WURFL Cloud

WURFL (Wireless Universal Resource File) is a product that gives mapping between a user-agent string and the complete profile that describes a device's capabilities.

The main reason for this technology to come into existence was because the first generation of mobile devices had no DOM, little or no CSS, JavaScript, etc. It did not possess the ability to reflow the web content. Early browsers were so limited that the maximum HTML sizes they could handle was under 10KB. If a particular page was incompatible with the device's capabilities then either the browser or the entire device would crash. This led to the birth of device detection technology.

If a business has web presence then it has to have a fine-tuned control over the user experience and the ability to map this business requirements to the interactions that people have with the website.

HTTP headers that browser send as a part of every request are examined and are sufficient to identify the browser and hence its properties. The most important HTTP header used for this purpose is the user-agent header.

Give the functionality and the purpose of this technology we can state the following real world applications:

- Identify the type of devices a content is being accessed and offer different versions of the content thus serve different User Experiences to users. For example, any social media application such as Instagram, Facebook, WhatsApp, etc. all these applications have different content to display based on the device it is being accessed from.
- Every time a user logs in from a different device, the type of the device has to be identified and based on this the respective content has to be displayed.
- So say if the same Facebook account is accessed from both a PC and a smartphone. Then the service providers should also enable the ad server to send advertising campaigns to specific devices based on screen size, operating system, phone brand, phone model, or any of the device characteristic that the device database tracks.

These are few of the important real world application of device detection technology.