Write Testable Code with Moq

IMailSender.cs

namespace CustomerCommLib

{

*public* interface IMailSender

    {

        bool SendMail(string toAddress, string message);

    }

}

MailSender.cs

using System.Net;

using System.Net.Mail;

namespace CustomerCommLib

{

*public* class MailSender : IMailSender

    {

*public* bool SendMail(string toAddress, string message)

        {

            MailMessage mail = new MailMessage();

            SmtpClient SmtpServer = new SmtpClient("smtp.gmail.com");

            mail.From = new MailAddress("your\_email\_address@gmail.com");

            mail.To.Add(toAddress);

            mail.Subject = "Test Mail";

            mail.Body = message;

            SmtpServer.Port = 587;

            SmtpServer.Credentials = new NetworkCredential("username", "password");

            SmtpServer.EnableSsl = true;

            SmtpServer.Send(mail);

            return true;

        }

    }

}

CustomerComm.cs

namespace CustomerCommLib

{

*public* class CustomerComm

    {

*private* IMailSender \_mailSender;

*public* CustomerComm(IMailSender mailSender)

        {

            \_mailSender = mailSender;

        }

*public* bool SendMailToCustomer()

        {

            return \_mailSender.SendMail("cust123@abc.com", "Some Message");

        }

    }

}

CustomerCommTests.cs

using NUnit.Framework;

using Moq;

using CustomerCommLib;

namespace CustomerComm.Tests

{

    [TestFixture]

*public* class CustomerCommTests

    {

*private* Mock<IMailSender> \_mockMailSender;

        [OneTimeSetUp]

*public* void Setup()

        {

            \_mockMailSender = new Mock<IMailSender>();

            \_mockMailSender

                .Setup(m => m.SendMail(It.IsAny<string>(), It.IsAny<string>()))

                .Returns(true);

        }

        [Test]

*public* void SendMailToCustomer\_ShouldReturnTrue()

        {

            CustomerCommLib.CustomerComm obj = new CustomerCommLib.CustomerComm(\_mockMailSender.Object);

            bool result = obj.SendMailToCustomer();

            Assert.That(result, Is.True);

        }

    }

}

