

Outputs

Task1:

Query 1:

```
(phase3env) (base) mansi@ubuntu-pc:~/Desktop/MWDB_Phase3_Group10-20191204T043657Z-001/MWDB_Phase3_Group10/Code$ python task1.py -k 30 -lf "/home/mansi/Documents/sem1/MWDB/phase/phase3/phase3_sample_data/Labelled/Set1/" -uf "/home/mansi/Documents/sem1/MWDB/phase/phase3/phase3_sample_data/Unlabelled/Set1/" -lm "/home/mansi/Documents/sem1/MWDB/phase/phase3/phase3_sample_data/labelled_set1.csv" -l 1 -u 1
/home/mansi/Desktop/MWDB_Phase3_Group10-20191204T043657Z-001/MWDB_Phase3_Group10/Code/phase3env/lib/python3.7/site-packages/skimage/transform/_warps.py:23: UserWarning: The default multichannel argument (None) is deprecated. Please specify either True or False explicitly. multichannel will default to False starting with release 0.16.
  warn('The default multichannel argument (None) is deprecated. Please '
['Hand_0000950.jpg', 'palmar']
['Hand_0006646.jpg', 'dorsal']
['Hand_0007916.jpg', 'palmar']
['Hand_0007885.jpg', 'dorsal']
['Hand_0007908.jpg', 'dorsal']
['Hand_0007910.jpg', 'dorsal']
['Hand_0000951.jpg', 'palmar']
['Hand_0000941.jpg', 'dorsal']
['Hand_0007797.jpg', 'palmar']
```

Execution time: 42 seconds

Query2:

```
python task1.py -k 30 -lf
```

```
"/home/mansi/Documents/sem1/MWDB/phase/phase3/phase3_sample_data/Labelled/Set1/" -uf
```

```
"/home/mansi/Documents/sem1/MWDB/phase/phase3/phase3_sample_data/Unlabelled/Set 2/"
```

```
-lm
```

```
"/home/mansi/Documents/sem1/MWDB/phase/phase3/phase3_sample_data/labelled_set1.csv"
```

```
-l 1 -u 2
```

```
(phase3env) (base) mansi@ubuntu-pc:~/Desktop/MWDB_Phase3_Group10-20191204T043657Z-001/MWDB_Phase3_Group10/Code$ python task1.py -k 30 -lf "/home/mansi/Documents/sem1/MWDB/phase/phase3/phase3_sample_data/Labelled/Set1/" -uf "/home/mansi/Documents/sem1/MWDB/phase/phase3/phase3_sample_data/Unlabelled/Set2/" -lm "/home/mansi/Documents/sem1/MWDB/phase/phase3/phase3_sample_data/labelled_set1.csv" -l 1 -u 2
/home/mansi/Desktop/MWDB_Phase3_Group10-20191204T043657Z-001/MWDB_Phase3_Group10/Code/phase3env/lib/python3.7/site-packages/skimage/transform/_warps.py:23: UserWarning: The default multichannel argument (None) is deprecated. Please specify either True or False explicitly. multichannel will default to False starting with release 0.16.
  warn('The default multichannel argument (None) is deprecated. Please '
['Hand_0000075.jpg', 'dorsal']
['Hand_0002184.jpg', 'palmar']
['Hand_0008628.jpg', 'dorsal']
['Hand_0010471.jpg', 'dorsal']
['Hand_0000658.jpg', 'dorsal']
['Hand_0004572.jpg', 'dorsal']
['Hand_0004632.jpg', 'palmar']
['Hand_0009377.jpg', 'palmar']
['Hand_0009654.jpg', 'palmar']
['Hand_0009653.jpg', 'palmar']
['Hand_0004631.jpg', 'palmar']
```

Execution: 62 seconds

Query 3:

```
python task1.py -k 30 -lf
```

```
"/home/mansi/Documents/sem1/MWDB/phase/phase3/phase3_sample_data/Labelled/Set2/" -uf
```

```
"/home/mansi/Documents/sem1/MWDB/phase/phase3/phase3_sample_data/Unlabelled/Set 1/"
```

```
-lm
```

```
"/home/mansi/Documents/sem1/MWDB/phase/phase3/phase3_sample_data/labelled_set2.csv"
```

```
-l 2 -u 1
```

```
(phase3env) (base) mansi@ubuntu-pc:~/Desktop/MWDB_Phase3_Group10-20191204T043657Z-001/MWDB_Phase3_Group10/Code$ python task1.py -k 30 -lf "/home/mansi/Documents/sem1/MWDB/phase/phase3/phase3_sample_data/Labelled/Set2/" -uf "/home/mansi/Documents/sem1/MWDB/phase/phase3/phase3_sample_data/Unlabelled/Set 1/" -lm "/home/mansi/Documents/sem1/MWDB/phase/phase3/phase3_sample_data/labelled_set2.csv" -l 2 -u 1
/home/mansi/Desktop/MWDB_Phase3_Group10-20191204T043657Z-001/MWDB_Phase3_Group10/Code/phase3env/lib/python3.7/site-packages/skimage/transform/_warps.py:23: UserWarning: The default multichannel argument (None) is deprecated. Please specify either True or False explicitly. multichannel will default to False starting with release 0.16.
  warn('The default multichannel argument (None) is deprecated. Please '
['Hand_0000950.jpg', 'palmar']
['Hand_0006646.jpg', 'palmar']
['Hand_0007916.jpg', 'dorsal']
['Hand_0007885.jpg', 'palmar']
['Hand_0007908.jpg', 'palmar']
['Hand_0007910.jpg', 'palmar']
['Hand_0000951.jpg', 'palmar']
['Hand_0000941.jpg', 'dorsal']
```

Execution time:67sec

Query4:

python task1.py -k 30 -lf

"/home/mansi/Documents/sem1/MWDB/phase/phase3/phase3_sample_data/Labelled/Set2/" -uf

"/home/mansi/Documents/sem1/MWDB/phase/phase3/phase3_sample_data/Unlabelled/Set 2/"

-lm

"/home/mansi/Documents/sem1/MWDB/phase/phase3/phase3_sample_data/labelled_set2.csv"

