Develop a system that will represent a user’s privacy constraints and manage them in an online social network.

**Scenario:** Consider a person who uses an online social network for a business purpose, e.g., LinkedIn, where the user might form connections with people she has worked before, people she is working with now, as well as potential future co-workers that are currently in a different company. The person uses this network to find future jobs. However, she doesn’t want her current manager or co-workers to know about this until she has secured a new position.

**Technical Details:** You are to develop an agent to help this person with managing her privacy:

- Have at least three examples of privacy requirements that the user would like to represent.
- Decide on an access model that you will use to represent the user’s privacy requirements. Pick an actual language to represent them (such as XACML).
- Set up a toy social network where you have at least 10 users that are connected to each other with various relations (e.g., colleague, manager, and so on).
- Have a system that will ask a user to enter her privacy constraints and allow her to share content with other users honoring her privacy requirements.

Feel free to extend the above scenario to show interesting cases.

You will give a demo of your system on the due date and hand in a detailed report as hard-copy. Be prepared to show all aspects of your project. You are responsible for facilitating the demo so make sure you have the necessary software.