**E-COMMERCE**

420-411-VA

#### **ASSIGNMENT-1-PART-2**

For this assignment you will implement the Object Relational Concept (ORM) and the Model View Controller (MVC) pattern to support part of the Create, Retrieve, Update, Delete (CRUD) functionality on database data.

For the parts that require code implementation, write the code in specific files and submit the files as a compressed file with this document.

This assignment is an individual work.

You need to demo your submission in class.

1. Describe what ORM is and how it is implemented:

|  |
| --- |
| ORM is a programming technique that maps database records to objects in code, enabling developers to interact with relational databases using OOP.  ORM is implemented by defining classes that represent database tables, specifying relationships, and using library functions or methods. |

1. Describe what MVC is and how it is implemented:

|  |
| --- |
| MVC is a design pattern used in software development where the Model represents data and logic, the View displays the data, and the Controller handles user input and orchestrates interactions between the Model and View.  MVC is implemented by organizing code into three distinct components: Models, Views, and Controllers. |

1. Identify and justify the need for MVC:

|  |
| --- |
| MVC is needed to enhance code organization and maintainability by separating concerns, improving code reusability, and facilitating collaboration among developers in complex software projects. |

1. For this problem you have to develop two web pages. One web page, the viewing page or listing page, for displaying data from the database in a table format, on which there is an edit link for each record in the table. When the edit link is clicked the user is taken to another page, the editing page where the user may update the fields for the selected row and then click save to update the data in the database. The edit page will have a save button and a view button, where the view button redirects the user to the listing page.

Implement the listing and update pages using the MVC pattern:

* 1. Consult with your project’s teammates and each one selects one of the entities below:
     + Products
     + Users
     + Orders
  2. Create a database
  3. Create the table for the entity you chose
  4. Fill the table with sample data
  5. Develop two web pages to support the retrieve and update functionalities of CRUD:
     + Implement the database connector code
     + Implement the Model for the table
     + Implement the View for the listing page data
     + Implement the View for the update page
     + Test your implementation

|  |
| --- |
| a attached files! |