-l 2 -u 2

```
(phase3env) (base) mansi@ubuntu-pc:~/Desktop/MWDB_Phase3_Group10-20191204T043657Z-001/MWDB_Phase3_Group10/Code$ python task1.py -k 30 -lf "/home/mansi/Documents/sem1/MWDB/phase/phase3/phase3_sample_data/Labelled/Set2/" -uf "/home/mansi/Documents/sem1/MWDB/phase/phase3/phase3_sample_data/Unlabelled/Set 2/" -lm "/home/mansi/Documents/sem1/MWDB/phase/phase3/phase3_sample_data/labelled_set2.csv" -l 2 -u 2
/home/mansi/Desktop/MWDB_Phase3_Group10-20191204T043657Z-001/MWDB_Phase3_Group10/Code/phase3env/lib/python3.7/site-packages/skimage/transform/_warps.py:23: UserWarning: The default multichannel argument (None) is deprecated. Please specify either True or False explicitly. multichannel will default to False starting with release 0.16.
  warn('The default multichannel argument (None) is deprecated. Please '
['Hand_0000075.jpg', 'palmar']
['Hand_0002184.jpg', 'palmar']
['Hand_0008628.jpg', 'palmar']
['Hand_0010471.jpg', 'dorsal']
['Hand_0000658.jpg', 'dorsal']
['Hand_0004572.jpg', 'dorsal']
['Hand_0004632.jpg', 'dorsal']
['Hand_0009377.jpg', 'palmar']
['Hand_0009654.jpg', 'dorsal']
['Hand_0009653.jpg', 'dorsal']
```

Execution time: 44sec

Task2:

Query1:

Input:

c : 5, Folder : Labelled / Set 2, Classify : Unlabelled/Set 1

command: python task2_kmeans.py -c 5 -lf

"/home/mansi/Documents/sem1/MWDB/phase/phase3/phase3_sample_data/Labelled/Set2/" -uf

"/home/mansi/Documents/sem1/MWDB/phase/phase3/phase3_sample_data/Unlabelled/Set 1/"

-lm

"/home/mansi/Documents/sem1/MWDB/phase/phase3/phase3_sample_data/labelled_set2.csv"

-l 2 -u 1

Output:

['Hand_0000674.jpg', 'dorsal']

['Hand_0000675.jpg', 'dorsal']
['Hand_0000676.jpg', 'dorsal']
['Hand_0000677.jpg', 'dorsal']
['Hand_0000678.jpg', 'dorsal']
['Hand_0000679.jpg', 'dorsal']
['Hand_0000680.jpg', 'dorsal']
['Hand_0000681.jpg', 'dorsal']
['Hand_0000941.jpg', 'dorsal']
['Hand_0000942.jpg', 'dorsal']
['Hand_0000950.jpg', 'dorsal']
['Hand_0000951.jpg', 'palmar']
['Hand_0000952.jpg', 'dorsal']
['Hand_0000953.jpg', 'dorsal']
['Hand_0000954.jpg', 'dorsal']
['Hand_0000955.jpg', 'dorsal']
['Hand_0000956.jpg', 'dorsal']
['Hand_0000957.jpg', 'dorsal']
['Hand_0000958.jpg', 'dorsal']
['Hand_0000959.jpg', 'dorsal']
['Hand_0000970.jpg', 'dorsal']
['Hand_0000971.jpg', 'dorsal']
['Hand_0000972.jpg', 'dorsal']
['Hand_0000973.jpg', 'dorsal']
['Hand_0000989.jpg', 'dorsal']
['Hand_0000993.jpg', 'dorsal']
['Hand_0000994.jpg', 'dorsal']
['Hand_0000995.jpg', 'dorsal']
['Hand_0000996.jpg', 'dorsal']
['Hand_0000997.jpg', 'dorsal']
['Hand_0000998.jpg', 'dorsal']
['Hand_0000999.jpg', 'dorsal']
['Hand_0006637.jpg', 'dorsal']
['Hand_0006638.jpg', 'palmar']
['Hand_0006639.jpg', 'palmar']
['Hand_0006640.jpg', 'palmar']
['Hand_0006641.jpg', 'palmar']
['Hand_0006642.jpg', 'palmar']
['Hand_0006643.jpg', 'palmar']
['Hand_0006644.jpg', 'dorsal']
['Hand_0006645.jpg', 'dorsal']
['Hand_0006646.jpg', 'dorsal']
['Hand_0006647.jpg', 'dorsal']
['Hand_0006648.jpg', 'dorsal']

['Hand_0006649.jpg', 'dorsal']
['Hand_0006650.jpg', 'dorsal']
['Hand_0006651.jpg', 'dorsal']
['Hand_0007734.jpg', 'dorsal']
['Hand_0007735.jpg', 'dorsal']
['Hand_0007736.jpg', 'dorsal']
['Hand_0007779.jpg', 'palmar']
['Hand_0007780.jpg', 'palmar']
['Hand_0007781.jpg', 'palmar']
['Hand_0007782.jpg', 'palmar']
['Hand_0007783.jpg', 'palmar']
['Hand_0007784.jpg', 'palmar']
['Hand_0007785.jpg', 'palmar']
['Hand_0007786.jpg', 'palmar']
['Hand_0007787.jpg', 'palmar']
['Hand_0007788.jpg', 'palmar']
['Hand_0007789.jpg', 'dorsal']
['Hand_0007790.jpg', 'dorsal']
['Hand_0007791.jpg', 'dorsal']
['Hand_0007792.jpg', 'dorsal']
['Hand_0007793.jpg', 'dorsal']
['Hand_0007794.jpg', 'dorsal']
['Hand_0007795.jpg', 'palmar']
['Hand_0007796.jpg', 'palmar']
['Hand_0007797.jpg', 'palmar']
['Hand_0007798.jpg', 'palmar']
['Hand_0007799.jpg', 'palmar']
['Hand_0007877.jpg', 'palmar']
['Hand_0007878.jpg', 'palmar']
['Hand_0007879.jpg', 'palmar']
['Hand_0007880.jpg', 'palmar']
['Hand_0007881.jpg', 'palmar']
['Hand_0007882.jpg', 'palmar']
['Hand_0007883.jpg', 'palmar']
['Hand_0007884.jpg', 'palmar']
['Hand_0007885.jpg', 'palmar']
['Hand_0007886.jpg', 'palmar']
['Hand_0007887.jpg', 'palmar']
['Hand_0007888.jpg', 'palmar']
['Hand_0007900.jpg', 'dorsal']
['Hand_0007901.jpg', 'dorsal']
['Hand_0007902.jpg', 'dorsal']
['Hand_0007903.jpg', 'dorsal']

```
['Hand_0007904.jpg', 'dorsal']
['Hand_0007905.jpg', 'dorsal']
['Hand_0007906.jpg', 'palmar']
['Hand_0007907.jpg', 'palmar']
['Hand_0007908.jpg', 'palmar']
['Hand_0007909.jpg', 'dorsal']
['Hand_0007910.jpg', 'dorsal']
['Hand_0007911.jpg', 'dorsal']
['Hand_0007912.jpg', 'dorsal']
['Hand_0007913.jpg', 'dorsal']
['Hand_0007914.jpg', 'dorsal']
['Hand_0007915.jpg', 'dorsal']
['Hand_0007916.jpg', 'dorsal']
```

Accuracy:

We are getting 70% accuracy in this query.

