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**Course Overview**

**Course Code:** SD-210

**Program:** Software Developer

**Credits:** Full Credit

**Course Hours:** 100 hours

**Prerequisites:** None.

**Academic Year:** 2018-2019

**Class Times & Information**

**Location:** 200 Henlow

**Days:** Monday to Friday

**Times:** 8:45am – 3:15pm

**Format:** Classroom

**Start Date:** April 1st, 2019

**End Date:** May 6th, 2019

**Instructor Overview**

**Instructor:** Guilherme Guizado

**Email:** guilherme.guizado@mitt.ca

Applied MVC Concepts II

Course Outline

**Course Description**

In this 100 hour course the Student will be required to build a bug tracking web application. In addition to other functionality this site will include features such as e-mail notifications, role-based security and custom registration. These features will be implemented using an array of technologies including but not limited to C#, LINQ, HTML, CSS, JavaScript and jQuery.

Bug trackers are used by corporations throughout world. If a company develops software, whether for in-house use or distribution, it uses a bug tracking system to maintain an accurate record of the software development process on a per-project basis.

This is a Project based class in which an emphasis is placed on producing specific deliverables on a weekly basis.

*Features Coder Foundry Content*

**Methods**

Methods of instruction will be varied, including:

* Lectures
* Presentations
* Demonstrations
* In Class Practice and Exercises

**Materials**

* Laptop Computer
* Electronic documents

**General Learning Outcomes**

Upon successful completion of this course, students will be able to:

1. Create a custom helper class to facilitate Role management.
2. Create a custom helper class to facilitate Project membership.
3. Implement search, sortable tables using jQuery DataTables.
4. Create custom HTML helpers.
5. Create custom Authorization filters.
6. Create custom Action filters.
7. Compose dashboards using View Models.

**MITT Accessibility Statement**

MITT is committed to creating a learning environment that meets the needs of its diverse student body. If you anticipate or experience any barriers to learning in this course, please feel welcome to discuss your concerns with me.

If you have a disability, or think you may have a disability, it is strongly recommended for you to meet with Kayla Hoskins, Student Advisor - Accessibility, to begin this conversation or request an official accommodation. You can find more information about the Accessibility Services, including contact information, here: [www.mitt.ca/student-success/accessibility-services](http://www.mitt.ca/student-success/accessibility-services). If you have already arranged accommodations through Kayla Hoskins, please feel free to meet with me if you have any questions or concerns regarding the implementation of your accommodations. If you do not have a documented disability, remember that other support services, including the Learning Specialist, peer tutors and clinical services are available to all students through MITT Student Services.

**Course Schedule**

Please note that instructors reserve the right to adjust the course schedule without prior notification to meet the changing needs of the class as a whole. It is the responsibility of the student to follow up in cases of missed classes.

