

## Sample Output

### 1.Implementation of CRD(Create-Read-Delete)

```
C:\Users\maddy\Desktop\DataStore>python
Python 3.9.1 (tags/v3.9.1:1e5d33e, Dec 7 2020, 17:08:21) [MSC v.1927 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license" for more information.
>>> from yads import yads
>>> data_store = yads()
Creating new file: C:\Users\maddy\Desktop\DataStore\datastore1609497466.txt
>>> import json
>>> ttl = 100
>>> value = json.dumps({"Madhu": "freshworks assignment"})
>>> key = "madhu"
>>> data_store.create(key, value, ttl)
key is created successfully
>>> data_store.read(key)
'{"Madhu": "freshworks assignment"}'
>>> data_store.delete(key)
key is deleted
>>>
```

### 2. Reading the existing key

```
C:\Users\maddy\Desktop\DataStore>python
Python 3.9.1 (tags/v3.9.1:1e5d33e, Dec 7 2020, 17:08:21) [MSC v.1927 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license" for more information.
>>> from yads import yads
>>> data_store = yads()
Creating new file: C:\Users\maddy\Desktop\DataStore\datastore1609494256.txt
>>> ttl = 100
>>> key = "madhu"
>>> value = "{}"
>>> data_store.create(key, value, ttl)
key is created successfully
>>> data_store.read(key)
'{}'
>>> exit()

C:\Users\maddy\Desktop\DataStore>python
Python 3.9.1 (tags/v3.9.1:1e5d33e, Dec 7 2020, 17:08:21) [MSC v.1927 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license" for more information.
>>> from yads import yads
>>> data_store = yads(r"C:\Users\maddy\Desktop\DataStore\datastore1609494256.txt")
>>> data_store.read("madhu")
'{}'
>>>
```

### 3. Key exists Exception - Entered the existing key name to create a new key

```
C:\Users\maddy\Desktop\DataStore>python
Python 3.9.1 (tags/v3.9.1:1e5d33e, Dec 7 2020, 17:08:21) [MSC v.1927 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license" for more information.
>>> from yads import yads
>>> data_store = yads()
Creating new file: C:\Users\maddy\Desktop\DataStore\datastore1609495128.txt
>>> key = "madhu"
>>> value = "{}"
>>> ttl=100
>>> data_store.create(key, value, ttl)
key is created successfully
>>> data_store.read(key)
'{'
>>> data_store.create(key, value, ttl)
Traceback (most recent call last):
  File "<stdin>", line 1, in <module>
  File "C:\Users\maddy\Desktop\DataStore\yads.py", line 131, in create
    self.check_key_value_format(key, value, time_to_live)
  File "C:\Users\maddy\Desktop\DataStore\yads.py", line 91, in check_key_value_format
    raise KeyExistsException
exceptions.KeyExistsException
>>>
```

### 4. Key doesn't exist Exception - Existing key is deleted and it cannot be read

```
C:\Users\maddy\Downloads\fworks>python
Python 3.9.1 (tags/v3.9.1:1e5d33e, Dec 7 2020, 17:08:21) [MSC v.1927 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license" for more information.
>>> from yads import yads
>>> data_store = yads()
Creating new file: C:\Users\maddy\Downloads\fworks\datastore1609484326.txt
>>> ttl = 100
>>> value = "{}"
>>> key = "madhu"
>>> data_store.create(key, value, ttl)
key is created successfully
>>> data_store.read(key)
'{'
>>> data_store.delete(key)
key is deleted
>>> data_store.read(key)
Traceback (most recent call last):
  File "<stdin>", line 1, in <module>
  File "C:\Users\maddy\Downloads\fworks\yads.py", line 157, in read
    raise KeyDoesNotExistException
exceptions.KeyDoesNotExistException
>>> data_store.delete(key)
Traceback (most recent call last):
  File "<stdin>", line 1, in <module>
  File "C:\Users\maddy\Downloads\fworks\yads.py", line 182, in delete
    raise KeyDoesNotExistException
exceptions.KeyDoesNotExistException
>>>
```

## 5. Value format Exception - Since the entered value is not in proper string format

```
>>> value = r"{'maddy' : 'freshworks assignment'}"
>>> ttl=100
>>> data_store.create(key, value, ttl)
Traceback (most recent call last):
  File "<stdin>", line 1, in <module>
  File "C:\Users\maddy\Desktop\DataStore\yads.py", line 131, in create
    self.check_key_value_format(key, value, time_to_live)
  File "C:\Users\maddy\Desktop\DataStore\yads.py", line 104, in check_key_value_format
    raise ValueError
exceptions.ValueFormatException
>>>
```

## 6. Key Expiration Exception - Since the key has expired it raises an exception

```
C:\Users\maddy\Desktop\DataStore>python
Python 3.9.1 (tags/v3.9.1:1e5d33e, Dec 7 2020, 17:08:21) [MSC v.1927 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license" for more information.
>>> import json
>>> from yads import yads
>>> data_store = yads()
Creating new file: C:\Users\maddy\Desktop\DataStore\datastore1609496192.txt
>>> key = "madhu"
>>> value = json.dumps({"Madhu": "freshworks assignment"})
>>> ttl = 100
>>> data_store.create(key, value, ttl)
key is created successfully
>>> data_store.read(key)
Traceback (most recent call last):
  File "<stdin>", line 1, in <module>
  File "C:\Users\maddy\Desktop\DataStore\yads.py", line 167, in read
    raise KeyExpiredException
exceptions.KeyExpiredException
```

## 7. Time to live format Exception - Since the value entered is not a valid integer

```
>>> key = "madhu"
>>> ttl = "1"
>>> value = "{}"
>>> data_store.create(key,value,ttl)
Traceback (most recent call last):
  File "<stdin>", line 1, in <module>
  File "C:\Users\maddy\Desktop\DataStore\yads.py", line 131, in create
    self.check_key_value_format(key, value, time_to_live)
  File "C:\Users\maddy\Desktop\DataStore\yads.py", line 111, in check_key_value_format
    raise TimeToLiveFormatException
exceptions.TimeToLiveFormatException
>>>
```

## Unit Test Output

CA. Command Prompt

```
C:\Users\maddy\Desktop\DataStore>python -m pytest
===== test session starts =====
platform win32 -- Python 3.9.1, pytest-6.2.1, py-1.10.0, pluggy-0.13.1
rootdir: C:\Users\maddy\Desktop\DataStore
collected 9 items

unit_tests\test_creation.py .
unit_tests\test_deletion.py .
unit_tests\test_key.py ...
unit_tests\test_read.py .
unit_tests\test_storage_persistence.py .
unit_tests\test_ttl.py .
unit_tests\test_value.py .

===== 9 passed in 0.59s =====
C:\Users\maddy\Desktop\DataStore>
```