Execution : 48sec

Query 2:

Input:

c : 10, Folder : Labelled / Set 2, Classify : Unlabelled/Set 1

Command:python task2_kmeans.py -c 10 -lf

"/home/mansi/Documents/sem1/MWDB/phase/phase3/phase3_sample_data/Labelled/Set2/" -uf

"/home/mansi/Documents/sem1/MWDB/phase/phase3/phase3_sample_data/Unlabelled/Set 1/"

-lm

"/home/mansi/Documents/sem1/MWDB/phase/phase3/phase3_sample_data/labelled_set2.csv"

-l 2 -u 1

output:

```
['Hand_0000674.jpg', 'dorsal']
['Hand_0000675.jpg', 'dorsal']
['Hand_0000676.jpg', 'dorsal']
['Hand_0000677.jpg', 'dorsal']
['Hand_0000678.jpg', 'dorsal']
['Hand_0000679.jpg', 'dorsal']
['Hand_0000680.jpg', 'dorsal']
['Hand_0000681.jpg', 'dorsal']
['Hand_0000941.jpg', 'dorsal']
['Hand_0000942.jpg', 'dorsal']
['Hand_0000950.jpg', 'dorsal']
['Hand_0000951.jpg', 'dorsal']
['Hand_0000952.jpg', 'dorsal']
```

['Hand_0000953.jpg', 'dorsal']
['Hand_0000954.jpg', 'dorsal']
['Hand_0000955.jpg', 'dorsal']
['Hand_0000956.jpg', 'dorsal']
['Hand_0000957.jpg', 'dorsal']
['Hand_0000958.jpg', 'dorsal']
['Hand_0000959.jpg', 'dorsal']
['Hand_0000970.jpg', 'dorsal']
['Hand_0000971.jpg', 'dorsal']
['Hand_0000972.jpg', 'dorsal']
['Hand_0000973.jpg', 'dorsal']
['Hand_0000989.jpg', 'dorsal']
['Hand_0000993.jpg', 'dorsal']
['Hand_0000994.jpg', 'dorsal']
['Hand_0000995.jpg', 'dorsal']
['Hand_0000996.jpg', 'dorsal']
['Hand_0000997.jpg', 'dorsal']
['Hand_0000998.jpg', 'dorsal']
['Hand_0000999.jpg', 'dorsal']
['Hand_0006637.jpg', 'dorsal']
['Hand_0006638.jpg', 'dorsal']
['Hand_0006639.jpg', 'dorsal']
['Hand_0006640.jpg', 'dorsal']
['Hand_0006641.jpg', 'dorsal']
['Hand_0006642.jpg', 'dorsal']
['Hand_0006643.jpg', 'dorsal']
['Hand_0006644.jpg', 'dorsal']
['Hand_0006645.jpg', 'dorsal']
['Hand_0006646.jpg', 'dorsal']
['Hand_0006647.jpg', 'dorsal']
['Hand_0006648.jpg', 'dorsal']
['Hand_0006649.jpg', 'dorsal']
['Hand_0006650.jpg', 'dorsal']
['Hand_0006651.jpg', 'dorsal']
['Hand_0007734.jpg', 'dorsal']
['Hand_0007735.jpg', 'dorsal']
['Hand_0007736.jpg', 'dorsal']
['Hand_0007779.jpg', 'dorsal']
['Hand_0007780.jpg', 'dorsal']
['Hand_0007781.jpg', 'dorsal']
['Hand_0007782.jpg', 'dorsal']
['Hand_0007783.jpg', 'dorsal']
['Hand_0007784.jpg', 'dorsal']

['Hand_0007785.jpg', 'dorsal']
['Hand_0007786.jpg', 'dorsal']
['Hand_0007787.jpg', 'dorsal']
['Hand_0007788.jpg', 'dorsal']
['Hand_0007789.jpg', 'dorsal']
['Hand_0007790.jpg', 'dorsal']
['Hand_0007791.jpg', 'dorsal']
['Hand_0007792.jpg', 'dorsal']
['Hand_0007793.jpg', 'dorsal']
['Hand_0007794.jpg', 'dorsal']
['Hand_0007795.jpg', 'dorsal']
['Hand_0007796.jpg', 'dorsal']
['Hand_0007797.jpg', 'dorsal']
['Hand_0007798.jpg', 'dorsal']
['Hand_0007799.jpg', 'dorsal']
['Hand_0007877.jpg', 'palmar']
['Hand_0007878.jpg', 'palmar']
['Hand_0007879.jpg', 'dorsal']
['Hand_0007880.jpg', 'palmar']
['Hand_0007881.jpg', 'palmar']
['Hand_0007882.jpg', 'palmar']
['Hand_0007883.jpg', 'palmar']
['Hand_0007884.jpg', 'palmar']
['Hand_0007885.jpg', 'palmar']
['Hand_0007886.jpg', 'palmar']
['Hand_0007887.jpg', 'palmar']
['Hand_0007888.jpg', 'dorsal']
['Hand_0007900.jpg', 'dorsal']
['Hand_0007901.jpg', 'dorsal']
['Hand_0007902.jpg', 'dorsal']
['Hand_0007903.jpg', 'dorsal']
['Hand_0007904.jpg', 'dorsal']
['Hand_0007905.jpg', 'dorsal']
['Hand_0007906.jpg', 'dorsal']
['Hand_0007907.jpg', 'dorsal']
['Hand_0007908.jpg', 'dorsal']
['Hand_0007909.jpg', 'dorsal']
['Hand_0007910.jpg', 'dorsal']
['Hand_0007911.jpg', 'dorsal']
['Hand_0007912.jpg', 'dorsal']
['Hand_0007913.jpg', 'dorsal']
['Hand_0007914.jpg', 'dorsal']
['Hand_0007915.jpg', 'dorsal']

['Hand_0007916.jpg', 'dorsal']

Accuracy:

We are getting 60% accuracy in this query.

