

ITI0205: Veebirakendused

# 08. HTML5 APId

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# Loengu sisu

- HTML5 APId
- JSON andmeformaad
- Küsimused 2. praktikumitöö kohta

**HTML APIs are a collection of JS libraries which can be used directly in HTML files without incorporating any customize JavaScript code**

<https://medium.com/the-ui-girl/html-apis-in-depth-78f0abc918c8>

# Example Uses

- **Integration with other services:** payments, credentials, offline mode ...
- **Input:** Touch, speech recognition ...
- **Camera & Microphone:** audio and video capture, recording, shape detection ...
- **Native Behaviors:** push notifications, permissions, task scheduling ...
- **Surroundings:** NFC, bluetooth, ambient light ...
- **Device Status:** Network status, battery status ...
- **Location and Position:** Geolocation, device motion ...
- **Screen and Output:** Fullscreen, VR, screen orientation ...

<https://whatwebcando.today/>

Complete List: <https://developer.mozilla.org/en-US/docs/Web/API>

See also: <https://caniuse.com/>

# Example: Local Storage (part of Web Storage API)

- Data is never transferred to the server.
- Stores data with no expiration date, and gets cleared only through JavaScript, or clearing the Browser cache.
- Storage limit 5..10 MB
- Data only accessible via Javascript

**JSON (JavaScript Object Notation)** is a set of text formatting rules for storing and transferring data in a machine and human readable way. It looks a lot like the object literal syntax of JavaScript, and it is from there JSON originates.

# Douglas Crockford.

*Esimene JSON formaadi kirjeldus*



```
{
  "firstName": "John",
  "lastName": "Smith",
  "isAlive": true,
  "car": null,
  "age": 30,
  "address": {
    "streetAddress": "21 2nd Street",
    "city": "New York",
    "state": "NY",
    "postalCode": "10021-3100"
  },
  "phoneNumbers": [
    {
      "type": "home",
      "number": "212 555-1234"
    },
    {
      "type": "office",
      "number": "646 555-4567"
    }
  ],
  "children": [],
  "spouse": null
}
```



# Methods

- `JSON.stringify()` - converts a JavaScript object or value to a JSON string
- `JSON.parse()` - parses a JSON string, constructing the JavaScript value or object described by the string.

# Küsimused ja vastused

**Tänan!**

# Materjale ja viiteid

- How to Use JavaScript Object Notation (JSON) for HTML5 and CSS3 Programming <https://www.dummies.com/web-design-development/javascript/how-to-use-javascript-object-notation-json-for-html5-and-css3-programming/>
- HTML APIs in Depth <https://medium.com/the-ui-girl/html-apis-in-depth-78f0abc918c8>
- Speech API Demonstration: <https://www.google.com/intl/en/chrome/demos/speech.html>
- An overview of the device integration HTML5 APIs <https://whatwebcando.today/>
- MDN List of Web APIs: <https://developer.mozilla.org/en-US/docs/Web/API>
- Localstorage Guide <https://www.html5dog.com/guides/javascript/advanced/localstorage/>
- Short JSON Description: