APIs

Application Programming Interface

- Få adgang til verden i dine programmer!

JSON

```
var jsonFile;
var menu = [ ];
var element;
I preload:
        jsonFile = loadJSON('https://www.linkToJsonFile');

For at tilgå elementer skal man finde den præcise sti:
        menu = jsonFile.menu;
        element = menu[0];
        //eller
        element = jsonFile.menu[0];
```

JSON

Eller kald en funktione efter load!

var myData;

Når filen skal loades:

  loadJSON('https://www.*linkToJsonFile*', outputData);   //outputData er en funktion!

function outputData(data) {   //"data" indeholder den loadede data

  myData = data[0].element[0];   //"data" kan være et array eller bare en variabel

}

try and catch

```
try{
    //"prøv at gøre det her"
    loadJSON(_);                //typisk til at loade eksterne filer (Image,Strings…)



} catch (error){               //parameter, med beskrivelsen af den fundne error
    //"hvis det ikke lykkedes gør det her"
    console.error(error);       //bruges til at rette op på fejlen eller meddele fejlen
}
```

Winnie's Code

Sketch:
https://github.com/AUAP/AP2018/blob/master/class09/sketch09/sketch09.js

Query:https://www.googleapis.com/customsearch/v1?key=AIzaSyBHqJrX9-zJCB98n7ojkTF-fphE2I1kSMc&cx=017886355122972665858:tkdtcg3lbas&imgSize=small&q=warhol+flowers

Eksperimentér med API!

Kig på Winnie's sample code

- Opret jer og brug jeres egne API-keys (https://github.com/AUAP/AP2018/blob/master/class09/class09.md)

- Brug Winnies kode som udgangspunkt (https://github.com/AUAP/AP2018/blob/master/class09/sketch09/sketch09.js)

- Prøv at ændre nogle parametre (https://developers.google.com/custom-search/json-api/v1/reference/cse/list#parameters)

- Prøv at se hvilken anden data der kan hentes

Eksperimentér med andre API'er

- Vejret! https://openweathermap.org/api

- Sociale Medier! https://www.instagram.com/developer/

- Space! http://open-notify.org/

- Aarhus! https://www.odaa.dk/

MiniEx7 - Discussion

Sæt jer sammen i grupper, der ikke er dem I ellers er i gruppe med.

Præsenter jeres miniEx fra før påske for hinanden.

- Forklar jeres vision.

- Vær så præcis som mulig med hvorfor I bruger lige præcis den syntax det sted igennem koden.

- Giv gerne feedback og forslag til hinanden.

MiniEx8

First, take a deep breath. This mini exercise may require sometimes to do it. This is a **group mini exercise**. Form a group of 2 (max 3) based on your study group (best- **different from last time**).

Design a program that utilizes at least one web API (think about what you want to say conceptually)

    Source for a Web API

    Understand what are the **available data**: the data file format and API specification

    Decide which **data fields you want to choose to explore**

    Utilize the web API and the corresponding data in your suggested program

    Please reserve more time if you are getting data from other unfamiliar platforms, as the registration process can take a long time to do so.

Upload your program to each individual Github account under a folder called **mini_ex8**.

Create a **readme file together** (README.md) and upload to the same mini_ex8 directory

Provide peer-feedback to 2 of your classmates on their works by creating "issues" on his/her github corresponding repository. Write with the issue title "Feedback on mini_ex(?) by (YOUR FULL NAME)"

Readme

Who are you collaborating with?

A screenshot of your program

A title of your program

A URL link to your program and run on a browser

What is the program about? which API have you used and why?

(individual)Can you **describe and reflect your process of making this mini exercise** in terms of acquiring, processing, using and representing data? **How much do you understand** this provided data? How do platform providers sort the data and give you the selected data?

(individual)Try to **formulate a question in relation to web APIs** or querying processes that you want to investigate further when you have more time.