Execution : 70sec

Query 3:

Input:

c : 5, Folder : Labelled / Set 2, Classify : Unlabelled/Set 1

Command: python task2_kmeans.py -c 5 -lf

"/home/mansi/Documents/sem1/MWDB/phase/phase3/phase3_sample_data/Labelled/Set2/" -uf

"/home/mansi/Documents/sem1/MWDB/phase/phase3/phase3_sample_data/Unlabelled/Set 1/"

-lm

"/home/mansi/Documents/sem1/MWDB/phase/phase3/phase3_sample_data/labelled_set2.csv"

-l 2 -u 1

Output:

['Hand_0000070.jpg', 'dorsal']

['Hand_0000075.jpg', 'dorsal']

['Hand_0000094.jpg', 'palmar']

['Hand_0000095.jpg', 'palmar']

['Hand_0000101.jpg', 'palmar']

['Hand_0000102.jpg', 'palmar']

['Hand_0000109.jpg', 'dorsal']

['Hand_0000111.jpg', 'dorsal']

['Hand_0000112.jpg', 'dorsal']

['Hand_0000144.jpg', 'palmar']

['Hand_0000145.jpg', 'palmar']

['Hand_0000203.jpg', 'dorsal']

['Hand_0000204.jpg', 'dorsal']

['Hand_0000205.jpg', 'dorsal']

['Hand_0000386.jpg', 'dorsal']

['Hand_0000387.jpg', 'dorsal']

['Hand_0000403.jpg', 'dorsal']

['Hand_0000404.jpg', 'dorsal']

['Hand_0000422.jpg', 'palmar']

['Hand_0000423.jpg', 'palmar']

['Hand_0000648.jpg', 'dorsal']

['Hand_0000650.jpg', 'dorsal']

['Hand_0000658.jpg', 'dorsal']

['Hand_0000659.jpg', 'palmar']

['Hand_0000774.jpg', 'dorsal']

['Hand_0000776.jpg', 'dorsal']

['Hand_0000902.jpg', 'dorsal']
['Hand_0000903.jpg', 'dorsal']
['Hand_0000915.jpg', 'palmar']
['Hand_0001320.jpg', 'dorsal']
['Hand_0001321.jpg', 'dorsal']
['Hand_0001828.jpg', 'palmar']
['Hand_0001829.jpg', 'palmar']
['Hand_0001930.jpg', 'palmar']
['Hand_0001931.jpg', 'palmar']
['Hand_0001943.jpg', 'palmar']
['Hand_0001944.jpg', 'palmar']
['Hand_0002182.jpg', 'dorsal']
['Hand_0002183.jpg', 'dorsal']
['Hand_0002184.jpg', 'dorsal']
['Hand_0002212.jpg', 'dorsal']
['Hand_0002213.jpg', 'dorsal']
['Hand_0002214.jpg', 'dorsal']
['Hand_0002719.jpg', 'palmar']
['Hand_0002720.jpg', 'palmar']
['Hand_0003137.jpg', 'dorsal']
['Hand_0003138.jpg', 'dorsal']
['Hand_0003388.jpg', 'palmar']
['Hand_0003389.jpg', 'palmar']
['Hand_0003555.jpg', 'dorsal']
['Hand_0003556.jpg', 'dorsal']
['Hand_0003558.jpg', 'dorsal']
['Hand_0004026.jpg', 'dorsal']
['Hand_0004245.jpg', 'palmar']
['Hand_0004572.jpg', 'palmar']
['Hand_0004631.jpg', 'dorsal']
['Hand_0004632.jpg', 'dorsal']
['Hand_0004680.jpg', 'dorsal']
['Hand_0004681.jpg', 'dorsal']
['Hand_0004945.jpg', 'palmar']
['Hand_0004946.jpg', 'palmar']
['Hand_0005162.jpg', 'dorsal']
['Hand_0005163.jpg', 'dorsal']
['Hand_0005562.jpg', 'dorsal']
['Hand_0005578.jpg', 'palmar']
['Hand_0005579.jpg', 'palmar']
['Hand_0005984.jpg', 'dorsal']
['Hand_0005985.jpg', 'dorsal']
['Hand_0005986.jpg', 'dorsal']

['Hand_0006004.jpg', 'dorsal']
['Hand_0006005.jpg', 'dorsal']
['Hand_0006401.jpg', 'dorsal']
['Hand_0006575.jpg', 'dorsal']
['Hand_0006863.jpg', 'dorsal']
['Hand_0006864.jpg', 'dorsal']
['Hand_0007166.jpg', 'dorsal']
['Hand_0007168.jpg', 'dorsal']
['Hand_0008014.jpg', 'dorsal']
['Hand_0008016.jpg', 'dorsal']
['Hand_0008017.jpg', 'dorsal']
['Hand_0008622.jpg', 'palmar']
['Hand_0008628.jpg', 'palmar']
['Hand_0008885.jpg', 'palmar']
['Hand_0008886.jpg', 'palmar']
['Hand_0009376.jpg', 'dorsal']
['Hand_0009377.jpg', 'dorsal']
['Hand_0009378.jpg', 'dorsal']
['Hand_0009653.jpg', 'dorsal']
['Hand_0009654.jpg', 'dorsal']
['Hand_0009657.jpg', 'dorsal']
['Hand_0009686.jpg', 'dorsal']
['Hand_0009687.jpg', 'dorsal']
['Hand_0009791.jpg', 'palmar']
['Hand_0009810.jpg', 'palmar']
['Hand_0010471.jpg', 'dorsal']
['Hand_0010474.jpg', 'palmar']
['Hand_0010833.jpg', 'palmar']
['Hand_0010834.jpg', 'palmar']
['Hand_0011455.jpg', 'palmar']
['Hand_0011726.jpg', 'dorsal']

Accuracy:

We are getting 76% accuracy in this query.

Execution Time :82sec

Query 4:

Input:

c : 10, Folder : Labelled / Set 2, Classify : Unlabelled/Set 2

command:

python task2_kmeans.py -c 10 -lf

"/home/mansi/Documents/sem1/MWDB/phase/phase3/phase3_sample_data/Labelled/Set2/" -uf

"/home/mansi/Documents/sem1/MWDB/phase/phase3/phase3_sample_data/Unlabelled/Set 2/"

-lm

"/home/mansi/Documents/sem1/MWDB/phase/phase3/phase3_sample_data/labelled_set2.csv"

-l 2 -u 2

Output:

