1.4 Type Assertions

This section will guide you to:

* Create and run TypeScript code in your terminal
* Perform type assertions in TypeScript

This lab has two subsections, namely:

1.4.1 Writing a TypeScript program that performs type assertion

1.4.2 Executing the program and verifying how type assertion works

**Step 1.4.1:** Writing a TypeScript program that performs type assertion

Open your code editor and create a new file to type the code in

* *[Right click]* on the **File menu** of the code editor -> Select *New File*
* Enter the below code resolving the warning and errors due to compatibility-related issues
* *[Right click]* on the **File menu** of the code editor -> Select *Save as* -> Enter the filename (with**.ts** file extension) -> Click *Save*

let a1: any = '10';

let b1 = <number>a1;

let b2 = (b1 as number);

console.log(b1);

console.log('typeof b1:', typeof b1);

console.log(b2);

console.log('typeof b2:', typeof b2);

console.log('typeof a1:', typeof a1);

**Step 1.4.2:**  Executing the program and verifying how type assertions work

If TypeScript is not already installed, you’ll need to install it by running the command, ***npm install –g typescript*** from the terminal. Before you execute the program, check for syntactical corrections. If no errors are found, follow the steps mentioned below:

* Open the terminal
* Navigate to the directory where the code is stored
* Type the command *tsc [fileName.ts]* and press Enter
* The code will compile
* Type the command node [fileName.js] and press Enter
* The code will produce the following output