|  |  |  |
| --- | --- | --- |
| Class/Day | Topics covered | Activities/Assessment |
| **Class 1**  (Apr 1st, 2019) | * Project introduction and walkthrough * Bug Tracker Database Schema | * Bug Tracker DB Spec * **Deliverables #1 discussion** * Lecture |
| **Class 2**  (Apr 2nd, 2019) | * Discussion of Roles and Projects * Bug Tracker permissions by Role | * Bug Tracker permissions spreadsheet * Lecture |
| **Class 3**  (Apr 3rd, 2019) | * User Role management | * Assigning Roles to Users * User Helper Classes and Methods * Lecture |
| **Class 4**  (Apr 4th, 2019) | * User Project management | * Project Helper Class * Lecture |
| **Class 5**  (Apr 5th, 2019) | * Lab Day | * Research * Discussion |
| **Class 6**  (Apr 8th, 2019) | * Discussion of Tickets | * Deliverables #1 due and review * **Deliverables #2 discussion** * Lecture * Discussion |
| **Class 7**  (Apr 9th, 2019) | * Discussion of Ticket Comments | * Lecture * Discussion |
| **Class 8**  (Apr 10th, 2019) | * Discussion of Ticket Attachments | * Lecture * Discussion |
| **Class 9**  (Apr 11th, 2019) | * jQuery DataTables | * DataTables * Lecture |
| **Class 10**  (Apr 12th, 2019) | * Lab Day | * Research * Discussion |
| **Class 11**  (Apr 15th, 2019) | * Discussion of Ticket Histories * Discussion of Ticket Notifications | * Lecture * Discussion |
| **Class 12**  (Apr 16th, 2019) | * Discussion of Ticket Details | * Lecture * Discussion |
| **Class 13**  (Apr 17th, 2019) | * Discussion on providing access via Demo Users | * Lecture * Discussion |
| **Class 14**  (Apr 18th, 2019) | * Introductory discussion on Web applications security. | * Securing .NET Web Applications * Lecture |
| **Class 15**  (Apr 22nd, 2019) | * Discussion on providing consolidated information via a Dashboard | * Deliverables #2 due and review * **Deliverables #3 discussion** |
| **Class 16**  (Apr 23rd, 2019) | * Restricting access via Custom Authorization filter | * Custom Authorization Filter |
| **Class 17**  (Apr 24th, 2019) | * Restricting access via Custom Action filter | * Custom Action Filter |
| **Class 18**  (Apr 25th, 2019) | * Creating Custom HTML helpers for displaying time values | * Creating Custom HTML helpers |
| **Class 19**  (Apr 26th, 2019) | * Lab Day | * Research * Discussion * **Assignment #1** |
| **Class 20**  (Apr 29th, 2019) | * LINQ Pagination | * Research * Discussion |
| **Class 21**  (Apr 30th, 2019) | * Partial Views | * Research * Discussion |
| **Class 22**  (May 1st, 2019) | * Entity Framework Custom Mappings | * Research * Discussion |
| **Class 23**  (May 2nd, 2019) | * Entity Framework Custom Mappings Continued | * Research * Discussion |
| **Class 24**  (May 3rd, 2019) | * Lab Day | * **Assignment #2** |
| **Class 25**  (May 6th, 2019) | * Project Review | * Deliverables #3 due and review |

**Student Evaluation**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Type of Evaluation** | | **Percentage of Grade** | | **Date Due/Assessed** | |
| **Project Deliverables**    Deliverables #1    Deliverables #2  Deliverables #3 | | **65%**  20%  25%  20% | | April 8th, 2019  April 22nd, 2019  May 6th, 2019 | |
| **Assignments**    Assignment #1  Assignment #2 | | **35%**  15%  20% | | April 26th, 2019  May 3rd, 2019 | |

**Evaluation Details**

**Programming Tasks**

Project and assignments will encompass a combination of theory and practical work, allowing students to apply and demonstrate their newly-acquired knowledge and skills. Unless specified, programming tasks will be individual efforts.

Students will be provided class time for each assignment, however anything not completed during class time must be completed for homework. Assignments must be publishable to the Web and updated on GitHub prior to the beginning of the next class, unless otherwise specified. Assignment solutions will be reviewed at the Instructor’s discretion. Any assignments not implemented at the time of project review will not be accepted.

**Assignments/Deliverables**

All assignments/deliverables are individual efforts. No group work is allowed. Refer to the **Academic Honesty**policy for more information on individual expectations.

**Grading**

|  |  |  |
| --- | --- | --- |
| **Letter Grade** | **Grade Point Value** | **Accumulated Evaluation Percentage** |
| **A+** | 4.5 | 90 – 100% |
| **A** | 4.0 | 80 – 89% |
| **B+** | 3.5 | 75 – 79% |
| **B** | 3.0 | 70 – 74% |
| **C+** | 2.5 | 65 – 69% |
| **C** | 2.0 | 60 – 64% |
| **D** | 1.0 | 50 – 59% |
| **F** | 0.0 | 0 – 49% |

*Note: A passing grade in this course is 50%.*

**Course Specific Policies**

**Laptop Policy**

Students are expected to keep their laptop in good running order and are required to bring it to every class. Coming to class without a functioning laptop may require the student to go get the laptop, an absence, and/or affect their participation and professionalism grade.

