

## DESCRIPTION

STUDENT'S NAME: Manjit Singh

PROGRAM: **Web design**

DATE: 25/sep/2021

TEACHER'S NAME: Suthkar

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

Prepared by : **Jean-Guy Turgeon**

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

Approved by : \_\_\_\_\_

**Good luck !**

**Question 1**

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**Briefly explain what is an API.**

Answer API is the **acronym for Application Programming Interface**, which is a software intermediary that allows two applications to talk to each other. Each time you use an app like Facebook, send an instant message, or check the weather on your phone, you're using an API.

**Question 2**

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**Briefly explain what is a third party API.**

Answer Third party APIs are APIs provided by third parties — generally companies such as Facebook, Twitter, or Google — **to allow you to access their functionality via JavaScript and use it on your site**. One of the most obvious examples is using mapping APIs to display custom maps on your pages.

**Question 3**

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**Give an example of a browser's API.**Answer

Canvas API

The Canvas API is used to draw graphics using JavaScript and HTML. It is widely used in fields such as photo manipulation, video processing, data visualization, and game development. ( A cool use of the canvas API that I experienced recently was putting freehand digital signatures on a user agreement web page. )

The fundamental element of the Canvas API is the canvas HTML element. Once you have a canvas element defined and obtained its context with the `getContext()` method, you can use the Canvas API to perform graphic operations on it.

**Question 4**

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**Briefly explain what is a public API.**

Answer An open API, also called public API, is an application programming interface made publicly available to software developers. Open APIs are published on the internet and shared freely, allowing the owner of a network-accessible service to give a universal access to consumers.

Also, Most large businesses have public APIs. An API is basically how a 3rd party can use the programming functionality you've created. You know how you can go do things like 'like us on facebook' or 'share this to your wall' on most websites? That's because Facebook released a public API. It won't let you make your own facebook app (I tried to make a command line version and failed) but it will let you do some stuff. Almost everyone produces a public API of some sort or another. It's basically telling the programming world how to interact with you.

However, not everything has to be public. Facebook's API certainly isn't all public. There are places, though, where there are APIs that are all public; WordPress is a good example of this. They create tools, and a GUI to design websites; if you are a programmer, you can instead download their libraries and the API for them that will allow you to use their functionality with your code instead of through their website.

## Question 5

**What is an endpoint?**

**(Circle the letter corresponding to your answer)**

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- 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.

Answer      The most common formats found in modern APIs are JSON (JavaScript Object Notation) and XML (Extensible Markup Language).

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**Question 8**

What language is used in the following script example :

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

Answer a short program is written in XML Coding.

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**Question 9**

What language is used in the following script example :

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

Answer Json language is implemented over here.

## Question 10

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

Data :

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

```
<script type="text/javascript">
$(document).ready(function() {

    $.getJSON("mydata.json", function(xyz) {

        ;

        $("#re-sult ").append(<h2> xyz.DATA.name </h2>);

    });

});
</script>
```

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## Question 11

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"
  ]
}
```

```
<script language="JavaScript">
$(document).ready(function(){
```

```
$.ajax({
  type: "GET",
  url: "mydata.json",
  dataType: "json",
  success: function(json){

    var i = 0;

    $(json).find('data').children('users').each(function(){

      var age = $(this).find('age').text();

      $("#result").html(age).appendTo("#results");

    });
  }
});
</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(#)