# Week 7—Object-Oriented Application Coding

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| 1 | Copy your code text of the CourseList.GetCourseByCourseID() method and paste it here:  **Code Text of Your CourseList.GetCourseByCourseID() Method**  using System;  using System.Collections.Generic;  using System.Linq;  using System.Text;  using System.Threading.Tasks;  namespace SOSCourseList  {  class Sub  {  // Create a object which will have number, name, credit hours, summary, and prerequisites  public Sub(string classNumber, string className, int creditHours, string classSummary, string preSub)  {  this.SubID = classNumber;  this.SubTitle = className;  this.CreditHours = creditHours;  this.Summary = classSummary;  this.PreSub = preSub;  }  // make the object to be public accessible  public string SubID;  public string SubTitle;  public int CreditHours;  public string Summary;  public string PreSub;  }  class ListTester  {  public static void Main(string[] args)  {  GetCourseByIDCourseExist();  GetCourseByIDCourseDoesNotExist();  Console.WriteLine("Unit Test is Passed!");  Console.ReadKey();  }  // Check if the class is exist  public static void GetCourseByIDCourseExist()  {  Sublist list = new Sublist();  string lookUpCourse = "CIS 339";  Sub course = list.GetCourseByCourseID(lookUpCourse);  if (course.SubID != lookUpCourse)  System.Console.WriteLine("ERROR - GetCourseByIDCourseExist(): Returned ID does not matches to " + lookUpCourse);  }  // Check if the class does not exist  public static void GetCourseByIDCourseDoesNotExist()  {  Sublist list = new Sublist();  string lookUpCourse = "SEC 370";  Sub course = list.GetCourseByCourseID(lookUpCourse);  if (course != null)  System.Console.WriteLine("ERROR - GetCourseByIDCourseDoesNotExist(): must return null");  }  }  class Sublist  {  // Create object-array items  public Sub[] subArray =  {  new Sub ("CIS 339", "Object-Oriented Analysis and Design", 4, "Building on the foundation established in...", "CIS 321"),  new Sub ("SEC 370", "Web Security", 4, "This course examines issues involved in protecting web-based...", "SEC 280")  };  // Check each object-array item  public Sub GetCourseByCourseID(string courseNumber)  {  return subArray.Where(item => item.SubID == courseNumber).FirstOrDefault();  }  }  }  Copy a screenshot of running the unit test of the CourseList.GetCourseByCourseID() method and paste it here:  **Screenshot of running the Unit Test of CourseList.GetCourseByCourseID() Method**    Zip all the files you used in this coding project; copy and paste the \*.zip file here so that it can be unzipped and loaded into the IDE and run on another computer:  **A \*.zip File of all of the Coding Project Files** |
| 2 | Validate and verify your code and screenshot of the CourseList.GetCourseByCourseID() method against the method contract and the method specification of the same method.  I have validated my code during the unit test that I performed, I have made an additional tests that check if the course is related to the object-array. Due to luck of time, I only have made two course test units to check if the available course is related to the list of course, and if the course is not null, in which it will give me an console error that would say that this was not the same course as user was looking for. |
| 3 | Explain how you completed your work, the decisions you made to arrive at your conclusions, and the lessons you learned.  I have completed the work in no time, which gave me opportunity to work on my other homework and start preparing for the finals. The problem was in the first place is that I did not understand the role of unit test that I had to write, but when I saw a video that was explaining the aspects of the unit test and how it should be written, I have made a lot of interesting ideas to write, but I only come up for two unit test in which I testing the existence of the actual course in object-array. |