**Week 9**

**9.1 Custom Hooks**

* With class based components, you don’t need hooks.
* In lifecycle events, we run some code when the component gets mounted or demounts.
* When useEffect has a returning function and the dependency object changes then the clean up happens first (the code in the return block runs of the previous useEffect) and then the mounting code runs of the current useEffect.
* So now, we have one code that runs when the component mounts and one code when the code demounts.
* A hook that fetches the data from the backend and stores it in a single variable.
* Websockets are the popular way to refresh data from the backend.
* If the dependency (n) changes, then you need to stop the old setInterval.
* SWR and React Query. If you’re not using any react state management library then you use SWR and React Query.

**9.2 Typescript**

* JS is a loosely typed and interpreted language.
* Typescript gets transpiled down to JavaScript. You never run Typescript code. Always JS code is run.
* target in tsconfig.json file lets you decide the version of EcmaScript to which the Typescript code would be compiled to.
* The dist folder and the node modules are not committed to github.
* Zod is for runtime checks, TS for compile time checks.
* Interface can help define objects and classes.
* Interface can be used to implement classes, types cannot be used. Class implements an interface can be thought of as inheriting. But, it is not. Interface is just for safety check of the whole class. The JS file does not have interface.
* Types lets you define custom types, like a variable can be both number and string. Types also lets you do intersection.

**9.3 Generics, Enums, Imports & Exports**

* Enum means enumeration which means we could iterate over some values.
* Generics are like templates in C++. Think of them as creating multiple generics of your function.
* To prevent the problem of mixed bag, you should explicitly give the type when calling the function.
* npm install express @types/express
* When you export as default, you don’t need to import as destructured. See the slides for more detailed info. [Dailycode (100xdevs.com)](https://projects.100xdevs.com/tracks/6SbPPXGkG8QKFOTW9BmL/ts-11)