['Hand_0000070.jpg', 'dorsal']
['Hand_0000075.jpg', 'dorsal']
['Hand_0000094.jpg', 'dorsal']
['Hand_0000095.jpg', 'dorsal']
['Hand_0000101.jpg', 'palmar']
['Hand_0000102.jpg', 'palmar']
['Hand_0000109.jpg', 'dorsal']
['Hand_0000111.jpg', 'dorsal']
['Hand_0000112.jpg', 'dorsal']
['Hand_0000144.jpg', 'palmar']
['Hand_0000145.jpg', 'dorsal']
['Hand_0000203.jpg', 'dorsal']
['Hand_0000204.jpg', 'dorsal']
['Hand_0000205.jpg', 'dorsal']
['Hand_0000386.jpg', 'dorsal']
['Hand_0000387.jpg', 'dorsal']
['Hand_0000403.jpg', 'dorsal']
['Hand_0000404.jpg', 'dorsal']
['Hand_0000422.jpg', 'palmar']
['Hand_0000423.jpg', 'palmar']
['Hand_0000648.jpg', 'dorsal']
['Hand_0000650.jpg', 'dorsal']
['Hand_0000658.jpg', 'dorsal']
['Hand_0000659.jpg', 'dorsal']
['Hand_0000774.jpg', 'dorsal']
['Hand_0000776.jpg', 'dorsal']
['Hand_0000902.jpg', 'dorsal']
['Hand_0000903.jpg', 'dorsal']
['Hand_0000915.jpg', 'dorsal']
['Hand_0001320.jpg', 'dorsal']
['Hand_0001321.jpg', 'dorsal']
['Hand_0001828.jpg', 'palmar']
['Hand_0001829.jpg', 'palmar']
['Hand_0001930.jpg', 'palmar']
['Hand_0001931.jpg', 'palmar']
['Hand_0001943.jpg', 'palmar']
['Hand_0001944.jpg', 'palmar']

['Hand_0002182.jpg', 'dorsal']
['Hand_0002183.jpg', 'dorsal']
['Hand_0002184.jpg', 'dorsal']
['Hand_0002212.jpg', 'dorsal']
['Hand_0002213.jpg', 'dorsal']
['Hand_0002214.jpg', 'dorsal']
['Hand_0002719.jpg', 'palmar']
['Hand_0002720.jpg', 'palmar']
['Hand_0003137.jpg', 'dorsal']
['Hand_0003138.jpg', 'dorsal']
['Hand_0003388.jpg', 'palmar']
['Hand_0003389.jpg', 'palmar']
['Hand_0003555.jpg', 'dorsal']
['Hand_0003556.jpg', 'dorsal']
['Hand_0003558.jpg', 'dorsal']
['Hand_0004026.jpg', 'dorsal']
['Hand_0004245.jpg', 'palmar']
['Hand_0004572.jpg', 'palmar']
['Hand_0004631.jpg', 'dorsal']
['Hand_0004632.jpg', 'dorsal']
['Hand_0004680.jpg', 'dorsal']
['Hand_0004681.jpg', 'dorsal']
['Hand_0004945.jpg', 'dorsal']
['Hand_0004946.jpg', 'dorsal']
['Hand_0005162.jpg', 'dorsal']
['Hand_0005163.jpg', 'dorsal']
['Hand_0005562.jpg', 'dorsal']
['Hand_0005578.jpg', 'palmar']
['Hand_0005579.jpg', 'palmar']
['Hand_0005984.jpg', 'dorsal']
['Hand_0005985.jpg', 'dorsal']
['Hand_0005986.jpg', 'dorsal']
['Hand_0006004.jpg', 'dorsal']
['Hand_0006005.jpg', 'dorsal']
['Hand_0006401.jpg', 'dorsal']
['Hand_0006575.jpg', 'dorsal']
['Hand_0006863.jpg', 'dorsal']
['Hand_0006864.jpg', 'dorsal']
['Hand_0007166.jpg', 'dorsal']
['Hand_0007168.jpg', 'dorsal']
['Hand_0008014.jpg', 'dorsal']
['Hand_0008016.jpg', 'dorsal']
['Hand_0008017.jpg', 'dorsal']

['Hand_0008622.jpg', 'dorsal']
['Hand_0008628.jpg', 'dorsal']
['Hand_0008885.jpg', 'dorsal']
['Hand_0008886.jpg', 'dorsal']
['Hand_0009376.jpg', 'dorsal']
['Hand_0009377.jpg', 'dorsal']
['Hand_0009378.jpg', 'dorsal']
['Hand_0009653.jpg', 'dorsal']
['Hand_0009654.jpg', 'dorsal']
['Hand_0009657.jpg', 'dorsal']
['Hand_0009686.jpg', 'dorsal']
['Hand_0009687.jpg', 'dorsal']
['Hand_0009791.jpg', 'palmar']
['Hand_0009810.jpg', 'palmar']
['Hand_0010471.jpg', 'dorsal']
['Hand_0010474.jpg', 'dorsal']
['Hand_0010833.jpg', 'dorsal']
['Hand_0010834.jpg', 'dorsal']
['Hand_0011455.jpg', 'palmar']
['Hand_0011726.jpg', 'dorsal']

Accuracy:

We are getting 70% accuracy in this query.

Execution Time :57secs

TASK 3:

Query 1:

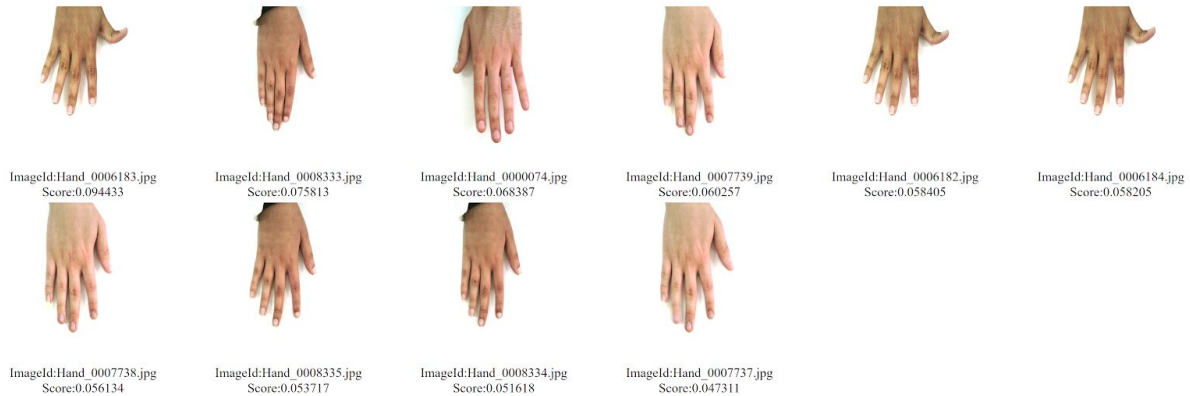
python task3.py -k 5 -K 10 -f

"/home/mansi/Documents/sem1/MWDB/phase/phase3/phase3_sample_data/Labelled/Set2/" -q

"Hand_0008333.jpg,Hand_0006183.jpg,Hand_0000074.jpg"

