Elasticsearch

Download and Install

First you need to download elasticsearch from elastic.co and install it. To install deb package

```
sudo dpkg -i elasticsearch-6.3.2.deb
```

By using this command Elasticsearch will be installed in /usr/share/elasticsearch and it's configuration files will be placed at /etc/elasticsearch and it's init scripts will be at /etc/init.d/elasticsearch.

Configuring Elasticsearch

By installing deb package default path for config files will be at /etc/elasticsearch. There you can find elasticsearch.yml which contains Elasticsearch server settings and logging.yml which contains logging configuration. You probably don't need to edit this and default directory for logs is /var/log/elasticsearch.
To join the cluster and start Elasticsearch you need to edit elasticsearch.yml. The first two variables you need to assign are node.name and cluster.name like

```
node.name: "master-node"
cluster.name: moama
```

Each cluster needs at least one master node. Master nodes are responsible for things like load balance and stability. Being a master node is determined by node.master value which is true by default. If you have more than one server in your cluster and want a server to be slave you can set this value to false.

```
master.node: false
```

Also a cluster needs some data servers to store data on them which are called data nodes. Again, by default the value for data.node is true and should not be changed

if this is the only server in the cluster, otherwise you can change it to false if you wish no data to be stored on this server (for example you want the server to be a dedicated master).

```
data.node: false
```

Next important configuration is number of shards and replicas. The number of shards is actually the number of pieces your index will be split into. And number of replicas determine how many copies you will have distributed in the cluster.
Important: Please notice that number of replicas starts from 0 which means no replicas of data will be saved in other servers.
Default value for number of shards is 5 and for number of replicas is 1 and you can change it this way

```
index.number_of_shards: 1
index.number_of_replicas: 0
```

One of the most important variables is path.data which shows where our data will be stored. Please note that the default value for this is /var/lib/elasticsearch which might not have enough space and it's generally a better idea if you change it with a folder you are sure has more space (like a folder in /home directory). Also notice the owner of the new folder you assign to path.data (which it probably must be elasticsearch but you can always check which user is running Elasticsearch from its elasticsearch.service file. You can find elasticsearch.service file's location using locate elasticsearch.service)
This is an example of how you can set a new path.data for Elasticsearch

```
path.data: /home/elasticsearch/data
```

You can start, stop or check the status of Elasticsearch using following commands

```
sudo service elasticsearch start
sudo service elasticsearch status
sudo service elasticsearch stop
```

For joining the cluster and finding other nodes you need to set network.host variable to server's ip address and in discovery.zen.ping.unicast.hosts you need to enter the list of other nodes in the cluster. Here's an example

```
network.host: 94.23.214.93
discovery.zen.ping.unicast.hosts: ["188.165.209.90"]
```

Elasticsearch APIs and docs

This page contains all Elasticsearch API docs. By default Elasticsearch is listening on port 9200.