IZENDA

Engineering

Coding Exercise I

Object-Oriented Design & Version Control

Version 1.2 – Aug 31, 2017

Object-Oriented Design & Version Control

Assignment Objectives

- Learn Basic Git Commands
- Learn Basic OOD
- Learn Izenda Coding Standards

The Assignment

Izenda Course Management System (CMS)

The Izenda CMS allows students to view/register for courses, instructors to submit student's final course grades, and allows administrators to CRUD courses and assign instructors.

Your goals for the week:

1. Design the initial system and the relationships between the various entities. Your design should be flexible enough to easily allow changes in future assignments.
2. Review the training resources.
3. Become familiar with Git
4. You should commit your assignment to your GitHub repository

Functional Requirements

Instructor

Property	Description
Id	
First Name	
Last Name	
HireDate	
UserName	
Password	
UserType	Administrator, Instructor, Student

Student

Property	Description
Id	
First Name	
Last Name	
GPA	
UserName	

Password	
CreditHours	
Level	Freshman, Sophomore, etc (Calculated from the student's credit hours, see the Student Level Scale)
UserType	Administrator, Instructor, Student

Student Level Scale:
Freshman 0-29 credit hours
Sophomore 30-59 credit hours
Junior 60-89 credit hours
Senior 90 or more credit hours

Administrator

Property	Description
Id	
First Name	
Last Name	
HireDate	
UserName	
Password	
UserType	Administrator, Instructor, Student

Course

Property	Description
Id	
StartDate	
EndDate	
CreditHours	
CourseName	
CourseDescription	

NOTE: You will need to decide how to associate a course with an instructor and how to associate a student with his/her course grades.

CourseGrades

Property	Description
Id	
CourseId	
FinalGrade	A, B, C, D, F

Coding Standards

You will need to follow the Izenda coding standards for this and all subsequent assignments.
http://confidential.izenda.us/Coding-Standards

Required Training Resources

C# 6 from Scratch
https://app.pluralsight.com/library/courses/csharp-6-from-scratch/table-of-contents

Optional Resources

OOD
https://msdn.microsoft.com/en-us/library/dd460654.aspx

Git
https://www.atlassian.com/git/tutorials/what-is-version-control
https://www.atlassian.com/git/tutorials/what-is-git
https://www.atlassian.com/git/tutorials/why-git
https://www.atlassian.com/git/tutorials/setting-up-a-repository
https://www.atlassian.com/git/tutorials/saving-changes
https://www.atlassian.com/git/tutorials/inspecting-a-repository
https://www.atlassian.com/git/tutorials/viewing-old-commits
https://www.atlassian.com/git/tutorials/undoing-changes
https://www.atlassian.com/git/tutorials/rewriting-history

Deliverables

Your assignment should be committed to your GitHub repository in branch “master”.

Grading

You will be graded on several criteria:

1. Standards
2. Class Design
3. Code Design
4. Usability
5. Bugs