

CRD Operations of a File based Key Value Data Store

Test: Unit Test

Case 1 : Importing Main File

1.1 Importing Main File as Library with File Name

```
In [1]: import main as x
```

Result: The File is Imported

1.2 Importing Main File as Library with Wrong File Name

```
In [8]: import prg as x
```

```
-----  
ModuleNotFoundError                                Traceback (most recent call last)  
<ipython-input-8-f0a8f6ca3469> in <module>  
----> 1 import prg as x  
  
ModuleNotFoundError: No module named 'prg'
```

Result: Returns Error

Case 2: Creating a Key with Value

2.1 Creating a Key with a Value

```
In [2]: x.create("A",10)
```

Result: The Key is Created with Value

2.2 Creating an Already Existing Key with a Value

```
In [4]: x.create("A",10)
```

error: this key already exists

Result: Returns Error Message

2.3 Creating an Invalid Key with a Value

```
In [15]: x.create("@123",50)
```

error: Invalid key_name!! key_name must contain only alphabets and no special characters or numbers

Result : Returns Error Message

2.4 Creating a Key Name with a Value and Tme to Live Value

```
In [16]: x.create("B",20,60)
```

Result : Key is Created with Value and Time to Live Value

Case :3 Reading a Key

3.1 Reading a Key Value

```
In [3]: x.read("A")  
Out[3]: 'A:10'
```

Result : Returns Value for Key

3.2 Reading a Key Value with Time to Live Value

```
In [17]: x.create("B",20,60)  
          x.read("B")  
Out[17]: 'B:20'
```

Result: Returns Value for Key

3.3 Reading a Key Value After Expired

```
In [18]: x.read("B")  
error: time-to-live of B has expired
```

Result : Returns Error Message

3.4 Reading the Deleted Key

```
In [21]: x.read("A")  
error: given key does not exist in database. Please enter a valid key
```

Result : Returns Error Message

Case 4 : Modifying the Value of Key

```
In [19]: x.modify("A",45)
          x.read("A")
```

```
Out[19]: 'A:45'
```

Result : The Key Value is Modified

Case 5 : Deleting the Key from Database

```
In [20]: x.delete("A")
```

```
key is successfully deleted
```

Result : The Key is Deleted