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| DESCRIPTION |
| SUTDENT’S NAME: Kanwardeep Singh |
| PROGRAM: **Web design** |
| DATE: 25 September |
| TEACHER’S NAME: Sutakhar |
| COURSE: **Data Processing Technologies (TTD)** |
| TYPE OF EXAM: **Final exam** |
| DURATION: **3 hours** |
| AUTHORIZED MATERIAL: **None** |

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| 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. |

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| OTHER INFORMATION |
| Prepared by : **Jean-Guy Turgeon**  Revised by : **M.-J. Villeneuve**  Approved by : |

**Good luck !**

# Question 1 /3

**Briefly explain what is an API.**

API stands for Application Programming Interface; it consists in a set of rules and specifications that applications have to follow in order to communicate with each other. They govern how the data should be shared all over the internet. For example, there is any object like laptop or anything. An API will take care of the details of it.

# Question 2 /3

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

Third-party APIs are not built into the browser, and it is generally necessary to retrieve their code and data from an external source on the web. For example, the Twitter APIs allow you to do different things such as displaying your latest tweets on a web document. It provides functionalities capable of making queries to the Twitter service and return specific information.

# Question 3 /3

**Give an example of a brower's API.**

The most obvious example is the DOM (Document Object Model) API, which allows you to manipulate HTML and CSS — creating, removing and changing HTML, dynamically applying new styles to your page, etc.

**Question 4** /3

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

**Public APIs are also known as Open APIs. It consists of a large amount of data that shared by developers as they gave access different services to the users. So, it made data publicly available. There are very large number of APIs to choose from and there are different ways to connect to them.**

# Question 5

**What is an endpoint?**

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

/3

a) A compouter system linked to a public database.

1. The final line of an API script closing an external file containing data
2. The URL of a file containing data.
3. An AJAX request.
4. None of the above.

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| **Question 6**  **(True or false, circle your answer)**  **In order to retrieve data from an external file using JavaScript, it isn't alway mandatory to make an AJAX request.**  **TRUE FALSE**  **Question 7**  **Name the two languages most commonly used to make data available using an API.**  JSON & XML.  **Question 8**  **What language is used in the folowwing script example :**  <container>  <name>John</name>  <age>42</age>  </container>  XML Language.  **Question 9**  **What language is used in the folowwing script example :**  {  name: "John",  age: "42"  } | /3    /3    /3  /3 |

JSON.

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| **Question 10**  **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"  <!DOCTYPE html>  <html>  <head>  <script src="https://ajax.googleapis.com/ajax/libs/jquery/3.5.1/jquery.min.js"></script>  <script>  $(document).ready(function(){  $("button").click(function(){  $.getJSON("mydata.json", function(result){  $("#result").append(result.firstName + " ");  });  });  });  </script>  </head>  <body>  <button>Get JSON data</button>  <div id="result"></div>  </body>  </html> | /5 |

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| **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?**

1. container[i]
2. find(container).[i]
3. container.length
4. $.length.("container")
5. None of the above