The main topic for this exercise is *Datalog*, as described in the textbook and its Web supplement.

1. List the members of your group below. Underline your name.

2. Given schema $R(A, B, C), S(D, E)$, provide a Datalog equivalent of the algebra query $\pi_{AC}(R \underset{C\,=\,D}{\bowtie} S)$.

3. Outline an algorithm for converting an algebra query to an equivalent Datalog one.

4. Consider the following Datalog program and database instance:

```
rpath(x,y) ← Edge(x, y, red).
rpath(x,y) ← rpath(x,z), rpath(z,y).
```

(a) Exhibit a minimal fixedpoint and a non-minimal fixedpoint for *rpath*.

(b) Treating the Datalog rules as logical sentences (← being the logical *if*), exhibit a non-minimal model and a minimal model that satisfies these sentences.

Edge		
S	D	color
1	2	red
1	5	green
2	3	green
2	4	red
3	1	red
3	2	blue
3	4	green
4	1	red
5	3	red