# Knowledge Organiser: MongoDB

## Summary

MongoDB is an open source NoSQL database management program. NoSQL is used as an alternative to traditional relational databases. NoSQL databases are quite useful for working with large sets of distributed data. MongoDB is a tool that can manage document-oriented information, store or retrieve information.

## Commands

```
insert( )                    // insert document(s) returns write result
insertOne ( )                // insert one document
insertMany( )                // insert many documents
insertMany([{},{},{}])       // needs square brackets
db.collection.find()         //Display documents from collection
find()                       // find all matching documents
findOne()                    // find first matching document
updateOne()                  // Change one document
updateMany()                 // Change many documents
replaceOne()                 // Replace document entirely
deleteOne()                  // Delete one document
deleteMany()                 // Delete many documents
```

## Filters

**$eq** Matches values that are equal to a specified value.

**$gt** Matches values that are greater than a specified value.

**$gte** Matches values that are greater than or equal to a specified value.

**$in** Matches any of the values specified in an array syntax: {key:{$in: [array of values] } }

**$lt** Matches values that are less than a specified value.

**$lte** Matches values that are less than or equal to a specified value.

**$ne** Matches all values that are not equal to a specified value.

**$nin** Matches none of the values specified in an array.

**$and** Performs AND operation syntax: {$and: [ {},{} ] }

**{key: {$op: filter}, {filter}}** $and operator is necessary when the same field or operator has to be specified in multiple expressions

**find({doc.subdoc:value})** Filter sub documents