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🡺 Task Manager can tell you the name of PowerPoint’s .EXE file. What is it? How did you find it?  
 … *never mind if you are working on a Seneca lab PC*. Do try it on your own machine.

🡺 An API is like… \_\_\_\_\_\_\_\_\_\_ ?

🡺 What is sent from the API to a system?

🡺 What is sent from the system back through the API?

🡺 What was the Request displayed on the page?

GET https://translation.googleapis.com/language/translate/v2?q=dog&target=fr&format=html&source=en&key={YOUR\_API\_KEY}

🡺 What was the Response to the translation request?

cache-control: private

content-encoding: gzip

content-length: 83

content-type: application/json; charset=UTF-8

date: Wed, 10 Oct 2018 13:38:03 GMT

server: ESF

vary: Origin, X-Origin, Referer

{

"data": {

"translations": [

{

"translatedText": "chien"

}

]

}

}

Toronto:

Latitude: 43.653963

Longitude: -79.387207

Timestamp: 1539165600 -> October 10th 2018 @ 10:00am

🡺 What is your timezone API request for Toronto right now?

JSON – output format

<https://maps.googleapis.com/maps/api/timezone/json?location=43.653963,-79.387207&timestamp=1539165600&key=AIzaSyBZQBnlke9vzjcTo0PL1HmggIlhNBh4chU>

XML – output format

<https://maps.googleapis.com/maps/api/timezone/xml?location=43.653963,-79.387207&timestamp=1331161200&key=AIzaSyBZQBnlke9vzjcTo0PL1HmggIlhNBh4chU>

🡺 What was the JSON Response AND what does JSON mean?

JSON Response:

{

"dstOffset" : 3600,

"rawOffset" : -18000,

"status" : "OK",

"timeZoneId" : "America/Toronto",

"timeZoneName" : "Eastern Daylight Time"

}

JSON – Stands for JavaScript Object Notation which is one of the output formats that specifies how the output will look.

🡺 What was the XML Response AND what does XML mean?

XML Response:

<TimeZoneResponse>

<status>OK</status>

<raw\_offset>-18000.0000000</raw\_offset>

<dst\_offset>0.0000000</dst\_offset>

<time\_zone\_id>America/Toronto</time\_zone\_id>

<time\_zone\_name>Eastern Standard Time</time\_zone\_name>

</TimeZoneResponse>

XML – eXtensible Markup Language also one of the output formats that can be chosen that also specifies how the output will look.

🡺 How would you convert the UTC timestamp to Toronto's local time using the information provided by the API? (the above link and a calculator will help).

Toronto’s local time = timestamp(Specified in the URL) + dstOffset + rawOffset

**SDLC**

🡺 (25 points) Apply the SDLC to a project or assignment in IPC144 or ULI101. How will you use the steps of software development to complete your next assignment?

IPC Structure

***What is the problem?***

**–> Determine**:

**–> Define**:

***What is the solution?***

**–> Design**:

**–> Develop**:

**–> Deliver**:

🡺 (15 points) **Many devices exist in the Internet of Things or IoT. Describe three such devices—start Googling.** (Note that modems, routers, switches, bridges, etc. are part of networking architecture that connect the Internet to Things; they are not generally considered IoT devices themselves although they are all examples of embedded devices.) An IoT device may have its own IP address but is not a general purpose computer like a server, PC, tablet, or smartphone. IoT devices are single purpose devices, many use Wi-Fi, others connect to the Internet by proxy (e.g. Bluetooth to your phone and use your phone's data connection), some IoT devices are even wearable.

🡺 (15 points) **Software Version**

Research the version of software you use, such as a game, photo editor, browser, or IDE. Usually, the version can be found under the Help menu, About…

* Software/Firmware description and version. What do the components of version number mean?
* In what way would that software be [forward compatible](https://en.wikipedia.org/wiki/Forward_compatibility)?
* What can you observe to indicate that the software is [backward compatible](https://en.wikipedia.org/wiki/Backward_compatibility)?
* Find the release notes for that software and include the
  + URL,
  + release date,
  + a description of one of the latest changes.
  + e.g   
    <https://support.office.com/en-us/article/release-notes-for-office-2016-for-mac-ed2da564-6d53-4542-9954-7e3209681a41>   
    Release Date: February 13, 2018   
    *Excel – Precision selecting: Ever selected too many cells or the wrong ones? You can now deselect extraneous cells without having to start over.*

Your operating system probably keeps its version up to date as does your anti-virus and malware protection utility. It is a good idea to check your other software and firmware to ensure you are at the most current, i.e. *secure*, level. **Have you checked that your router’s firmware is up to date? Your router can be a firewall against intrusion from the Internet but only if its firmware has been patched to plug security holes.**