**EXERCISE FOUR TYPESCRIPT**

TypeScript is a superset of JavaScript ES6 that makes ES6/JavaScript strongly typed. Create a file called tsdemos.ts to write the code.

1. Open **app-component.ts**.
2. Add this import statement at the top. Note: Do not add the ".ts" extension.

**import './tsdemos'**

1. Save the file.
2. In tsdemos.ts, write some TypeScript. Set a variable called age and set it to a value with a data type. Print it out so you know it works. Save changes as you go.
3. Start the development server and look at the file in your browser – look at the console.
4. Now we will deliberately introduce a type error. In tsdemos.ts initialize the age variable with the wrong data type so you can see what the compilation error looks like.
5. Save the file. Compile the code and look at the error.
6. Add a function like that takes name with its data type and age with its data type, and prints both. Don’t worry about the function’s return value for now. Call the function.
7. Save changes and view results.
8. In tsdemos.ts, call the printPerson function using incorrect parameter types.
9. Save and view the error. Fix the issue.
10. Add a function testing whether the age is over 21. It will take age; set the data type. It will return a Boolean. Use TypeScript data types. Run it to verify it works.
11. Create a class called Product with the properties title, price and id. The constructor will look like the following. Write a function called printDetails() that prints out the properties.

constructor (id: number){

this.id = id;

}

1. Next, create an object from the class. What do we need to pass in?

let p = new Product(123);

1. Set a product and price. Since the Product class uses the keyword this, we can publicly set them outside the object.
2. Now call the printDetails() function on the object.
3. Move all properties into the constructor and create the object again. Run the code.
4. Now, let’s make use of TypeScript generics to ensure that a function is pure (the data type that goes in also comes out).