Output for Task 3

Top 10 similar Images



Execution time: 5.01 sec

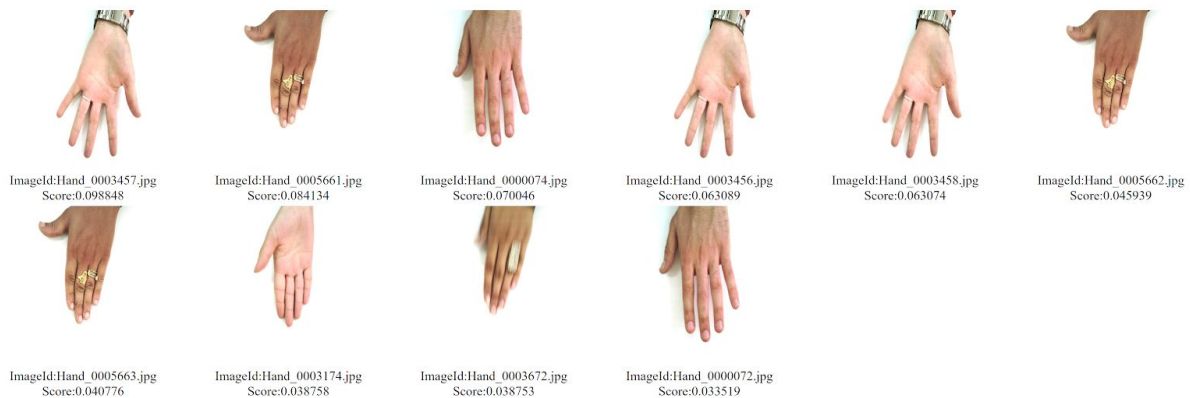
Query 2:

```
python task3.py -k 5 -K 10 -f
```

```
"/home/mansi/Documents/sem1/MWDB/phase/phase3/phase3_sample_data/Labelled/Set2/" -q  
"Hand_0003457.jpg,Hand_0000074.jpg,Hand_0005661.jpg"
```

Output for Task 3

Top 10 similar Images



Execution time: 5.06 sec

Task 4:

Query 1:

```
python task4.py -c svm -lf
```

```
"/home/mansi/Documents/sem1/MWDB/phase/phase3/phase3_sample_data/Labelled/Set2/" -uf
```

```
"/home/mansi/Documents/sem1/MWDB/phase/phase3/phase3_sample_data/Unlabelled/Set 2/"
-lm
"/home/mansi/Documents/sem1/MWDB/phase/phase3/phase3_sample_data/labelled_set2.csv"
-l 2 -u 2
```

Execution time: 147 sec (computing HOG)

Query 2:

```
python task4.py -c dcsn -lf
"/home/mansi/Documents/sem1/MWDB/phase/phase3/phase3_sample_data/Labelled/Set2/" -uf
"/home/mansi/Documents/sem1/MWDB/phase/phase3/phase3_sample_data/Unlabelled/Set 2/"
-lm
"/home/mansi/Documents/sem1/MWDB/phase/phase3/phase3_sample_data/labelled_set2.csv"
-l 2 -u 2
```

Execution time:88 sec

Query 3:

```
python task4.py -c PPR -lf
"/home/mansi/Documents/sem1/MWDB/phase/phase3/phase3_sample_data/Labelled/Set2/" -uf
"/home/mansi/Documents/sem1/MWDB/phase/phase3/phase3_sample_data/Unlabelled/Set 2/"
-lm
"/home/mansi/Documents/sem1/MWDB/phase/phase3/phase3_sample_data/labelled_set2.csv"
-l 2 -u 2
```

Execution time: 120 sec

Task5:

Query1:

Input:

L: 10 k : 10 t : 20 Query Image: Hand_0000674.jpg

command: python task5.py -l 10 -k 10 -t 20 -q Hand_0000674.jpg -folder-path

"/home/mansi/PycharmProjects/mwdb_phase3/Hands/"

output:

Output for Task 5

Overall Images 144

Unique Images 143

Top 20 similar Images



Overall Images : 175

Unique Images : 174

20 similar images for the query image Hand_0000674.jpg

ImageId:Hand_0000674.jpg

ImageId:Hand_0000675.jpg

ImageId:Hand_0000682.jpg

ImageId:Hand_0000591.jpg

ImageId:Hand_0000423.jpg

ImageId:Hand_0000666.jpg

ImageId:Hand_0001902.jpg

ImageId:Hand_0001564.jpg

ImageId:Hand_0004674.jpg

ImageId:Hand_0009505.jpg

ImageId:Hand_0000105.jpg

ImageId:Hand_0004673.jpg

ImageId:Hand_0005953.jpg

ImageId:Hand_0004675.jpg

ImageId:Hand_0001944.jpg

ImageId:Hand_0011026.jpg

ImageId:Hand_0006233.jpg

ImageId:Hand_0004521.jpg

ImageId:Hand_0006212.jpg

ImageId:Hand_0008840.jpg

Execution time:2.4264984130859375 seconds

Query2:

Input:

L: 10 k : 13 t : 20 Query Image: Hand_0000674.jpg

command: python task5.py -l 10 -k 13 -t 20 -q Hand_0000674.jpg -folder-path
"/home/mansi/PycharmProjects/mwdb_phase3/Hands/"

Output:

Output for Task 5

Overall Images 25

Unique Images 25

Top 20 similar Images



Overall Images : 25

Unique Images : 25

20 similar images for the query image Hand_0000674.jpg

ImageId:Hand_0000683.jpg

ImageId:Hand_0001386.jpg

ImageId:Hand_0004522.jpg

ImageId:Hand_0004521.jpg

ImageId:Hand_0001387.jpg

ImageId:Hand_0004519.jpg

ImageId:Hand_0008584.jpg

ImageId:Hand_0002889.jpg

ImageId:Hand_0002890.jpg

ImageId:Hand_0008343.jpg

ImageId:Hand_0001234.jpg

ImageId:Hand_0010931.jpg

ImageId:Hand_0008385.jpg

ImageId:Hand_0004496.jpg

ImageId:Hand_0000420.jpg

ImageId:Hand_0007873.jpg

ImageId:Hand_0000372.jpg
ImageId:Hand_0009413.jpg
ImageId:Hand_0005303.jpg
ImageId:Hand_0009414.jpg
Execution time:2.5694100856781006 seconds

Query3:

Input:

L: 5 k : 10 t : 20 Query Image: Hand_0000674.jpg

command: python task5.py -l 5 -k 10 -t 20 -q Hand_0000674.jpg -folder-path

"/home/mansi/PycharmProjects/mwdb_phase3/Hands/"

output:



