Grading Policy for homework 8

Total: 50 = 10+10+10+10+10

Average scores:

<table>
<thead>
<tr>
<th></th>
<th>Pb1</th>
<th>Pb2</th>
<th>Pb3</th>
<th>Pb4</th>
<th>Pb5</th>
<th>All</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sec1</td>
<td>6.809524</td>
<td>8.16667</td>
<td>6.761905</td>
<td>8.52381</td>
<td>6.357143</td>
<td>36.61905</td>
</tr>
<tr>
<td>Sec2</td>
<td>6.714286</td>
<td>8.714286</td>
<td>6.666667</td>
<td>7.666667</td>
<td>7.047619</td>
<td>36.80952</td>
</tr>
<tr>
<td>Sec3</td>
<td>6.811321</td>
<td>8.603774</td>
<td>7.037736</td>
<td>8.924528</td>
<td>6.396226</td>
<td>37.77358</td>
</tr>
</tbody>
</table>

Regrading deadline: Dec. 11, 2002

Grader: Haibin Ling (hbling@cs.umd.edu).

Please contact hbling@cs.umd.edu if you have any questions about the grading, but we do appreciate you reading through the following explanations and the solutions before that.

Pb1 : 10pts

1. 5 pt for out-degree, 5pts for in-degree
2. if get O(E) only, 2 pts for each case
3. if get O(E) with some reasonable explanation so that I know you method is ok except you make mistake when calculating the running time, the 3 pts for each case.
4. For the out-degree, some people get O(|V|) by assuming that the length of link list of each vertex is stored in the head, that’s ok ONLY if you give EXPLICIT explanation about this. That is, answer as O(|V|) without proper explanation gets no points.
5. Algorithms slower than expected (refer to solution on class webpage) can get only small parts of points.

Pb2: 10pts

1. 5 pts for each case: adjacency-matrix and adjacency-list. And for the 5 points, 3 is for algorithm, while 2 for running time analysis.
2. Algorithms slower than expected (refer to solution on class webpage) can get only small parts of points.
3. NOTE: for adjacency-list case, when inserting edge to the new graph, i.e., $G^2$, duplicate nodes should be removed! Although no points has been cut on this, but many students (more than half) ignored this.
Pb3: 10pts
  1. 5 pts for each case: adjacency-matrix and adjacency-list. And for the 5 points, 3 is for algorithm, while 2 for cunning time analysis.
  2. Algorithms slower than expected (refer to solution on class webpage) can get only small parts of points.

Pb4: 10pts (7 for running time analysis, 3 for algorithm)
  1. This problem is more concerned on the running time analysis than on the algorithm. So 7 pts are for the running time analysis (i.e., O(|V|^2)), only 3 points is for the explanation.
  2. Algorithms slower than expected (refer to solution on class webpage) can get only small parts of points.

Pb5: 10pts
  1. Algorithm, 7pts
  2. Explanation and running time analysis, 3pts. If give an O(|V|) without explanation, 1 point will be cut.
  3. Algorithms slower than expected (refer to solution on class webpage) can get only very small parts of points.