

Design and Implement a Micro FrontEnd Web Application

Your assignment is to design and implement a web application consisting of several sub-applications to be loaded into the main application at runtime.

Each application should be in a separate project and should have its own package.json, dependencies and a dedicated build process for creating its bundle file.

Main application description

- Create a single page to cover 100% of the screen dimension and divide it into 4 equal sections
- Declare configuration variable to have each sub application details in the following format:

```
[
  {
    id: "grid"
    url: "http://[SERVER_URL]/[BUNDLE_NAME].js"
  },
  {
    id: "text"
    url: "http://[SERVER_URL]/[BUNDLE_NAME].js"
  },
  {
    id: "image"
    url: "http://[SERVER_URL]/[BUNDLE_NAME].js"
  },
  {
    id: "list"
    url: "http://[SERVER_URL]/[BUNDLE_NAME].js"
  }
]
```

- Load each sub application into its corresponding section
- Make sure each section has its own scroll policy

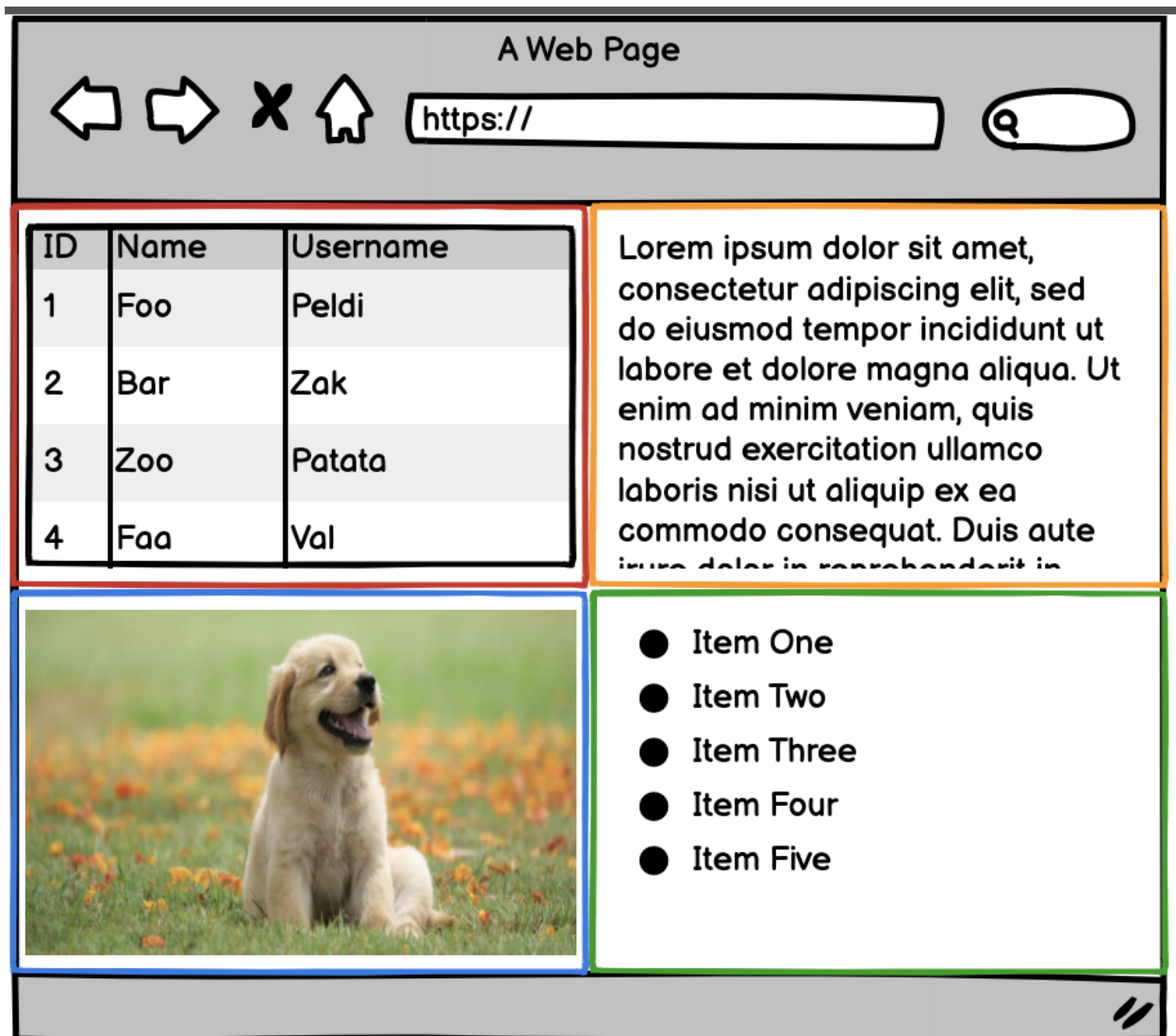
Sub applications

1. Grid:

Fetch data from <https://jsonplaceholder.typicode.com/users> and display in a table with [ID, Name, Username] columns

2. Simple text:
Display a simple long text
3. Image:
Load and show a image expended on the entire application dimension
4. List:
Create a simple unordered list to show values, the values must be passed down from the main application

Final suggested result



General requirements

- Choose whatever JS framework you like, Angular, React, jQuery, Vanilla etc. for both main and sub applications
- You can use any additional 3rd party JS tools / libraries to assist you completing the assignment
- The main application should load the sub applications at **runtime**, NOT at compile time
- You should **NOT** use **iframes**
- There is no need to deploy the application, everything can work locally
- Do not use Webpack 5 Module Federation

Bonus

- Do not use any framework for the Micro FrontEnd architecture (like [single-spa](#), or [webpack module federation](#)) - huge advantage
- Add versioning support for sub applications, each declaration should be look like:

```
{  
    id: "grid"  
    version: "1.0.0"  
    url: "http://[SERVER_URL]/[BUNDLE_NAME].js"  
}
```

Then find a way to build each application so it could be loaded with the specified

- Figure out a way to manage runtimes for compatibility
- Make each sub application also as a standalone application so it can be loaded directly into the browser
- We like pretty applications, use CSS and much as you need to make it more impressive
- Quality is important for us, add some unit to cover the code