CSC541 Project
Data Structures and Algorithms for SOA-based enterprise configuration management
Deadline: Monday September 30th 2013, 11:59 PM

1. (5 points) Answer the following questions:
   (a) What are XML Namespaces?
   (b) What is Xpath?
   (c) What is DOM and how does it relate to XML?
   (d) What are XML serialization and binary serialization?
   (e) What is Xquery?

2. (5 points) Provide a graphical representation of the configuration in the file assigned to your team. This is the *edgeconfig_teamid.xml* file that is unique to your team. The TAs will provide this file in due time.

3. (20 points) Write a program to accept and query the configuration xml file. The program can be written in any language on any platform. The program should provide the following commands. No graphical interface should be provided.

   The following are required commands.

   Configuration <input_xml_file> Should load the input configuration file.
   DPDevice - Should list the number of DPDevices in the input configuration file.
   DPDevice <device_id> DPDomain - Should list the number of Domains in DPDevice <device_id>
   DPDevice <device_id> DPDomain <domain_id> DeploymentPolicy Should list the number of deployment policies in DPDevice <device_id> and DPDomain <domain_id>
   DeploymentPolicy <policy_id> Serviceendpoint Should list the number of service end points in deploymentpolicy <policy_id>
   DeploymentPolicy <policy_id> Serviceendpoint <serviceendpoint_id> Should list all the attributes of the <serviceendpoint_id> of deploymentpolicy <policy_id>.

   Use the sample edgeconfig2_sample.xml file (supplied by the TAs in due time) to test your program based on the above commands. Here are some example commands and the results expected for the sample file given.

   Command: **Configuration** edgeconfig2_sample.xml
   Result: Should load the xml file and report success and that the query tool is ready to accept query commands.

   Command: **DPDevice**
   Result: 100

   Command: **DPDevice DPDevice_0 DPDomain**
   Result: 8