**CS-251-Design and Analysis of Algorithms**

**Assignemnt#1 (CLO-1)**

**20th February 2018**

**Due Date: 2 March 2018**

In this assignment you will implement a small plagiarism detector which your instructor might be using in this course to test your assignments ☺

Implement an Algorithm (Lecture-03 Document Distance Problem) in your favorite programming language. Implement a complete algorithm in steps with clear comments. Consider two small text files as two documents; test your code against those two very small .txt files as a proof of concept. Find out the distance between two documents by calculating the angle between them. Your code must tell if the two documents are exactly, partially or not similar at all.

Once the code is written and tested perform the timing experiments and observe how much time your code takes in milliseconds on particular size of text file. You can later increase the size of your text file and run the timing experiment again to see the behavior of your algorithm.

Write down the size of text file as no. of words, size in bytes (of file), and time in milliseconds your algorithm takes in a table. Also mention the test bed, (OS, language, processing speed) of your computer.

**Hand in**

Upload on LMS

1. The code along with solution /.exe file, text files and
2. .doc /txt file in which your timing experiments are written

**NOTE:**

* **Do not copy the assignment**
* **Late submission are not allowed**