**Instruction for compiling and running Homework 5**

* Files: Zip file comes with following files
  1. *HW5.py:* python file implemented on python 3, which is implementation retrieval effectiveness evaluation.
  2. *Query\_Results.*txt: the ranking output retrieved using lucene (HW4) for 3 queries having query id 12, 13 and 19.
  3. *cacm.rel*: the relevance file of the corpus for all the queries.
  4. *queries*: the query file containing 3 queries to evaluate effectiveness.
* Steps to run HW5 Assignment:

1. Run HW5.py

>python3 HW5.py "Query\_Result.txt" "queries" "cacm.rel”

* Outputs:

1. Effectiveness Measure for each query containing Precision, Recall and NDCG values in following files:
   1. *result\_for\_q12* (result generated for query ID 12)
   2. *result\_for\_q13* (result generated for query ID 13)
   3. *result\_for\_q19* (result generated for query ID 19)
2. *effectiveness\_measure\_op*: Effeteness Measure P@20 for each query and MAP values.

***References***:

* Python Tutorials: <http://www.tutorialspoint.com/python/>
* Python Docs: <https://docs.python.org/>
* Stackoverflow: <http://stackoverflow.com/>

Note:

1. I have provided the output files generated by HW5.py in this zip file for your reference but in actual these output files are generated at runtime as per given corpus input.
2. I have evaluated Lucene based search engine (HW4).