DESCRIPTION

SUTDENT'S NAME: VARUNSAI. K	
PROGRAM:	**Web design**
DATE: 25-09-2021	
TEACHER'S NAME: SUTHAKHAR.P	
COURSE:	**Data Processing Technologies (TTD)**
TYPE OF EXAM:	**Final exam**
DURATION:	**3 hours**
AUTHORIZED MATERIAL:	**None**

OTHER INSTRUCTIONS FROM THE TEACHER

The exam has **XX5** pages including the cover page. In accordance with the syllabus, the evaluation is worth **XX25** % of the final grade.

Penalties imposed on a student accused of an attempt at plagiarism could include, but are not limited to, a grade of 0% for examination or for the entire course. The student could also be either put on probation, suspended and / or expelled from the program.

OTHER INFORMATION

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Revised by : **M.-J. Villeneuve**

Approved by : _____

Good luck !

Question 1

/3

Briefly explain what is an API.

API (Application Programming Interface) is not the database or even a server, it is a code that governs the access points for the server. Ex= Buying a movie ticket, you went to movie site; enter movie name, and credit card info and print out tickets. But what actually is going on? APIs are collaborating behind the scenes with other application. As a real-world example, think about the electricity supply in your house, apartment, or other dwellings. If you want to use an appliance in your house, you plug it into a plug socket, and it works. You don't try to wire it directly into the power supply — to do so would be inefficient and, if you are not an electrician, difficult and dangerous to attempt. In the same way, if you want to say, program some 3D graphics, it is a lot easier to do it using an API written in a higher-level language such as JavaScript or Python, rather than try to directly write low level code (say C or C++) that directly controls the computer's GPU or other graphics functions.

Question 2

/3

Briefly explain what is a third-party API

Third Party API is basically provided by Third party example Facebook,Twitter or Google. It basically helps you to access their functionality via javascipt and implement in your site.

One of the most obvious examples is using mapping APIs to display custom maps on your pages. This typically involves first linking to a JavaScript library available on the server via a `<script>` element, as seen in our Mapquest.

Question 3

/3

Give an example of a brower's API.

The common example is DOM(Document Object Model) API , which allows you to manipulate HTML and CSS, Canvas and WebGl helps for drawing and manipulating graphics,WebRTC helps in audio and video APIs. Browser APIs are built into your web browser and are able to expose data from the browser and surrounding computer environment and do useful complex things with it. For example, the Web Audio API provides JavaScript constructs for manipulating audio in the browser — taking an audio track, altering its volume, applying effects to it, etc. In the background, the browser is actually using some complex lower-level code (e.g. C++ or Rust) to do the actual audio processing. But again, this complexity is abstracted away from you by the API.

Question 4

/3

Briefly explain what is a public API

Public API (Open API) in simple meaning API which is available for anyone. This API provides developers with access to a proprietary software application or web-service. APIs are sets of requirements that govern how one application can communicate and interact with another. APIs can also allow developers to access certain internal functions of a program, although this is not typically the case for web APIs. In the simplest terms, an API allows one piece of software to interact with another piece of software, whether within a single computer via a mechanism provided by the operating system or over an internal or external TCP/IP-based or non-TCP/IP-based network. Currently, many APIs are provided by

organizations for access with HTTP. APIs may be used by both developers inside the organisation that published the API or by any developers outside that organisation who wish to register for access to the interface.

Question 5

What is an endpoint?
(Circle the letter corresponding to your answer)

/3

a) A computer system linked to a public database.

b) The final line of an API script closing an external file containing data

c) The URL of a file containing data.

d) An AJAX request.

e) None of the above.

Question 6

/3

(True or false, circle your answer)

In order to retrieve data from an external file using JavaScript, it isn't always mandatory to make an AJAX request.

TRUE FALSE

Question 7

/3

Name the two languages most commonly used to make data available using an API.

We can create an API in any computer language, the two most commonly used languages are following:

- PHP
- Python
- The most popular application programming interface created by PHP developers are: Open weather map, API football, IMDb, Cricket live scores, musicXmatch.
- The most popular API's created by python developers are : Yahoo finance, Temp mail, Spiracular, IEX...etc.

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Question 8

What language is used in the following script example :

```
<container>
        <name>John</name>
        <age>42</age>
</container>
```

XML (extensible Markup Language)

XML is used to store and transport data. It is a self descriptive language. XML wrapped its information in tags.

In above example there is a container is tag contain information. The "Name" tag contains information about person's name. In "Age" tag there is a information about persons age.

Question 9

What language is used in the following script example:

```
{
name: "John",
age: "42"
}
```

On the basis of given example syntax **{ name: "John", age: "42" },** it can be said that the language used here should be most likely **Javascript,** as the given syntax resembles to the javascript objects syntax, and since JSON syntax is derived from JavaScript object notation, and no more details are specified in the question, there is a chance that the language used here can be **JSON** (within javascript) as well.

Question 10

/5

Supposing data are gathered in an external file named «mydata.json», write the jQuery instructions needed to display the name in a DIV containing #result as ID (not including the AJAX request).

Data :

```
  {
  name: "John",
  age: "42"
}
```

Jquery code below for JSON file:

```
<head>
      <title>The JQuery Json</title>
      <script src =
"https://ajax.googleapis.com/ajax/libs/jquery/2.1.3/jquery.
min.js"></script>

      <script>
         $(document).ready(function() {

            $("#driver").click(function(event){
               $.getJSON('display.json', function(jd) {
                  $('#stage').html('<div> Name: ' + jd.name
+ '</div>');
                  $('#stage').append('<div>Age : ' +
jd.age+ '</div>');
               });
            });

         });
      </script>
 </head>
 <body>
      <p>Click on the button to load display.html file:</p>
      <div id = "stage" style = "background-color:#cc0;">
         STAGE
      </div>
      <input type = "button" id = "driver" value = "Load
Data" />
</body>
$.ajax({
  method: "POST",
  url: "some.php",
  dataType: "json",
  data: {}
}).done(json => console.log(json));
```

Question 11

/10

Supposing data are gathered in an external file named «mydata.json», write the jQuery instructions needed to display the age in a DIV containing #result as ID (including the AJAX request.

Data :

```
{
users: [
nom:
"John",
age: "42"
]
```

```
<div id="result"></div>

<script>
$(document).ready(function(){

Data:
{
users: [
nom: "John",
age: "42"
]
}
$("#result").html(Data.users.age);
});
</script>
```

Question 12

/3

(Circle your answer)
In order to evaluate the number of items contained in an array named « container », how could we proceed?

a) container[i]

b) find(container).[i]

c) container.length

d) $.length.("container")

e) None of the above