MSDS 7330
File Organization and Database Management
Quiz Python 1

This is a synchronous session quiz assignment for MSDS7330, File Organization and Database Management. This quiz is due at the end of the same class period in which it is handed out or whenever the instructor tells you to hand it in; whichever comes first. Enter your answer to each question in the MSDS 7330 Quiz Answer Sheet Word document. Be sure to place your name and today's date in the Quiz Answer Sheet, and place your last name and the unit number at the beginning of the file name. For example, the filename for the quiz answer sheet for Unit 12 for Daniel Engels should be *Engels12MSDS7330QuizAnswerSheet.docx*.

For one question, in the Quiz Answer Sheet write out the explanation why the answer is correct. Your chosen question should be a different question from all other students in the session.

Your answer Word document should be submitted on the 2DS system for the quiz number equal to the unit number. For example, the quiz for Unit 12 should be submitted for Quiz 12.

1) What does 'XML' stand for?
   a) Extended Markup Language
   b) Extensible Markup Language
   c) Extensible Marking Language
   d) Extended Marking Language

2) An original goal of the design of XML included which of the following?
   a) hierarchical tag structure
   b) machine readable data interchange format
   c) human readable meta-data
   d) all of the above.
   e) none the above.

3) Which of the following is not a function of XML?
   a) Structure Information
   b) Store Information
   c) Style Information
   d) Transport Information

4) What does 'DTD' stand for?
   a) Direct Type Definition
   b) Document Type Definition
   c) Do The Dance
   d) Dynamic Type Definition

5) What is the correct syntax of the declaration which defines the XML version?:
   a) `<xml version="A.0" />`
   b) `<?xml version="A.0" />`
   c) `<?xml version="A.0"?>`
   d) `<?xml version=A.0?>`

6) Which of the following statements is a true statement?
   a) All XML elements must have a closing tag
   b) All XML elements must have defined parameters
   c) All XML elements must be lower case
   d) All XML documents must have a DTD

7) A comment in XML document is given by which of the following?
   a) `<?-- -->`
   b) `<!-- --!>`
   c) `<!-- -->`
   d) `</-- -- >`

8) XML uses the features of which of the following?
   a) HTML
   b) XHTML
   c) VML
   d) SGML

9) The use of a DTD in XML development is:
   a) required when validating XML documents
   b) no longer necessary after the XML editor has been customized
   c) used to direct conversion using an XSLT processor
   d) a good guide to populating a templates to be filled in when generating an XML document automatically

10) Which of the following is not a valid JSON object?

a) { name: "Smiley",
   age: 20,
   phone: "888-123-4567",
   email: "smiley@xyz.com",
   happy: true }

b) { "name": "Smiley",
   "age": 20,
   "phone": null,
   "email": null,
   "happy": true }

c) { "name": "Smiley",
   "age": 20,
   "phone": "888-123-4567",
   "email": "smiley@xyz.com",
   "happy": "true" }

d) { "name": "Smiley",
   "age": 20,
   "phone": {},
   "email": "smiley@xyz.com",
   "happy": true }

11) Which of the following is not a valid JSON array?

a) ["1", "2", "dog", "cat", "true",
   "false", ["1", "dog", "null"],
   {"pet":"dog", "fun":"true"}]

b) [[1, 2, "dog", "cat", true,
   false, [1, "dog", null],
   {"pet":"dog", "fun":true}]]

c) [{1}, {2}, {"dog"}, {"cat"},
   {true}, {false}, [1, "dog", null],
   {"pet":"dog", "fun":true}]

d) [1, 2, "dog", "cat", true,
   false, [1, "dog", null],
   {"pet":"dog", "fun":true}]

12) Consider the JSON Schema specification in Table I. Select, from the following choices, the JSON data that is valid according to the JSON Schema specification in Table I.

a) { "ItemID": "Item123",
   "ItemName": "desk",
   "Price": 50,
   "Sellers": ["Amy","Ben"],
   "Ratings": [{"Rater":"Amy",
        "Score":5},
        {"Score":1},
        {"Rater":"Carl",
        "Score":4}],
   "AvgRating": 3.33,
   "FreeShipping": "yes" }

b) { "ItemID": "Item123",
   "ItemName": "desk",
   "Price": 50,
   "Sellers": ["Amy","Ben"],
   "Ratings": [{"Rater":"Amy",
        "Score":5},
        {"Score":0},
        {"Rater":"Carl",
        "Score":4}],
   "AvgRating": 3.33,
   "FreeShipping": true }

c) { "ItemID": "123",
   "ItemName": "desk",
   "Price": 50,
   "Sellers": ["Amy","Ben"],
   "Ratings": [{"Rater":"Amy",
        "Score":5},
        {"Score":1},
        {"Rater":"Carl",
        "Score":4}],
   "AvgRating": 3.33,
   "FreeShipping": true }

d) { "ItemID": "Item123",
   "ItemName": "desk",
   "Price": 50,
   "Sellers": [ ],
   "Ratings": [{"Rater":"Amy",
        "Score":5},
        {"Score":1},
        {"Rater":"Carl",
        "Score":4}],
   "AvgRating": 3.33,
   "FreeShipping": true }

TABLE I
JSON Sᴄʜᴇᴍᴀ Sᴘᴇᴄɪғɪᴄᴀᴛɪᴏɴ

```
{
  "type": "object",
  "properties":
    { "ItemID": { "type":"string", "pattern":"Item*" },
      "ItemName": { "type":"string" },
      "Price": { "type":"integer", "minimum":10, "maximum":100 },
      "Sellers": { "type":"array", "maxItems":3,
                   "items": { "type":"string" }},
      "Ratings": { "type":"array",
                   "items":
                     { "type": "object",
                       "properties": {"Rater":
                                       {"type": "string", "optional": true},
                                      "Score":
                                       {"type": "integer", "minimum":1,
                                        "maxiumum":5}}}},
      "AvgRating": { "type":"number", "optional":true },
      "FreeShipping": {"type":"boolean" }
    }
}
```