DOCUMENTATION

frun.py

```
NAME
  frun
FUNCTIONS
  frint()
       Function for printing out the tuples in result set.
DATA
  lines = []
  resultset=[]
ish.py
NAME
  lsh
FUNCTIONS
  setGenerator()
        Here a set is created from the data after it undergoing shingling, vectorizing and performing
       lsh.
DATA
  lines = []
  hashmap
  arr = []
  similarity Matrix
  commonset = set()
  similarityMatrix = []
  hashtable = {}
```

```
minimumHashing.py
NAME
  minimumHashing
FUNCTIONS
  minHashing(arr)
       This function reduces the dimensions of a matrix to form a similarity matrix having the same
       properties as of previous one.
  shuffle(size)
       shuffle is used to generate a random shuffling of an array of elements 0 to size-1.
  shuffleList(hashedList)
       shuffleList is used to generate a random shuffling of an array of elements 0 to size-1 but the
       input is different than the other function
DATA
hashedList = {}
signatureMatrix = []
hashMatrix = []
```

shingling.py

```
NAME
```

shingling

FUNCTIONS

```
createShingles(doc, k)
```

Creates a dictionary with key as the dna string and the set of shingles as the paired value.

DATA

```
lines = []
hashmap = {}
```

```
shingles = set()
```

vectorize.py

NAME

vectorize

FUNCTIONS

jaccardSimilarity(vec1, vec2)

Creates a numpy array with shingles as rows and documents as columns, the array has 0 or 1 value based on whether the shingle is present in document or not.

DATA

```
mainSet = set()
shinglesDictionary = {}
```

Dataset.txt