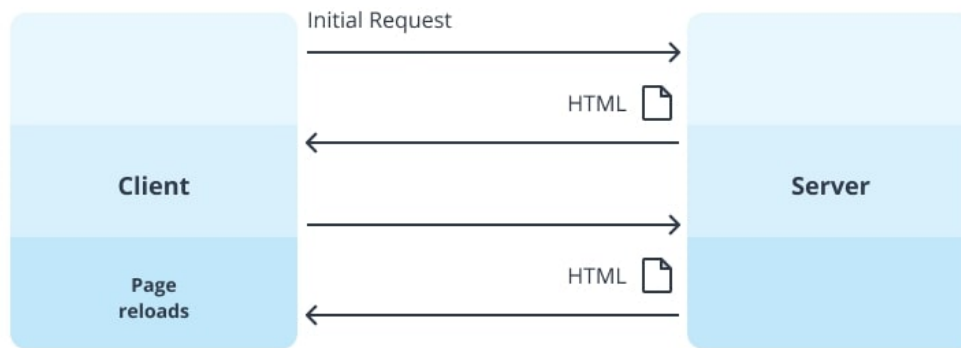# MPA v/s SPA

1. Multi Page Application(MPA)

A multi-page application is a website made up of many different pages.

When we interact with the site, new pages are downloaded from the server.

Examples of MPA: blogs, ecommerce sites, and online newspapers and magazines, Wikipedia.

When user clicks on any link, or submits any data, every time new page is loaded from server.

Multi-page app lifecycle

Benefits of MPA

Multi-page applications is the best choice for large apps such as e-commerce sites

In Web search engines, MPAs rank highly in searches

Google Analytics works better with MPAs, to analyze customer journey– and once again, helping a site rank highly in searches.

MPAs have better compatibility with old browsers than SPAs, and don't need to require JavaScript.

Limitations of MPA

MPAs are typically slower than SPAs. Interruptions due to page loads make less smooth user experience.

Development and testing are harder for MPAs, because their frontend and backend are more tightly coupled.

MPAs are also hard to maintain, because each page must be separately modified.
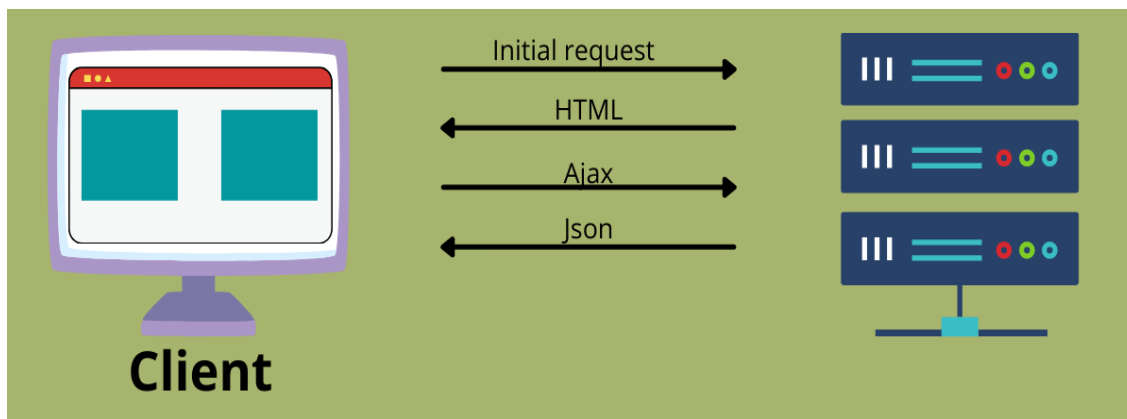
2. Single Page Application (SPA)

A web application that works within a web browser and loads just a single document.

