TYPESCRIPT DOCUMENTATION

Installing typescript

You can install **typescript** in two different ways.

- Via Npm
- or through Visual studio plugin

Installing Typescript through NPM and running a typescript file

```
1. Download and install node.js
2. open cmd/terminal
3. enter the following
```

```
    > npm install -g typescript
```

```
4. create a new file with '.ts' extension
5. open the terminal/cmd and type
```

```
    > tsc <nameofthefile>.ts
```

Typescript

What is typescript?

Typescript is a syntatically typed javascript.

Typescript basics

Data Types

There are 3 data types

- number
- string
- boolean

```
var num: number = 25;
var aName: string = "renz";
var isAlive: boolean = true;
console.log(num + ' ' + name + ' ' + isAlive); // 25 renz
 true
```

You can declare a variable with **any** type of data in it.

```
var someData1: any = 25;
var someData2: any = true;
var someData3: any = "bazingga";

console.log(someData1 + ' ' + someData1 + ' ' +someData1)
; // 25 true bazingga
```

Constant variables

You can declare a constant variable in typescript.

```
const num1 = 25;
console.log(num1) // 25
num1 = 30; // false
```

Functions

You can declare a function that returns nothing (void)

```
function theresNothingHere(): void {
    console.log("Hodor");
}
console.log(theresNothingHere()); // Hodor
```

You can also declare functions that returns a certain type of data

```
function returnsNumbers(num1: number, num2: number): numb
er {
    return num1 + num2;
}

function returnFullName(fname: string, lname: string): st
ring {
    return fname + ' ' + lname;
```

```
}
console.log(returnsNumbers(25 , 25)); // 50
console.log(returnFullName('Renz', 'Pulvira')); // Renz P
ulvira
```

Interfaces

```
/*
*
*   When you wan't to create a complex data type
*   Using Interface is a good way to create a variable
*   with a property inside of it.
*
*/


// This variable has certain properties
interface dog {
    sound: string;
    theName: string;
    age: number;
}

// Defining the values of properties with the 'dog' inter
face
let dogProp:dog = {
    sound: "Bark!",
```

```
    theName: "Marco",
    age: 4
};

// outputting the declared variables
console.log(dogProp.sound);
console.log(dogProp.theName);
console.log(dogProp.age);
```