



# Technical requirements: Guidelines to frontend development

## Module Bundler

- Webpack 4 (with scss, babel, fonts and images management plugins, and chunksplitting configuration)
- Npm (or yarn)

## CSS Styling

1. SCSS
2. Naming convention BEM (Block Element Modifier), we can use it “flexibly” and “pragmatically” when dom nesting is high
3. Divide scss sheets in a reasonable scaffolding for:
  - a. Layouts (pages or component exceptions in pages)
  - b. Components
  - c. Abstracts (variables, mixings, ...)
  - d. Utilities (usefull classes to extend or re-use)
4. Split directives in media query blocks:
  - a. First: common sets for every media query (or mobile based)
  - b. Then: media queries nested directives



## DOM

1. Use BEM paradigm for classes
2. Use ID (never repeating them obviously) or data attributes for javascript related stuffs
3. If using Bootstrap or similar do not use styling classes but exclusively semantic classes: describe component entities, not the way user will see it.  
E.g.: no "align-right", "border-primary", "text-black-50", "float-sm-left", ....  
E.g.: yes: "panel", "navbar", "pagination", ...
4. If you want to use Bootstrap styling utilities extend them in the scss for that component entity ( (e.g: `.mycomp__column { @extend .border-primary; }`)
5. Grid classes are allowed also in html, so you can use "row", "col-md-6" or similar in html. Obviously you can extend those classes in your scss (e.g: `.mycomp__column { @extend .col-md-6 }`)

## Javascript

1. Async defer loading in head
2. Chunk splitting with dynamic imports (webpack feature)
3. If usefull and possible: load dynamically modules through user interaction (not mandatory, don't get mad with this)

## Images

1. Use picture srcset to set correct media size to media queries
2. Use picture srcset to set webp formats



3. Use a lazyload script

## Service workers

1. Create a Service worker
2. Create a manifest for images and assets caching

## Wip Starter Kit

Begin development asking Wip Italia the *webpack-splitting-starter* repository.

It's a starting point Wip Italia can give you that structures scaffolding, constructors and components logics, webpack configuration in chunk splitting and service worker setup.