNER JOIN Customers ON Orders.CustomerID=Customers.CustomerID;

* (INNER) JOIN: Returns records that have matching values in both tables
* LEFT (OUTER) JOIN: Returns all records from the left table, and the matched records from the right table
* RIGHT (OUTER) JOIN: Returns all records from the right table, and the matched records from the left table
* FULL (OUTER) JOIN: Returns all records when there is a match in either left or right table

SELECT *column\_name(s)* FROM *table1*  
UNION The UNION operator is used to combine the result-set of two or more SELECT statements.  
SELECT *column\_name(s)* FROM *table2*;

SELECT COUNT (CustomerID), Country  
FROM Customers  
GROUP BY Country;

PRIMARY KEY (OrderID),  
FOREIGN KEY (PersonID) REFERENCES Persons(PersonID)

CHECK (Age>=18)