**Typescript**

typescript:its just an extension to js

static typed extension

js-->dynamically typed-->variable type are determined at runtime

in js-->we can face error at runtime

in typescript-->we will get error at compile time rather than runtime

seeing the error earlier is really efficient

typescript-->can't be run directly in browser

**Interface**

by default , all properties in interface are treated mandatory to be included while creating object

now ,we want some properties to be optional also

for that we can use name?:string inside interface

just add '?' after name of property and before colon

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Union

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Datatypes:void,unknown,never,any

void is set of undefined and null

any-->avoid using it

if we can't fix error somewhere->we can write any but this is not good for our application

never-->this is used in library

if fxn returning never-->it can not have a reachable end point-->can not be executed to the end

**Classes in typescript**

with 'this' keywork we can access all properties inside the class

private-->we can use it only inside the class

protected is allowed inside class and its children

public,protected,private keywords are in typescript but not in js

creating constant inside a class->we need readonly keyword

static properties->accessible only on class itself,not accessible to instances

**Generics in combination with interfaces:**

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**Interaction with Dom**

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**Writing functions in ts**

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