**SQL Quick Reference**

**Terminologies**

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| Term | Meaning |
| SQL | Structured Query Language – used to communicate with database |
| Data | Known facts which is recorded with implicit meaning |
| Database | Collection of logically related data at one place. |
| Database management system | A record keeping system that is managed by computer |
| Relational Database management system | Database management system (DBMS) based on the relational model as invented by E. F. Codd |
| Relation | Table |
| Tuple | Row in a table |
| Attribute/Field | Column in a table |
| Degree | Number of attributes |
| Cardinality | Number of tuples |
| Primary Key | Unique identifier of the table |

**Commands**

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| Data Definition Language (DDL) | Create | Create objects in the database |
| Alter | Alters the structure of the database |
| Drop | Delete objects from the database |
| Truncate | Remove all records from a table, including all spaces allocated for the records are removed |
| Data Manipulation Language (DML) | Select | Retrieve data from the a database |
| Insert | Insert data into a table |
| Update | Updates existing data within a table |
| Delete | Deletes all records from a table, the space for the records remain |
| Data Control Language (DCL) | Grant | Gives users access privileges to database |
| Revoke | Withdraw access privileges given with the GRANT command |
| Transaction Control (TCL) | Commit | Save work done |
| Savepoint | Identify a point in a transaction to which you can later roll back |
| Rollback | Restore database to original since the last COMMIT |

**Clauses**

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| Where | Specify a condition while fetching the data from one or more tables |
| Like | Compare a value to similar values using wildcard operators (match character pattern) |
| Between..And | Compare data for a range of values (inclusive) |
| In | Compare a column with more than one value |
| Top | Fetch a TOP N number or X percent records from a table |
| Order By | Sort the data in ascending or descending order based on one or more columns |
| Group By | Used in collaboration with the SELECT statement to arrange identical data into groups |
| Having | Filter data based on the group functions |

**Operators/other functions**

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| **Operator** | **Meaning** |
| AND | Returns TRUE if both component conditions are true |
| OR | Returns TRUE if either component conditions are true |
| NOT | Returns TRUE if condition is false |
| Upper | Converts the value of the field to uppercase |
| Lower | Converts the value of the field to lowercase |
| Distinct | Extracts distinct values of the column(s) |
| Average | Returns average of records |
| Count | Returns count of records |
| Max | Returns max record value of specified column |
| Min | Returns min record value of specified column |
| Sum | Returns sum of the record value of specified column |
| Union | Combine the result-set of two or more SELECT statements |
| Union All | Same as Union, except that allows all duplicate values in the output set |
| Intersect | Returns only the common rows in both tables |
| Minus | Returns unique rows that are returned by the first query but are NOT returned by the second query |