King Mongkut's University of Technology Thonburi
Final Exam of Second Semester, Academic Year 2010

Selected Topics in Computer Enging I

CPE 4514 Web Technology and Content Management System **Computer Engineering Department**

Tuesday 1 March 2011   **9.00-12.00 h.**

Instructions
1. This examination contains 10 problems, 5 pages (including this cover page).
2. The total score is 30 points.
3. The answers must be written in this exam paper.
4. Paper dictionary is not allowed.
5. Calculator is not allowed.

Students must raise their hand to inform to the proctor upon their completion of the examination, to ask for permission to leave the examination room.
Students must not take the examination and the answers out of the examination room.

Students will be punished if they violate any examination rules. The highest punishment is dismissal.

Name..

Student ID ....

This examination is designed by

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REST Web Service, RSS NEWS feed (8 points)

1. What are methods that can be used in the REST web service. (1 point)

2. You are assigned to implement the REST web service that provides the information of products in the factory. Sketch the pseudo-code for implement the service. You must specify the following service information: (5 points)

   2.1 List of input parameters:

   2.2 Service name:

   2.3 Sketch of output parameter(s) as xml format:

   2.4 Pseudo-code (You do not need to write the code for database connecting, querying, and xml generating, just write the procedure of the program)

   2.5 Example of url for client to request service.

3. Give the definition of the following terms. (2 points)

   3.1 NEWS aggregation websites:

   3.2 Give one advantage of ATOM over RSS.

SOAP Webservice (16 points)

4. Which following statements about SOAP based web service are true or false? (5 points)
   4.1 (True/False) Web service may provide lower efficiency in term of time and accuracy compared to traditional client server system.

   4.2 (True/False) SOAP Web service is a message-driven process means that the request parameters from client and the response from server are contained in the soap messages.

   4.3 (True/False) The information such as reference number and message timestamp always put in the body of soap message.

   4.4 (True/False) To request the service, the clients will receive only url of WSDL from the service provider and they can implement the program to call that web service by using the information described in WSDL.

   4.5 (True/False) Both of SOAP message and WSDL use XML format.

5. What are components of Soap based web service? Explain the meaning of each component? (3 points)

6. What is the meaning of abstract definitions of operations and messages and the concrete binding to network protocol in the end point tag of WSDL? (4 points)

7. Given the part of WSDL as follow:

```
<wsdl:types>
-       <s:schema elementFormDefault="qualified" targetNamespace="http://www.webserviceX.NET/">
-               <s:element name="GetSunSetRiseTime">
-                       <s:complexType>
-                               <s:sequence>
                                        <s:element minOccurs="1" maxOccurs="1" name="L" type="tns:LatLonDate" />
                                </s:sequence>
                        </s:complexType>
                </s:element>
-               <s:complexType name="LatLonDate">
-                       <s:sequence>
                                <s:element minOccurs="1" maxOccurs="1" name="Latitude" type="s:float" />
                                <s:element minOccurs="1" maxOccurs="1" name="Longitude" type="s:float" />
                                <s:element minOccurs="0" maxOccurs="1" name="SunSetTime" type="s:float" />
                                <s:element minOccurs="0" maxOccurs="1" name="SunRiseTime" type="s:float" />
                                <s:element minOccurs="1" maxOccurs="1" name="Day" type="s:int" />
                                <s:element minOccurs="1" maxOccurs="1" name="Month" type="s:int" />
                                <s:element minOccurs="1" maxOccurs="1" name="Year" type="s:int" />
                        </s:sequence>
                </s:complexType>
-               <s:element name="GetSunSetRiseTimeResponse">
-                 <s:complexType>
-                       <s:sequence>
                 <s:element minOccurs="1" maxOccurs="1" name="GetSunSetRiseTimeResult" type="tns:LatLonDate" />
                        </s:sequence>
                </s:complexType>
                </s:element>
        </s:schema>
</wsdl:types>

<wsdl:message name="GetSunSetRiseTimeSoapIn">
        <wsdl:part name="parameters" element="tns:GetSunSetRiseTime" />
</wsdl:message>
<wsdl:message name="GetSunSetRiseTimeSoapOut">
        <wsdl:part name="parameters" element="tns:GetSunSetRiseTimeResponse" />
</wsdl:message>

-       <wsdl:portType name="SunSetRiseServiceSoap">
-               <wsdl:operation name="GetSunSetRiseTime">

                        <wsdl:input message="tns:GetSunSetRiseTimeSoapIn" />
                        <wsdl:output message="tns:GetSunSetRiseTimeSoapOut" />
                </wsdl:operation>
        </wsdl:portType>
```

Specify the function name and parameters that the client needs in order to make a request to this service. You need to input the example of parameters that match the input message definition (4 points)

- Function name: ....
- Parameters: array(

  ....

)

Google API (3 points)

8. Which following statements about SOAP based web service are true or false? (3 points)

   8.1 (true/false) The size and position of Google map that will be shown in our web page are specified in the div tag with id="map_canvas"

   8.2 (true/false) The number 13 in the statement "map.setCenter(new GLatLng(37.4419, -122.1419), 13);" indicate the boundary of the map.

   8.3 (true/false) We can add the pointer to the map by using "addOverlay" method and Gmarker "object".

JAVA Script (3 points)

9. Rewrite the following conditional statement into the if..else statement. (2 points)

   9.1 y=(x==1)?2:4;

   9.2 y=(x=='Doraemon')?'Hello my friend':'Hello';

10. How many kinds of popup box for java script? What is the different among these pop up box? (1 points)