1.6 Functions

This section will guide you to:

* Create and run TypeScript code in your terminal
* Define functions in TypeScript

This lab has two subsections, namely:

1.6.1 Writing a TypeScript program that defines functions in TypeScript

1.6.2 Executing the program and verifying how functions work

**Step 1.6.1:** Writing a TypeScript program that defines functions in TypeScript

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*

const sum = (a: number, b: number): number => a + b;

const c: number = sum(10, 20);

console.log('c =', c);

const square = n => n \* n;

console.log('square of 10:', square(10));

**Step 1.6.2:**  Executing the program and verifying how functions 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

