Web Programming Languages - Final Project

Each project should include following major functionalities:

* User signup: Register a new user to the system.
* Check the new username or email address if it’s already registered to the system using AJAX. If the username/email is already registered, request the user to select/use another one.
* Form validation: Check if all mandatory fields are filled out. (JQuery)
* Check if password is strong enough. Define our own rules for a strong password. (JQuery). User passwords should be hashed and hashed version of passwords should be stored in the database.
* User login
* List available products/services in the system. User should be able to filter the results based on at least one criterion (i.e. category). Also, should be able to “Search” for a specific item.

To view the products/services, login isn’t required. Login required only when adding them to the cart.

* You will have paging functionality for listing products/services.
* Add item(s) to the cart and checkout. For the online shopping sites, pricing will be included but payment functionality doesn’t need to be implemented. However, you will keep track of inventory. For websites where a shopping cart does not exist, you can implement Wish list or Favorites and save those listings.
* Show the history of purchases or saved lists for the user.
* For Admin user(s): One Admin should do.
  + List all items
  + Add new item
  + Delete item
  + Update item

**Front-end design**

You can use Bootstrap and Bootstrap templates for user interface design. You can also use design tools (i.e. FrontPage, Dream Weaver). You are flexible for page designs but it is important to have a professional look for all pages (i.e. the same menu or navigation bar appears on top of every page etc.).

You can also use frameworks (i.e. Angular JS) for client-side scripting.

**Back-end design**

You can use relational databases or MongoDB for database component.

For server side scripting, you can use PHP, Ruby on Rails and Node.JS You are also allowed to use PHP frameworks such as Laravel, CodeIgniter, CakePHP, etc.

**Project Report**

Project Report should include following items:

* Project Title
* Name for the Website
* Project Description: a brief description of the website. If you make any assumptions, make sure to include those assumptions.
* Database Design: Database structure including the tables and primary and foreign key definitions on tables. Alternatively, you can include your “Create Table” statements for this. In case you use MongoDB, provide information about your data model. If using relational databases, the tables should be normalized to 3NF
* Languages/frameworks used for implementation
* Screenshots for main functionalities (5-6 screenshots will be sufficient)
* Team Members: Names and Net-IDs for team members
* Work division among team members: who has completed which part (be specific and try to give page names). Please note that every team member should be actively involved in every step of the project development (database design, client-side and server side scripting) and work should be equally divided between team members.

**Deliverables:**

* Project Report

Due Date: December 7, 2016, 11:59 PM.

* Source code

Due Date: December 7, 2016, 11:59 PM. Should be ready by Nov 30, 2016.

Additionally, you will show a live demo of your project in the classroom. Presentations will be done during last two weeks of the semester and presentation dates for teams will be announced on eLearning.