# Week 6—Method Contract and Method Specification

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| 1 | Use this method contract template and complete a method contract for the GetCourseByCourseID() method of the CourseList class.  **CourseList.GetCourseByCourseID() Method Contract**   |  |  |  | | --- | --- | --- | | Method Name: GetCourseByCourseID() | Class Name: CourseList | ID: 1 | | Clients (Consumers): The stuff member calls this method when they want to choose and show more data for one course from the list of courses. This method is called with the coursed as a parameter in the web interface of the Course object as follows. | | | | Associated Use Cases: Maintain Course Records, Maintain Class Records, Register Class | | | | Description of Responsibilities: First, the method will search the course list for the gieven course ID. If the course ID matches then it returns the course, otherwise it will return NULL for the user. In the NULL case user had an option to repeat | | | | Arguments Received: ID of type Integer (string CourseID;) | | | | Type of Value Returned: Course object or null (if no course exists for the id) | | | | Pre-Conditions:   * courseList should exist and it cannot be empty. * The argument id should not be null | | | | Post-Conditions:   * The method returns the course matching CourseID with id, else return NULL (if there is no match | | |   Use this method specification template and complete a method specification for the GetCourseByCourseID() method of the CourseList class.  **CourseList.GetCourseByCourseID() Method Specification**   |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | | Method Name: GetCourseByCourseID() | | | | Class Name: | | ID: 1 | | Contract ID: 1 | | | | Programmer: Roman Kovtun | | Date Due: 12/31/18 | | Programming Language:  Visual Basic Smalltalk C#  **Java** | | | | | | | | Triggers/Events:  When a staff member chooses a course from the course list to get more data of the selected course, then this method is called. | | | | | | | | Arguments Received:  Data Type: | | Notes: | | | | | String CourseID | | The Course ID of the chosen is used to filter the list of the available courses from the list of the courses. | | | | |  | |  | | | | |  | |  | | | | |  | |  | | | | | Messages Sent & Arguments Passed:  ClassName.MethodName: | | | Data Type: | Notes: | | | NONE | | |  |  | | | Argument Returned:  Data Type: | | Notes: | | | | | Course Object | | If course for ID doesn’t exit, then NULL is returned. | | | | | Algorithm Specification:  Loop throught the whole course list having list of courses.  If CourseID matches with give ID  Then Return this course with assigned classes  End If  End Loop | | | | | | Misc.Notes:  The course search cannot be combined. The only search user can perform is one course per search. Each course will always give a list of classes that was assigned by the course. | | | | | |
| 2 | Validate and verify your method contract and method specification against the CRC card for the CourseList class and the CRC card for the Course class. The following the Get Course By the course ID is performing only one-time search in the system to retrieve the course ID and class list of the assign course. In the following flow, the course can be NULL due to user error or poor communication to the SOS services. Due to limitation to the search, search cannot be performed combining with other courses. User always have a change to get another search he/she needs. In addition, NULL respond will notify the user that course that user was looking for is not exist or was typed wrong. |
| 3 | Explain how you completed your work, the decisions you made to arrive at your conclusions, and the lessons you learned. Due to luck of time I had to think about the project from different perspective. Even it took me extra time to understand what it really to build a class and how it should be used in the project. The actual class CourseList and it method GetCourseByCourseID, I have found the ways to perform a single method that will require to loop through the list of CourseID where it should match the ID of the search and CourseID and then return the course for the user. It really easy approach to follow, but it takes a lot of time to consider the course that will retrieve the class list. |

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