Overall Images : 89

Unique Images : 89

20 similar images for the query image Hand_0000674.jpg

ImageId:Hand_0001427.jpg
ImageId:Hand_0000739.jpg
ImageId:Hand_0000153.jpg
ImageId:Hand_0001959.jpg
ImageId:Hand_0010147.jpg
ImageId:Hand_0003166.jpg
ImageId:Hand_0007000.jpg
ImageId:Hand_0000378.jpg
ImageId:Hand_0010148.jpg

ImageId:Hand_0001432.jpg
 ImageId:Hand_0001551.jpg
 ImageId:Hand_0003469.jpg
 ImageId:Hand_0010796.jpg
 ImageId:Hand_0003364.jpg
 ImageId:Hand_0009655.jpg
 ImageId:Hand_0007176.jpg
 ImageId:Hand_0004668.jpg
 ImageId:Hand_0006635.jpg
 ImageId:Hand_0006638.jpg
 ImageId:Hand_0000623.jpg

Task6:

Query 1:

```
python3 task6_relevance_feedback_1pass.py -t svm -f
/home/mansi/PycharmProjects/mwdb phase3/Hands/
```

[illegible]

Execution time: 121 sec

Query 2:

```
python3 task6_relevance_feedback_1pass.py -t decision_tree -f
/home/mansi/PycharmProjects/mwdb_phase3/Hands/
```



```
(phase3env) (base) mansi@ubuntu-pc:~/Desktop/MWDB_Phase3_Group10-20191204T043657Z-001/MWDB_Phase3_Group10/Code$ python3 task6_relevance_feedback_1pass.py -t decision_tree -f /home/mansi/PycharmProjects/mwdb_phase3/Hands/20_similar_images_for_the_query_image_Hand_0000674.jpg
Hand_0001913.jpg,Hand_0010141.jpg,Hand_0002613.jpg,Hand_0001346.jpg,Hand_0000518.jpg,Hand_0010291.jpg,Hand_0000132.jpg,Hand_0002609.jpg,Hand_0010016.jpg,Hand_0000633.jpg,Hand_0000245.jpg,Hand_0000673.jpg,Hand_0000303.jpg,Hand_0000730.jpg,Hand_0002612.jpg,Hand_0000683.jpg,Hand_0010234.jpg,Hand_0000674.jpg,Hand_0000660.jpg,Hand_0000675.jpg,
Enter comma separated list of relevant images: Hand_0001913.jpg,Hand_0010141.jpg,Hand_0002613.jpg,Hand_0001346.jpg,Hand_0000518.jpg
Enter comma separated list of irrelevant images: Hand_0010291.jpg,Hand_0000132.jpg,Hand_0002609.jpg
Relevant images based on user feedback:56
[['Hand_0000674.jpg', 11.310233450030436], ['Hand_0000683.jpg', 11.344569241525909], ['Hand_0000132.jpg', 11.410960200977865], ['Hand_0010141.jpg', 11.41785865658974], ['Hand_0001913.jpg', 11.41779902525126], ['Hand_0010291.jpg', 11.418911597003403], ['Hand_0000730.jpg', 11.41908793816645], ['Hand_0002612.jpg', 11.42028179538292], ['Hand_0010234.jpg', 11.420839255333522], ['Hand_0002609.jpg', 11.420988071320888], ['Hand_0006243.jpg', 11.422292658994634], ['Hand_0001492.jpg', 11.424319750016622], ['Hand_0001145.jpg', 11.425928540195148], ['Hand_0002611.jpg', 11.42597713058216], ['Hand_0010479.jpg', 11.426028560627467], ['Hand_0002610.jpg', 11.426056962076036], ['Hand_0001847.jpg', 11.426414071568269], ['Hand_0011176.jpg', 11.426951273937362], ['Hand_0009658.jpg', 11.428175628218185], ['Hand_0008059.jpg', 11.42817751084348], ['Hand_0003913.jpg', 11.428858837764277], ['Hand_0010197.jpg', 11.42898016360456], ['Hand_0009209.jpg', 11.429030407566062], ['Hand_0007701.jpg', 11.429342775459643], ['Hand_0007433.jpg', 11.429711652633996], ['Hand_0008060.jpg', 11.430115419582375], ['Hand_0007436.jpg', 11.430519658169576], ['Hand_0005384.jpg', 11.430950328974289], ['Hand_0003253.jpg', 11.430953659677892], ['Hand_0007662.jpg', 11.43108803769569], ['Hand_0005385.jpg', 11.431205287837146], ['Hand_0005383.jpg', 11.43127962681269], ['Hand_0005852.jpg', 11.431554219772481], ['Hand_0005391.jpg', 11.432116144883398], ['Hand_0005853.jpg', 11.43248145549899], ['Hand_0007788.jpg', 11.432829779927383], ['Hand_0007500.jpg', 11.43301098515715], ['Hand_0005389.jpg', 11.43323509372908], ['Hand_0003946.jpg', 11.43341137632952], ['Hand_0008055.jpg', 11.43351365825268], ['Hand_0004980.jpg', 11.433569152111998], ['Hand_0005387.jpg', 11.433663027550086], ['Hand_0005388.jpg', 11.433929323667922], ['Hand_0008062.jpg', 11.434231209075431], ['Hand_0002019.jpg', 11.434482889665231], ['Hand_0006504.jpg', 11.434949795466856], ['Hand_0008174.jpg', 11.43528757061545], ['Hand_0007547.jpg', 11.435674237130847], ['Hand_0006686.jpg', 11.436120017230998], ['Hand_0003984.jpg', 11.437564794773767], ['Hand_0003985.jpg', 11.438706193917838], ['Hand_0001024.jpg', 11.43928431386504], ['Hand_0004874.jpg', 11.439549883769], ['Hand_0009756.jpg', 11.440032163779904], ['Hand_0010372.jpg', 11.440193599406268], ['Hand_0004856.jpg', 11.440553972693188]]
Execution time:26.46509289741516 seconds
```

