

## **--> Instructions & Details <--**

### **> Programming Language:**

Python (v3.8.5)

### **> STEP 1: Create the Data File ("data/dataToIndex.txt")**

usage: **createData.py** [-h] [-k K] [-n N] [-d D] [-m M] [-l L]

optional arguments:

- h, --help show this help message and exit
- k K Key list textfile (default: "data/keyFile.txt")
- n N Number of lines (default: 10)
- d D Maximum level of nesting (default: 3)
- m M Maximum number of keys / each value (default: 4)
- l L Maximum length of string value (default: 9)

### **> STEP 2: Start the servers - Store Data - Run Queries**

usage: **kvBroker.py** [-h] [-s S] [-i I] [-k K]

optional arguments:

- h, --help show this help message and exit
- s S Server ip-port list (default: "data/serverFile.txt")
- i I Data to store (default: "data/dataToIndex.txt")
- k K Pick random k servers (default: 2)

### **> STEP 3: Run Queries**

Options:

1. **DELETE** <top\_level\_key>
2. **GET** <top\_level\_key>
3. **QUERY** <top\_level\_key(.nested\_key...nested\_key)>
4. **exit**

e.g.

```
GET tkey1
DELETE tkey2
QUERY tkey1.name.GPA
GET "tkey3"
DELETE 'tkey2'
```

### **> Notes**

The keys can be either in quotes(double/single) or not and the separators between the command and the key/keypath can be either a single or multiple spaces/tabs