# Objectives

* This lab will help you become skilled at writing automated unit tests using the NUnit framework.
* Explain & demonstrate various NUnit custom attributes to identify tests.

Create a Unit Test Project using NUnit Framework for the following requirement. Click [here](https://cognizantonline.sharepoint.com/:u:/r/sites/GTP-Solutions/Gencsharepath/Shared%20Documents/Internship2020/FSE/DotNet/02%20-%20NUnit,%20C%23%204.5,%20ASP.Net%20Core/Handson/AccountsManagerLib.zip?csf=1&web=1&e=rtHrQD) to download the source project.

You are given a user account module called **AccountsManagerLib** using which an employee can login to the EMS portal using his/her credentials. If he/she provides valid login credentials, then the function should return the following message.

“Welcome <user\_id>!!!”

In case user provides invalid details, the function should return the following error message.

“Invalid user id/password”

If user doesn’t provide either userid or password, the function should throw an ArgumentException.

Valid Credentials are the following

|  |  |
| --- | --- |
| **User Id** | **Password** |
| user\_11 | secret@user11 |
| user\_22 | secret@user22 |

**Recommendations:**

Test Project Name:*<ClassLib\_Project>.Tests*

Test Class Name: *<SUT>Tests*

Test Method Name:  *UnitUnderTest\_Scenario\_ExpectedOutcome*

After writing the above test methods, run the tests and assert the results with that of the success/failure messages.

**Note:**

* *Enforce the Single Assertion Rule*
* *Use Assert.That()*

**Steps to perform:**

1. Create a Class Library project in the same solution which is provided and name it as suggested.
2. Rename the class file name (<SUT>Tests.cs).
3. Add the assembly reference of the UtilLib project to the test project.
4. Additionally add the reference of both NUnit and NUnit3TestAdapter in the test project using NuGet Package Manager (NPM).
5. Write the suggested test methods.
6. Run your tests.
7. Break the test by modifying the source project functionality.
8. Rerun the test.
9. Observe the test result.