Homework 1
ITCS-4010/5010: Cloud Computing for Data Analysis
Due: Wednesday, January 21, 2009

Homeworks are due at the beginning of class on January 21, and are to be done individually. Homeworks will be graded on the basis of clarity and legibility. See course syllabus for late submission policy.

1. You are to submit a reading report on the following paper that describes the MapReduce programming paradigm.

   MapReduce: Simplified Data Processing on Large Clusters, Jeffrey Dean and Sanjay Ghemawat, OSDI'04: Sixth Symposium on Operating System Design and Implementation, 2004.

   The paper will be available off the course web page `http://www.cs.uncc.edu/~sakella/cloud/`.

   For this homework, your reading report may be up to **two** pages in length, and must be written on a computer.

   (a) Your reading report should provide a concise summary of the paper (e.g., what was the problem addressed, what did they do and what was their approach, what were their contributions).

   (b) It should also provide a brief technical critique of the paper (e.g., is the problem important, what are the merits of the approach, what could have been done better or described more clearly, what might the next steps be).

2. Assume you are given a 3×3 square matrix A. Let A be a diagonal matrix with diagonal elements 1, 5, 3. Compute the eigenvalues and eigenvectors of matrix A.