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## Transactional Web Applications

- 420-951-VA - SECTION 07001

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### PROJECT DESCRIPTION

#### WHY ?

- Before you join the workforce, you must show that you can carry out the stages of project development: proposal, case study, coding, release, and presentation/demo.
- You have learned enough about web programming to pass Transactional Web Applications.

With the result of this project, you can showcase your web programming.

In this project, you will need to build a transactional website. The products you should sell are at your own discretion. However, consider that this web project is one of your accomplishments that could be highlighted during an interview for an internship, for example.

The students must plan and implement a web-based application that uses Object Oriented PHP, MVC, MySQL, HTML, CSS, Bootstrap, and JavaScript.

The developed application should include the following functionalities:

- A **Log-in Form** (Sign in – Sign out)
- A **Listing Page** with a list of data items
  - The list of data can represent a list of products on an e-commerce website for example
  - The list may consist of either a table or a custom styled list
  - Each item in the list must have at least three displayed properties, for example if we consider a product item it will have: A Product Name, A Product Description, A Product Image, A Product Price
  - The data of the list items must be stored and retrieved from a database
- A **Search** box
  - There must be a **Search** box on the **Listing Page**, where a user types a keyword and only the items with a property containing a match for the keyword will be displayed
- An **Edit Page (Admin – refer to Customer class)**
  - The listing page must have an edit button for each item
  - When the edit button is clicked, a user is directed to an edit page with a form and a save button. The form fields represent some of the properties of a list item. This way the Edit Button allows a user to modify the properties of a list item.

- When the user clicks on the Save button the information must be saved to the database
- **Database:** The application must have a database where all data is stored into and retrieved from and Not hard-coded, that includes the username and password of users. Thus, the system should include an admin side for adding, editing, and deleting items, as well as controlling the availability / quantity of each.

## WHO?

Each team has 2-3 members who fully collaborate to complete their project.  
Each team member must make an equal contribution to all aspects of the project.

## WHAT? (The Deliverables)

1. Project proposal:
  - A. describe the **clientele** and the **need addressed**.
  - B. list the **functionalities** of the product.
2. Implementation: a web server application, implementing all user stories.
3. Online presentation, at most 10 minutes.
4. Final report

## DELIVERABLES

The following deliverables must be submitted:

1. **Deliverable 1:** Project Proposal

You will make a short project proposal describing the clientele, the general goal of the project, and listing the features of your product. You must also **provide an estimate of the number of hours you will spend in implementing this product.**

All project proposals must be written and handed in, in Word documents or Latex.

**Example (very short) project proposal**

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### Shipping Tracking System

*FishBait.com is a web store catering to avid fishermen; this web store ships fish bait and fishing equipment. Our project concerns the administration aspect of this online store: the owners must track inventory, incoming packages and outgoing packages. The goal of our system will be to keep track of inventory, pricing information, orders made to suppliers and orders to be shipped to clients, also we will display the online store. Our project will exclude online purchasing but will support:*

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- *Input orders made to suppliers.*
  - *Transfer received supplier orders to inventory.*
  - *Input client orders.*
  - *Mark client orders as sent and modify inventory.*
  - *Display inventory, supplier orders and client orders.*
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*We will model our solution on the eBay "My eBay" online buying tools and online store experiences. We estimate that we will spend a total of 120 hours building this product, i.e., 60 hours per team member.*

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## 2. **Deliverable 2:** Implementation

Following your case study, you will implement a functional system, using Object Oriented PHP and MySQL.

A good way to know that you are respecting your case study is that **the implementation section of your user stories can be used as comments for your code.**

If you need more comments, you may need to update your case study as to document your project.

## 3. **Deliverable 3:** Online Presentation and Final report of the complete project (including Back-End and deliverables 2 & 3)

### **Part 1: Presentation**

You will discuss, in at most 10 minutes, the following:

- Your proposal:
  - **What need do you address? Why?**
- Your case study:
  - **Show the most interesting use case.**
- Your implementation
  - **Show us a demo of all use cases.**
  - **What was the hardest to implement? Why?**

### **Part 2: Final Report**

This is your case study, with the addition of screen shots demonstrating the implementation of each user story.

### **WHEN?**

#### **Deadlines:**

- **February**, via MIO: Teams composition
- **March 02:** Project proposal
- **March 23-30:**
  - Completed implementation, fully commented, and documented.
  - Final report

### **WHERE?**

- **March 23-30** : Presentations/demos will be made in online.

### **What now?**

- Brainstorm and write your project proposal.
- Get approval from your teacher for your project.

## EVALUATION CRITERIA

The project outcomes will be evaluated based on the following criteria:

1. Submission on time
2. Features & Functionalities
3. Coding using best practices.
4. Esthetics
5. Presentation

• Front-End - HTML	<b>%25</b>
• Back-End - PHP	<b>%35</b>
• Database - MySQL	<b>%20</b>
• Features & Functionality	<b>%10</b>
• Presentation	<b>%10</b>