Introduk	rtion /	Baggrund	Hvad kan du idag og hvad håber du at		
Introduk	KCIOTI	Forventningsafstemning	kunne efter kursus? Kendskab til andre programmeringsprog? Erfaring med frontend/backend?		
Bogmær	rker	Official docs (typescriptlang.org) Typescript Deep Dive			
		Jack Herrington Codeacademy			
		Dynamisk typed Interpreted			
Hvad er J	Javascript	Funktionelt- og objektorienteret Event-driven	ES2009/ES5		
		Bundet af bagudkompatibilitet	ES2015/ES6 ES2016/ES7 ES8/ES9/ES10		
			ESNext alt javascript er typescript		
Hvad er 1	Typescript	Superset af javascript Strongly typed	man kan opte-out af type checks Den kode der afvikles er javascript		
		Transpiled (compiled) "Normalisere" kode	Ingen run-time validering af typer Support på tværs af browsere		
		Tillid	Support for forskellige module systemer Compile time shock afslerer feil burtigere		
Hvorfor T	Гуреscript	Hurtige feedback loops	Compile-time check afslører fejl hurtigere end run-time check Feedback direkte i editor "fail fast"		
		Mindre validering Eliminerer stor gruppe unit tests Future javascript now			
			NPM Node.js		
		Opsætning	Yarn VSCode Code sandbox		
		Typescript - online Øvelse: Første typescript projekt	Typescript playground tsc		
Typescrip	pt - hvordan?		Default opsætning	watchMode -	-watch -w
		tsconfig.json		module	module system - covered later
			Vigtige indstillinger	allowJS and checkJS	DOM API f.eks. Gradvis overgang fra JS til TS
		Øvelse: tscinit		jsx og andre React-options	Kør create-react-app med typescript
Equality		===	type coercion		
		https://javascript.plainenglish.io/weird- parts-of-javascript-equality-alccel00ad45 if-statements			
Kontrol-	og loopstrukturer	ternary-operator AND OR			
		Nullish coalescing ?? Guard clauses	0 2 vs. 0 ?? 2		
Objekter	·	Objekter Nestede objekter JSON			
		Navngivne funktioner Anonyme funktioner			
Funktion	ner	Arrow funktioner Metoder Hoisting			
			map reduce	create new array by transforming or mapping over current one sum all even numbers	
		Array funktioner	find	Return first element that matches Return an array of all elements maching	
Typescript		Spread syntax rest parameters	forEach	Generic iterator - only use if none of the above matches	
Next-gen	n javascript/typescript		https://developer.mozilla.org/en-US/docs/ Web/JavaScript/Reference/Operators/ Destructuring_assignment array destructuring		
		Destructuring assignment	object destructuring with default value renaming a property		
		async/await	nested destructuring Combined Array and Object Destructuring		
			string		
		primitive typer	tuple bemærk casing		
		Object types	type alias interface		
		Nested types Combining types	union intersection	a b a&b	
		Function types	interface any	Declares inputs and outputs of a black box Can store any value without error	
				disables all type checking Can store any value without error (like any)	let userInput: unknown;
Skrive ty	₁ ·	special types	unknown	Cannot store unknown variable into known type such as string In an intersection everything absorbs	let userName: string; userInput = 5; userInput = 'Max'; userName = userInput; // error
			void	unknown In a union an unknown absorbs everything when a function returns undefined	
			never	when a function never produces a return value For example when an error is being thrown that crashes the script or returns control to a catch clause if enclosed in try/catch	
		Mapped Object Types	[Property in ListOfProperties]: boolean		
		type alias vs interface	interface	intersection inheritance	cannot extend parent with conflicting chil
			Advice: for complex types start with interfaces unless you need special featuof type alias	https://betterprogramming.pub/differences- ures between-type-aliases-and-interfaces-in- typescript-4-6-6489246d4e48	
Læse typ	per	Declaration files	d.ts Kan kun indeholde typer Ingen implementering		
		Udforsk DefinitelyTyped	Constructor		
			Access modifiers (private/public)	class Department { private employees: string[] = [];	
		Klasser		constructor(private id: string, public name: string;) { }	
Objektor	rienteret Typescript		Shorthand initialization Getters	Subtopic 2	
		Interfaces Ved runtime or din kede javascript	Setters		
Runtime		Ved runtime er din kode javascript Ingen type checks	Du kan ikke skrive if (abc typeof SomeType) { }	https://www.youtube.com/watch?v=rY_ YafSHock	
		Bruger input overholder ikke nødvendigvis typer	Schema validation Splitte kode op i logiske dele	ZOD	
		Motivation	Tree shaking Typescript namespaces		
Modulæi	r kode	Strategier	CommonJS ES modules Libraries distribueres typisk "bygget"	javascript med type declarations	
		Distribution	I visse tilfælde distribueres libraries som ES modules Best-practice - distribuere typescript libraries	Kræver transpiling hvis dit projekt er CommonJS https://tsdx.io/	
Generics	<i></i>	Functions with generic type variables Generic interfaces			
		Generic classes Generic constraints			