# Abstract

In modern frontend development, most developers use frameworks like Angular, React or Vue. On a basic level, all of these frameworks use so called web components: Custom bundles of html, CSS and Typescript which are each represented by their own custom html tag. The idea is to create components for UI elements or functionalities of a website that are frequently used throughout a project (i.e., Product cards in a webshop) in order to cut down the amount of code needed by packaging an entire element, that can consist of any number of lines of code into a single html tag.

However, since all of these frameworks use components as their basic building blocks, there must be a way to build framework agnostic web components that can then be used by any framework without the need for considerable amounts of extra code. The subject of this Thesis is therefore to answer the question of whether this is possible and to shed some light on how this universal compatibility is achieved.

As an example, StencilJS will be used to create web components and the frameworks Angular, React and Vue will be used to demonstrate the universal compatibility.

Apart from small example pages that contain Components created in StencilJs, a part of this Thesis is also going to be a real-world project; A tablet app for Therapists that displays essential patient data and helps with managing patients.

# Lessons learned

never use stencil