# Exercise 1.1 – Create a Function

## Learning Outcomes

Upon completion of this exercise, you will be able to:

- Specify the key components of a function and be able to create a valid function using the Cicode Editor.

This exercise will create the basic structure to be used for the remainder of the course. Here, a simple function will be created that will eventually form a suite of actions capable of automating the TestCicode_HD1080 plant.

Clearly, such a set of tasks would not have a place in a 'real' plant, but in this instance, they serve a useful purpose in making visible the effects of the various techniques being demonstrated.

1. **Set the scope of the function.**
   i. In the **Cicode Editor**, open the **Training.ci** file and position the cursor below the previously entered function. Press **Enter** a couple of times to create a separation.
   ii. Type the key word **Public** and press **Enter**.

   In ***Scope*** (page 1), it was demonstrated that a function could be declared **Public** or **Private**. Private functions will be addressed later in the course.

2. **Create the function declaration.**
   i. Type **Function**, press **Enter** twice and then type **End**.

   In the section ***Declaration*** (page 1), it was made clear that the use of these two key words defined the formal beginning and end of the function. The function will currently look like this:

```
PUBLIC
FUNCTION

END
```

## Exercise - Create a Function (cont.)

3. **Give the function a name.**

   i. Position the cursor after the word function and type:

   ```
   Automate()
   ```

   ii. The function will now look like this:

   ```
   PUBLIC
   FUNCTION Automate()

   END
   ```

4. **Add a Statement**

   i. Position the cursor on the blank line between **Function** and **End**. Press the **Tab** key to indent the text.

   ii. Add the text:

   ```
   TT_100_PV = 30
   ```

   iii. The function will now look like this:

   ```
   PUBLIC
   FUNCTION Automate()
     TT_100_PV = 30
   END
   ```

5. **Save and compile the function to confirm it is correct.**

   i. Select the menu **File | Compile** to confirm the correct entry of the function details.