Execution time: 26 sec

Query 3:

```
python3 task6_relevance_feedback_1pass.py -t ppr -f
/home/mansi/PycharmProjects/mwdb_phase3/Hands/
```

```
(phase3env) (base) mansi@ubuntu-pc:~/Desktop/MWDB_Phase3_Group10-20191204T043657Z-001/MWDB_Phase3_Group10/Code$ python3 task6_relevance_feedback_1pass.py -t ppr -f /home/mansi/PycharmProjects/mwdb_phase3/Hands/20_similar_images_for_the_query_image_Hand_0000674.jpg
Hand_0001913.jpg,Hand_0010141.jpg,Hand_0002613.jpg,Hand_0001346.jpg,Hand_0000518.jpg,Hand_0010291.jpg,Hand_0000132.jpg,Hand_0002609.jpg,Hand_0010016.jpg,Hand_0000633.jpg,Hand_0000245.jpg,Hand_0000673.jpg,Hand_0000303.jpg,Hand_0000730.jpg,Hand_0002612.jpg,Hand_0000683.jpg,Hand_0010234.jpg,Hand_0000674.jpg,Hand_0000660.jpg,Hand_0000675.jpg,
Enter comma separated list of relevant images: Hand_0001913.jpg,Hand_0010141.jpg,Hand_0002613.jpg,Hand_0001346.jpg
Enter comma separated list of irrelevant images: Hand_0000518.jpg,Hand_0010291.jpg
Relevant images based on user feedback:76
[['Hand_0000674.jpg', 11.310233450030436], ['Hand_0000675.jpg', 11.314861797472414], ['Hand_0001346.jpg', 11.407664947902745], ['Hand_0010141.jpg', 11.41785865658974], ['Hand_0000633.jpg', 11.41574718095778], ['Hand_0001913.jpg', 11.41779902525126], ['Hand_0000660.jpg', 11.420242034440827], ['Hand_0002612.jpg', 11.42028179538292], ['Hand_0010234.jpg', 11.420839255333522], ['Hand_0002609.jpg', 11.420988071320888], ['Hand_0002613.jpg', 11.421110175791043], ['Hand_0010016.jpg', 11.421283255248555], ['Hand_0009587.jpg', 11.42152264941792], ['Hand_0010017.jpg', 11.42161016671163], ['Hand_0006243.jpg', 11.422292658994634], ['Hand_0011672.jpg', 11.424263546977869], ['Hand_0001145.jpg', 11.425928540195148], ['Hand_0002611.jpg', 11.42597713058216], ['Hand_0002610.jpg', 11.426056962076036], ['Hand_0010059.jpg', 11.426531303803532], ['Hand_0002316.jpg', 11.426545875869284], ['Hand_0011255.jpg', 11.42690868363614], ['Hand_0011176.jpg', 11.426951273937362], ['Hand_0000563.jpg', 11.42702367016045], ['Hand_0004657.jpg', 11.427122183010505], ['Hand_0010005.jpg', 11.427884215459143], ['Hand_0000896.jpg', 11.428429010893396], ['Hand_0007432.jpg', 11.428825372840288], ['Hand_0009209.jpg', 11.429030407566062], ['Hand_0001661.jpg', 11.429406069850321], ['Hand_0007433.jpg', 11.429711652633996], ['Hand_0010620.jpg', 11.429750320608246], ['Hand_0002323.jpg', 11.429970617876583], ['Hand_0008248.jpg', 11.430180477644383], ['Hand_0007518.jpg', 11.43026451562108], ['Hand_0002055.jpg', 11.430287699368076], ['Hand_0007436.jpg', 11.430519658169576], ['Hand_0010627.jpg', 11.430833447314928], ['Hand_0003253.jpg', 11.430953659677892], ['Hand_0010831.jpg', 11.43105973114129], ['Hand_0000828.jpg', 11.431228732275194], ['Hand_0003344.jpg', 11.431236272403943], ['Hand_0006766.jpg', 11.431293970200093], ['Hand_0002341.jpg', 11.431371744907212], ['Hand_0010830.jpg', 11.431535734667923], ['Hand_0009289.jpg', 11.431634058785727], ['Hand_0001933.jpg', 11.431686288787024], ['Hand_0009101.jpg', 11.432185643447594], ['Hand_0003047.jpg', 11.432336390161545], ['Hand_0000219.jpg', 11.432341330685368], ['Hand_0000938.jpg', 11.432421738407168], ['Hand_0005853.jpg', 11.43248145549899], ['Hand_0010943.jpg', 11.432505011797653], ['Hand_0002449.jpg', 11.432595114120012], ['Hand_0010628.jpg', 11.432644850650515], ['Hand_0002448.jpg', 11.432793609868254], ['Hand_0009222.jpg', 11.432827704563579], ['Hand_0005573.jpg', 11.43320657948967], ['Hand_0003946.jpg', 11.43341137632952], ['Hand_0004980.jpg', 11.433569152111998], ['Hand_0009221.jpg', 11.433761665878658], ['Hand_0009100.jpg', 11.433851993960586], ['Hand_0009700.jpg', 11.434199505670843], ['Hand_0010829.jpg', 11.43444480117266], ['Hand_0009109.jpg', 11.434518407156022], ['Hand_0004985.jpg', 11.43492380590363], ['Hand_0006504.jpg', 11.434949795466856], ['Hand_0007547.jpg', 11.435674237130847], ['Hand_0003518.jpg', 11.43574863632151], ['Hand_0003984.jpg', 11.437564794773767], ['Hand_0003985.jpg', 11.438706193917838], ['Hand_0004386.jpg', 11.438987150605502], ['Hand_0004874.jpg', 11.439549883769], ['Hand_0010372.jpg', 11.440193599406268], ['Hand_0004586.jpg', 11.44170210143454], ['Hand_0007954.jpg', 11.441889942843748]]
Execution time:15.760439157485962 seconds
```

Execution time: 15 sec

Query 4:

```
python3 task6_relevance_feedback_1pass.py -t probabilistic -f
/home/mansi/PycharmProjects/mwdb_phase3/Hands/
```



```
(phase3env) (base) mansi@ubuntu-pc:~/Desktop/MWDB_Phase3_Group10-20191204T043657Z-001/MWDB_Phase3_Group10/Code$ python3 task6_relevance_feedback_1pass.py -t probabilistic -f /home/mansi/PycharmProjects/mwdb_phase3/Hands/20 similar images for the query image Hand_0000674.jpg
Hand_0001913.jpg,Hand_0010141.jpg,Hand_0002613.jpg,Hand_0001346.jpg,Hand_0000518.jpg,Hand_0010291.jpg,Hand_0000132.jpg,Hand_0002609.jpg,Hand_0010016.jpg,Hand_0000633.jpg,Hand_0000245.jpg,Hand_0000673.jpg,Hand_0000303.jpg,Hand_0000730.jpg,Hand_0002612.jpg,Hand_0000683.jpg,Hand_0010234.jpg,Hand_0000674.jpg,Hand_0000660.jpg,Hand_0000675.jpg
Enter comma separated list of relevant images: Hand_0001913.jpg,Hand_0010141.jpg,Hand_0002613.jpg
Enter comma separated list of irrelevant images: Hand_0001346.jpg,Hand_0000518.jpg
Relevant images based on user feedback:150
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Execution time: 16sec