

Enhance Web-Components in order to increase security and maintainability

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Abstract. Today's development of client-side web applications is based on one of the JavaScript-frameworks, such as Angular or React. The excessive dependencies that arise in the ecosystem from the Node-Package-Manager increase the security risk and the dependency of your own web application on third-party packages. Moreover, the frameworkless approach proposes a renaissance of classic web development, because it strives to avoid external dependencies as far as possible and to fall back on the standards. Whether the implementation achieves maintainability and security of frameworks is questionable. Therefore, it makes sense to research which core concepts of the frameworks meet the requirements for maintainability and security and how these are implemented. The novelty is that the concepts to be explored are moved to a standard in order to ensure the developer efficiency, security, performance and maintainability in the long term. This allows existing approaches to focus on other essential features.

Keywords: Web application modelling and engineering · developer efficiency · concepts and patterns · standards