It does not need page reloading during its usage, and most of its content remains the same while only some of it needs updating.
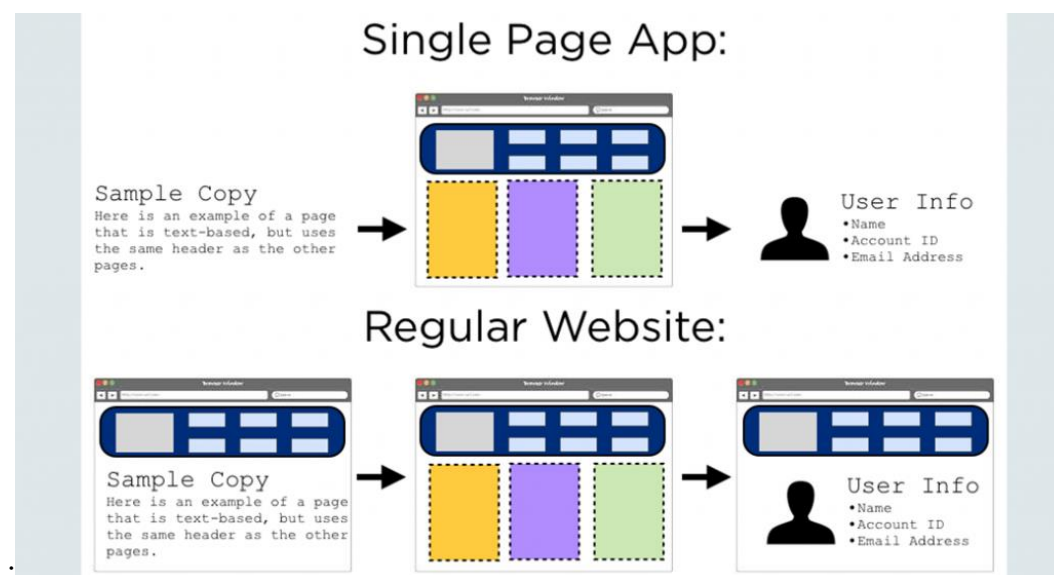
When the content needs to be updated, the SPA does it through JavaScript APIs.

Users can view a website without loading the entire new page and data from the server.

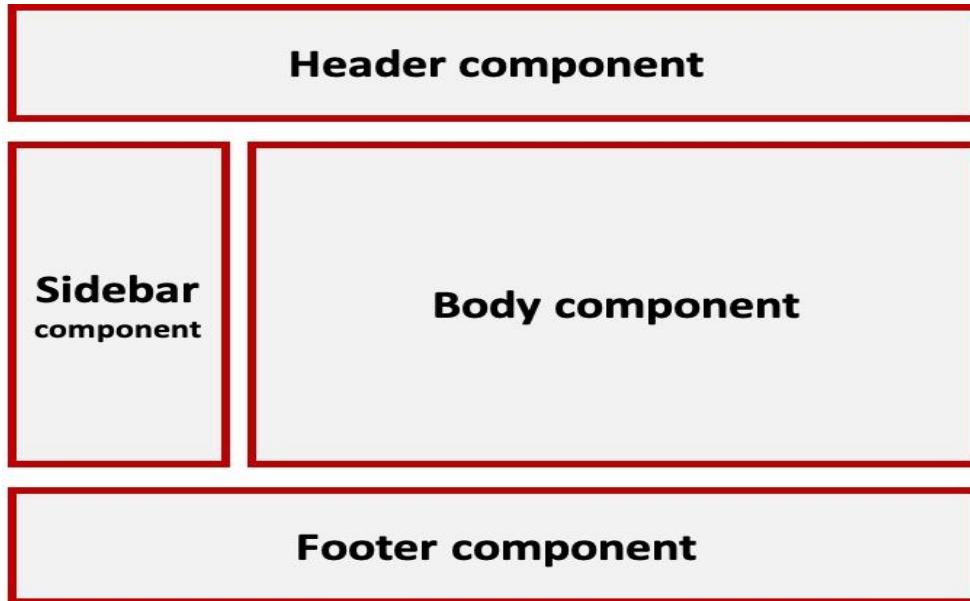Examples of SPA: Gmail, Facebook, Twitter, Google Maps, etc

Example :

:

3. SPA in React

Components are the key features of React. Whole idea of SPA is based on React Components to load dynamically.

Complex application is divided in simple reusable parts called components.

These reusable parts can be merged directly or can be updated using routing to fulfil the purpose of SPA.