**CARNEGIE MELLON UNIVERSITY   
15-826 - Multimedia databases and data mining   
Fall 2011 C. Faloutsos**

**Homework 1 submission**

**Andrew ID: \_\_\_\_\_\_\_\_\_\_**

**Question 1: SQL**

1. Schemas which break BCNF: \_\_\_\_

2.

1. Total size of the schema: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

2. Server with the largest traffic size: \_\_\_\_\_\_\_\_\_\_

Query:

3. Number of pairs of users with common interests: \_\_\_\_\_\_\_\_\_\_

Query:

3.

1. Top five users by simultaneous requests:

Query:

Top five users by total traffic:

Query:

2. Query for the number of distinct users and total bandwidth requested:

3. The server with the highest number of distinct users: \_\_\_\_\_\_\_\_\_\_

Query:

4.

1. Total traffic for user Smith: \_\_\_\_\_\_

Query:

Time it took to execute query: \_\_\_\_\_\_\_

2. Index statement:

Time it took to execute query: \_\_\_\_\_\_\_

**Q2: KD-trees**

1. List your changes at the end of the document.
2. nearest neighbor to point of coordinates (0.1,0.1): \_\_\_\_\_
3. all the points within euclidean distance 10 of the point (0.2,0.5): \_\_\_\_\_\_