**MongoDB Cheat Sheet for Windows**

**Installation**

1. **Download MongoDB**:
   * Go to [MongoDB Download Center](https://www.mongodb.com/try/download/community)
   * Select **Windows** and download the MSI package.
2. **Install MongoDB**:
   * Run the installer and follow the instructions.
   * Choose **Complete** installation.
   * Ensure "Install MongoDB as a Service" is checked.
3. **Add MongoDB to System Path**:
   * Add C:\Program Files\MongoDB\Server\<version>\bin to the system PATH variable.

**Starting MongoDB**

1. **Run MongoDB Server**:
2. mongod --dbpath="C:\data\db"
   * Ensure the C:\data\db folder exists or specify another path.
3. **Run MongoDB Shell**:
4. mongosh

or (older versions)

mongo

**Basic Commands**

* **Check version**:
* mongod --version
* **Show databases**:
* show dbs
* **Use a database**:
* use database\_name
* **Show collections**:
* show collections
* **Insert a document**:
* db.collection\_name.insertOne({ name: "John", age: 30 })
* **Find all documents**:
* db.collection\_name.find()
* **Find with condition**:
* db.collection\_name.find({ age: { $gt: 25 } })
* **Update a document**:
* db.collection\_name.updateOne({ name: "John" }, { $set: { age: 35 } })
* **Delete a document**:
* db.collection\_name.deleteOne({ name: "John" })
* **Drop a collection**:
* db.collection\_name.drop()

**Indexing**

* **Create an index**:
* db.collection\_name.createIndex({ name: 1 })
* **List indexes**:
* db.collection\_name.getIndexes()

**Aggregation**

* **Simple aggregation**:
* db.collection\_name.aggregate([{ $group: { \_id: "$age", count: { $sum: 1 } } }])

**User Management**

* **Create a user**:
* db.createUser({ user: "admin", pwd: "password", roles: ["readWrite", "dbAdmin"] })
* **Show users**:
* show users
* **Authenticate user**:
* db.auth("admin", "password")

**Backup & Restore**

* **Backup a database**:
* mongodump --db database\_name --out "C:\backup"
* **Restore a database**:
* mongorestore --db database\_name "C:\backup\database\_name"

**Stop MongoDB Service**

* **Stop MongoDB server**:
* net stop MongoDB
* **Start MongoDB service**:
* net start MongoDB

This cheat sheet provides a quick reference for working with MongoDB on Windows. For advanced usage, refer to the [official documentation](https://www.mongodb.com/docs/).