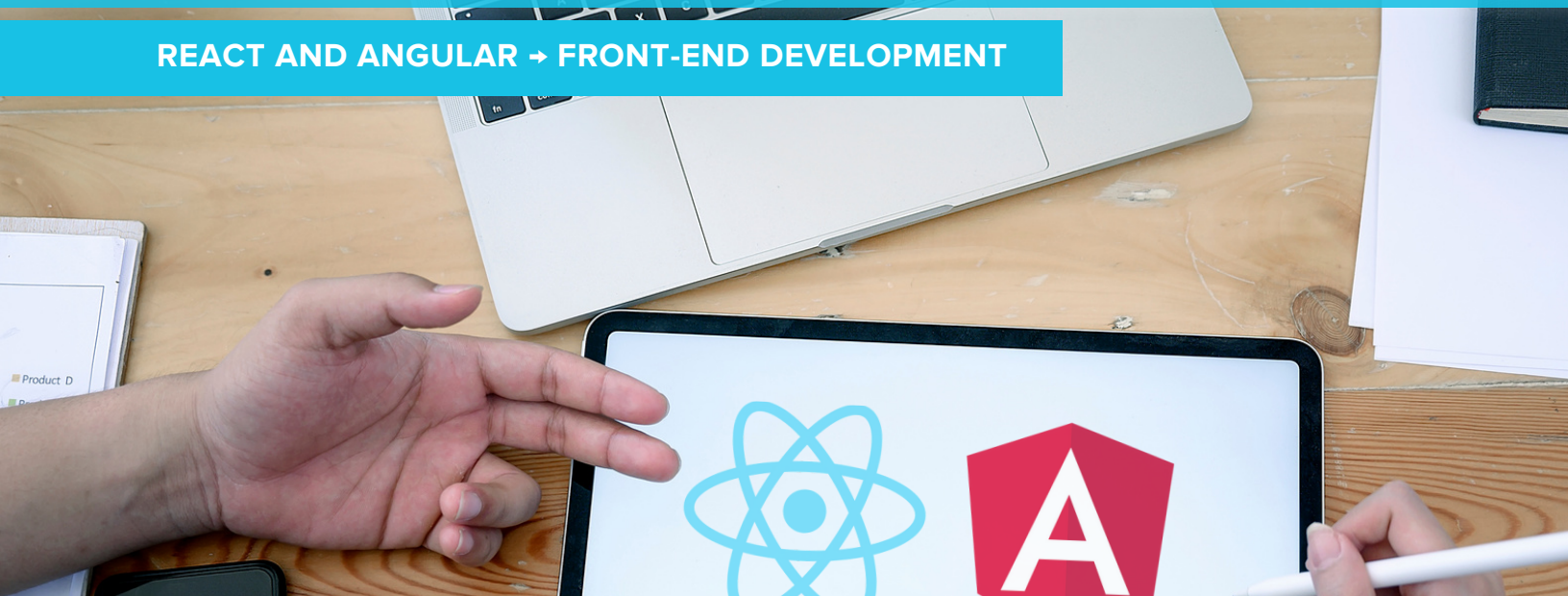


REACT OR ANGULAR: MAKING THE MOST OF YOUR FRONT-END MODERNIZATION PROJECT

From Coding to CI/CD To Customers — An End-To-End Partnership with GAP Makes Sense for Your Front-End Project

REACT AND ANGULAR → FRONT-END DEVELOPMENT



If you are asking whether React or Angular is the better option for your front-end development project, then it is like asking whether apples or oranges are better, or chocolate or strawberry ice cream. You can pick whatever analogy you choose, but generally, it's the wrong question to ask.

A lot of the time, it is more a case of noting the goals of the project and the developer's personal preference. Both of these JavaScript tools are certainly popular. React.js was cited by 44% of developers polled in [Stack Overflow's 2022 survey](#), while Angular had 23% of respondents using it, making it the fifth most popular. This is not surprising in and of itself; JavaScript remains the standard for web development, with continual iterations and improvements through the likes of TypeScript and ECMAScript 6 (ES6), and it is increasingly popular for full-stack development. But there are some instances where React and Angular can be separated — and where [a trusted partner](#) with deep JavaScript culture and knowledge can help transform your front-end project from functional to fantastic.

