1.10 Classes

This section will guide you to:

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

This lab has two subsections, namely:

1.10.1 Writing a TypeScript program that defines classes in TypeScript

1.10.2 Executing the program and verifying how classes work

**Step 1.10.1:** Writing a TypeScript program that defines classes 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*

class Animal {

name: string;

constructor(name: string = 'Snowy') {

this.name = name;

}

speak() {

console.log(`${this.name} makes a noise.`);

}

}

class Dog extends Animal {

color: string;

constructor(name?: string, color: string = 'white') {

super(name);

this.color = color;

}

speak() {

super.speak();

console.log(this.name + ' barks.');

}

}

const a: Animal = new Animal('Tommy');

console.log('name:', a.name);

a.speak();

const d: Dog = new Dog();

console.log('name:', d.name);

d.speak();

**Step 1.10.2:**  Executing the program and verifying how classes 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

