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Click or tap here to enter text.

**Using Mozilla Firefox is strongly recommended for this Activity because it can transform JSON responses into a human readable format.** (Raw Data > "Pretty Print") (#)*is**points for API and Time Zone questions.*

1. (5) What is sent via the API from one system to another? What is sent back?

API sends: The request of the user

Sent back: The response of the request sent by the user.

2. (5) Use api.agify.io to predict the age of a person using your given name and an ISO country code

API URL request: https://api.agify.io/?name=aliriza

JSON response: {"count":273,"name":"aliriza","age":59}

3. (5) Use the time zone API request at worldtimeapi.org

API URL request: http://worldtimeapi.org/api/timezone/America/Toronto

JSON response: {"abbreviation":"EDT","client\_ip":"2607:fea8:3240:7b60:2d13:ce3f:bce1:dcca","datetime":"2023-07-16T13:39:20.879373-04:00","day\_of\_week":0,"day\_of\_year":197,"dst":true,"dst\_from":"2023-03-12T07:00:00+00:00","dst\_offset":3600,"dst\_until":"2023-11-05T06:00:00+00:00","raw\_offset":-18000,"timezone":"America/Toronto","unixtime":1689529160,"utc\_datetime":"2023-07-16T17:39:20.879373+00:00","utc\_offset":"-04:00","week\_number":28}

4. (16)Using the above JSON data from worldtimeapi.org, fill in the JSON key / value pairs relating to the descriptions in the table below.

|  |  |  |
| --- | --- | --- |
| *See Response Schema* | JSON key | JSON value |
| UTC date/time in ISO8601 format | "utc\_datetime" | "2023-07-16T17:39:20.879373+00:00" |
| Unix UTC timestamp | "unixtime" | 1689529160 |
| Unix UTC to location difference | "utc\_offset" | "-04:00" |
| Location's daylight-saving time difference | "dst\_offset" | 3600 |
| Location date/time in ISO8601 format | "datetime" | 2023-07-16T13:39:20.879373-04:00" |
| How do you calculate the *location's* *timestamp* from the UTC timestamp using JSON keys? | Local Timestamp = UTC Timestamp + UTC Offset | -04.00 |

**5.**  (5) How did you confirm that your location timestamp when converted to data/time was the same as the Location date/time in ISO8601 format in the JSON schema? Show your test and the result.

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The Unix timestamp can be changed into a local timestamp and using the those values:

The local timestamp for "2023-07-16T13:39:20.879373-04:00" displays the time and date in your area using the notation yyyy-mm-dd HH:MM:SS.

SDLC – Software Development Life Cycle 54 points = 9 points × 6 items, 75+ words each

**Determine**:

When I initially read through the entire assignment, I test the question outputs. I then make an effort to gather information for each of the activity's questions and come up with suggestions to produce the desired results in accordance with the activity's defined outcomes. In addition, if I still don't get the results I want, I try to remember what I learned about the same subject in the lecture and I read the entire power point presentation. I finish my assignment in this manner.

**Define:**

When I finish the full assignment, the first and most crucial step is to test the outputs of the questions. I then try to assess the entire assignment problem and then offer my thoughts to get the result anticipated in the activity's output and solve the issue or problem.

I may gain a clear knowledge of my expected result, all inputs, and assignment processing in this way. That is how I may clarify my specific needs in order to comprehend the topic of the project or activity

**Design**:

Because it makes any work's logic simple to understand, I employ pseudocode for this. Additionally, I employ a variety of other technical abilities, such as writing error-free code, creating clear outline, debugging, and many others, which are made clearer through code.

defining by CRT\_SECURE\_WARNINGS 1.

2. Begin with the (int main (void)) main function.

3. Employ variables as necessary.

4. Use various loops, such as if...else, for, and while loops, depending on the situation.

5. Put the programme to bed by returning 0.

6. Final code building and debugging attempt..

**Develop:**

I started by making a note of every thought that came to me. I use control statements and techniques in the source code to make it streamlined and easy for me to grasp. Then, I make use of all the variables that are required in order to produce the desired result specified in the command. I continue by writing the code after that.

**Deliver**:

I start by sending my source code file to the matrix using WinSCP. I've established a folder called IPC144, and within of it, there are other files called w1, w2, w3, etc., which represent and categorise the data regarding the workshop's number. I then launch Windows Powershell and log in using the console to the matrix server. I issue the command that sends my assignment to the professor.

**D'oh**:

I started by making a note of every thought that came to me. I use control statements and techniques in the source code to make it streamlined and easy for me to grasp. Then, I make use of all the variables that are required in order to produce the desired result specified in the command. I continue by writing the code after that.

Software Version 5 × 2 points each

A. I work with WinSCP 5.21.8 and Visual Studio 17.5

B. The software version is in three stages overall. The software's most recent or newer version is indicated by the first digit.

C. In terms of forward compatibility, software needs to be able to work on both the newest processor and hardware as well as the later version.

D. Software should be running with previous or older version of hardware and software.

E.