

Web Apps

Prof. Emanuele Panizzi

An application is a computer program.

- desktop app:
 - runs on a desktop computer, directly on the operating system;
 - must be installed;
 - may need an internet connection
- mobile app:
 - runs on a smartphone, tablet, or watch, directly in a mobile operating system;
 - must be installed;
 - may need an internet connection
 - two types:
 - native app: explicitly written for a mobile operating system, in a 'native' language like Swift, Java, Kotlin...
 - hybrid app: written using web technologies and cross-compiled for different operating systems

An application is a computer program.

- web app:
 - runs in a web browser;
 - can be found while navigating on the web
 - needs internet connection
 - at each user interaction, a new webpage is loaded containing the updated user interface
- Single Page Application:
 - a web app that interacts with the user by dynamically rewriting the current web page with new data from the web server
- progressive web app:
 - a web app that a user can install by adding it to the home screen and is accessible offline or on low-quality networks

Application software that runs in a web browser.

Some code runs in the browser:

- local logic
- User Interface (UI)

Some code runs on a server:

- application logic
- database management system

- Front-end:
 - presentation layer (user interface); browser
 - client
 - use of markup and web languages (HTML, CSS, Javascript,...) and Asynchronous requests (AJAX)
- Back-end:
 - data access layer (API, storage, DBMS)
 - server
 - use of scripting languages (PHP, Python...) or compiled languages (C#, Java, Go,...)

Communication of data and operations is needed between the client (browser) and the server.

“Web Services” through API (Application Programming Interface)

The Web App may use more services from different servers.

- https://en.wikipedia.org/wiki/Mobile_app
- https://en.wikipedia.org/wiki/Web_application
- https://en.wikipedia.org/wiki/Single-page_application
- https://en.wikipedia.org/wiki/Progressive_web_app
- https://en.wikipedia.org/wiki/Frontend_and_backend