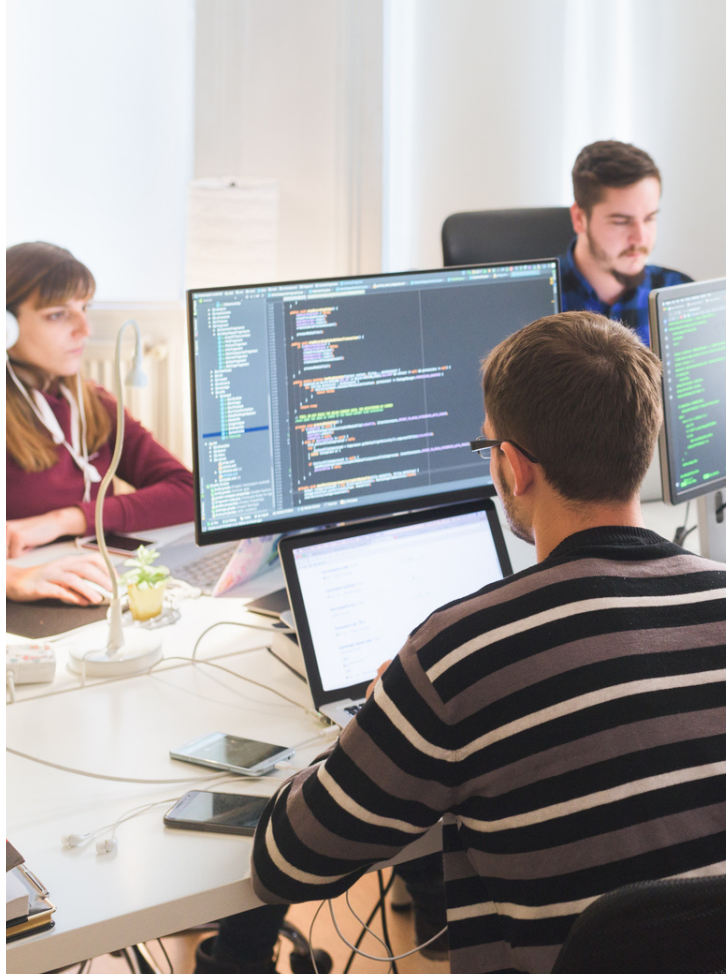
Take micro-frontends as an example. Modern architecture practice enabled microservices in the back-end, comprising a collection of services which are independently deployable, loosely coupled, and organized around business capabilities. For front-end development, it is a similar concept; micro-frontends allow teams to split product responsibilities where different sub-modules can be fully implemented separately.

This means you can split modules inside a page — for example, the shopping cart can be built using React, with the rest of the page in Angular. The benefits of micro-frontend migration are similar to that of migrating to the cloud; flexibility and scalability, speed and more freedom to innovate.

Modernizing your front-end with .NET, Angular or React among others, means you can utilize the likes of microservices, as well as serverless, and reap the benefits of those adjacent technologies with these frameworks in place. This is again where scalability, as well as availability of applications, comes in — which is very important as the business grows. How many developers can work on the same project and features at the same time? It helps too that React in particular is not only supported by a big company, but also by a vibrant community of developers. The two frameworks work well together because of their communities. Vue.js and Laravel are another example of this.

Of course, there are pitfalls to avoid when taking each of these on — and it is worth briefly outlining here key differences between React as a fully consolidated library and Angular as a full framework. React's greater flexibility can lead to complications down the line, so senior developers may be needed to help in the architecture and structure of the project, in terms of scalability, folder structure and services. While Angular is inherently more structured, and through TypeScript, promises better tooling and cleaner code — being easier to understand for a developer versed in object-oriented programming — it offers a hard learning curve compared with React, and there are long-standing complaints among the Angular community that much of the development time is spent on repetitive activities.

Working with GAP for React and Angular projects means you get significant technical expertise in JavaScript and all of the ecosystems related to it — at least two thirds of GAP's engineers have worked with JS at some point. There is also a React.js, Angular, and Node.js Center of Excellence to support and guide all JavaScript developers. So the technical knowledge and foundations are in place, as well as taking a project through the end-to-end process, from continuous integration and delivery (CI/CD) to QA testing — but the extra benefit is in scoping your project through an understanding of what your business or product means to the customer base.



Here are a couple of examples:

- One specific project GAP has recently worked on is replacing a client's products that had been developed in ColdFusion, Adobe's web development application server, to React and Python. [According to W3Techs](#), ColdFusion is only used in 0.3% of server-side programming languages for websites, compared with PHP at 77.7%. Migrating to Python and React is a good step in terms of modernizing and future-proofing, yet it is a big challenge; not just in terms of the architecture or code, but also in understanding why this product is important for the client and the service it provides to customers.

- Another example is of GAP working with a client whose legacy application had been built on an old version of ASP.NET for more than two decades. The problem for the client was the frontend and backend had been integrated into the same solution, meaning there was no flexibility to scale and reuse the code. The solution was to migrate various modules to React and Angular, and the backend (or service layer), to React. One difficulty arose in using REST APIs — where the server transfers the current state of a resource in a standardized representation — in .NET, as some legacy modules needed to be supported and maintained while migrating the more important modules to Angular or React. Going this route also meant tools such as Cypress could be used for end-to-end testing, as well as easy integration with Azure pipelines.

Migrating your front-end applications to Angular or React is not just about modernizing legacy code, but it also requires elements of future-proofing, with a need to understand the future technological landscape and where your organization fits into it. Letting a partner like GAP take control of your important project makes sense from both a technical and business perspective.

To find out more, please visit [WeAreGAP.com](https://www.WeAreGAP.com) 



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