**Academic Honesty**

Assignments are intended to be your own work unless explicitly indicated your instructor.

When completing these individual assignments, it is acceptable, and you are **encouraged** to:

* Discuss, at a high level, the problem and potential solution with your fellow students. "At a high level" refers to general approaches to solutions, and not the actual wording of a specific solution.
* Seek assistance in solving small syntax errors from your fellow students, or your instructor.
* Research and obtain solution ideas from the Internet or other external sources.
* Include external code or background material in your solution provided that it has been supplied by the instructor explicitly for use in your solution.

However, it is **not** academically honest to:

* Copy, in whole or in part, any portion of a solution from another student. This is considered plagiarism (unless the instructor explicitly permits group work).
* Copy, in whole or in part, any portion of a solution from the Internet or any other external sources. Even with proper citation, it is generally not acceptable for more than a small percentage of an assignment to be copied verbatim from other sources. The exact threshold is at the discretion of the instructor and MITT.
* Knowingly provide a written solution to an assignment to another student.
* Alter an assignment after it has been graded.

In summary, assignments cannot be copied verbatim from any source. Ideas may be discussed and researched, but ideas must be expressed in your own words, and the code should be your own, unless the instructor explicitly permits group work.

**Project-Based Learning Environment**

The Software Development industry is largely based on completing projects within a variety of timelines in both teams and independently. Students will prepare themselves for industry by practicing the skills required for this type or workplace including; time-management, problem-solving, and showing adaptability by working with various deadlines and team members. The instructor will act as a facilitator to guide students through the content but students will be responsible for ensuring that they are keeping up with the course schedule and learning outcomes by submitting quality assignments and projects on time.

**MITT Academic Policy and Regulation**

Students are responsible for reviewing and observing all [MITT Student Policies](http://mitt.ca/about-mitt/academic-regulations-procedures) while engaged in any form of academic activity with the Institute and should refer to the MITT website for all policy information.

Key policies to refer to in relation to this course include:

* [Student Discipline](http://mitt.ca/Content/Images/uploaded/Student%20Discipline%20-%20220416.pdf)
* [Student Behaviour](http://mitt.ca/Content/Images/uploaded/Student%20Behaviour%20Policy%20220416.pdf)
* [Student and MITT Expectations](http://mitt.ca/Content/Images/uploaded/Student%20and%20MITT%20Expectations%20-%202016.pdf)
* [Attendance Policy](http://mitt.ca/Content/Images/uploaded/MITT%20Attendance%20Policy%20-%20Sept%2014%202017.pdf)
* [Documentation Requirements](http://mitt.ca/Content/Images/uploaded/Documentation%20Requirements%20Absences.pdf)
* Dress Code Policy

**Academic Integrity**

As per the [MITT Academic Integrity Policy](http://mitt.ca/Content/Images/uploaded/Academic%20Integrity%20Policy.pdf), academic dishonesty in any form is unacceptable. This policy applies to all courses at MITT and defines all activities and behaviours that might constitute grounds for an academic violation.

MITT expects all students to attend an academic orientation session within their program and to adhere to the principles of academic integrity.

Students found to be in violation of the Academic Integrity Policy will be subject to disciplinary action as defined by [the MITT Student Discipline Policy](http://mitt.ca/Content/Images/uploaded/Student%20Discipline%20-%20220416.pdf). Refer to both of these policies for further details.

**Retention of Course Outline**

Students are advised to retain course outlines for future use in support of applications for employment or transfer of credits.

*Information contained in this Course Outline is correct at the time of publication. Continuous improvement is important to MITT and our program delivery. Program and course content may be revised on an ongoing basis to ensure relevance to changing educational and/or labour market needs. As such, this program may be subject to change and the information outlined within should not be viewed as a representation or guarantee of offering.*