



LaSalle College

Project

**Computer Terminology
(420-L04-AS)**

30% of Final Grade

Teacher: Salima Hassaine

Project Objective

The main purpose of this project is to develop a dynamic web application in PHP. The project consists of two phases:

- **Phase I:** Design, implementation and validation of the database using **Object Oriented Programming** in **PHP**, **PDO class** for manipulating the database, PhpMyAdmin and MySQL (relational database management system).
- **Phase II:** Development of the application and implementation of user interfaces using PHP, HTML, CSS, Ajax, Bootstrap and JavaScript.
- **Important Note:** You can use any website template or any website design tool like: Dreamwaver, Webflow, MotoCMS 3.0, Squarespace, etc. However, **you are not allowed to use any Control Management System (CMS)** like: WordPress, Joomla, Drupal, etc. **or PHP Framework** like: CodeIgniter, Zend, CakePHP, FuelPHP, Slim, Yii, Symfony, etc.
- **Important Note:** plagiarism can occur if you work together with others on a task that is meant to be individual work. It can also occur when, contrary to instructions, you assist another student to complete a project task or when you request/accept assistance from another student such that the work you submit is not wholly your own.
- You can choose one from the following subjects:
 1. Online classified recipes (like www.ricardocuisine.com)
 2. Online marketplace for car shoppers and sellers (like www.autotrader.ca)
 3. Online restaurant reservations (like www.opentable.com)

Project Submission

The submission deadline for Database Design: **March 30th, 2017.**

The submission deadline for your Final Report and Application: **April 19th, 2017.**

The Final Report includes a description of the screenshots of your application and the tables of your database. The project is individual work.

Project 1: Online Classified Recipes

The project consists in developing a web application that manages classified recipes, like Ricardo website: www.ricardocuisine.com

Phase I: Database Design and Implementation (10 points)

Important note: The implementation of database in phpmyadmin is not a team work; you cannot use the same names of tables and attributes even if you are using the same database design.

The purpose of this step is to design and create a database that meets the following requirements:

- A **recipe** is described by **Name** (e.g. Quick And Easy Pizza), **recipe Date**, **Preparation Time** (e.g. 15 MIN), **Cooking Time** (e.g. 12 MIN), **Servings** (e.g. 4 people), **Ratings** (e.g. 4 stars).
- Every **recipe** belongs to **one or more categories** (e.g. Pizza, Super Bowl, Weekday recipe), and belongs to **one meal type** (Appetizer, Main Dish, Dessert).
- Each **recipe** has a list of **ingredients**. Every **ingredient** described by **name** and **quantity** (in a specific metric) **needed for the recipe** (e.g. Ingredient olive oil, the quantity can be 60 ml, or 1/4 cup for the recipe Quick and Easy Pizza).
- **Every recipe has a picture.**
- **Every category has a picture.**
- Each **recipe** has a description of all the **Preparation** steps (e.g. 1- In a bowl, combine all the ingredients. 2- Season with salt and pepper. 3- Preheat Oven to 210 °C (425 °F)...))

Any user of your application (members and not members), can search recipes **by name, or category, or meal type**.

There are two types of users for your application:

- **Visitors**, users who are not registered. They can just **search and view recipes**.
- **Members**, users who are registered. They can **search and view recipes**. They need to **login to access** to extra functionalities, like: **manage their favorite recipes**, and **rate** a recipe.

If any **user** wants to **become a member** of this web site, he must register by entering: **Username, Email, and Password**. If the Username or the Email is already used by another member in database, then you have to ask the new user to enter another one. Once registered, the member can login either by his username and password or by email and password. If the user forgot his password you have to provide him a link to reset their password.

Bonus Questions (Optional)

1. You have to implement an **advanced search** by specifying **(with or without ingredient)** for a category or meal type. For example, a user can search recipes of **Appetizer Category** **with** the **ingredient cheese** or can search recipes of **Dessert Meal Type** **without** the **ingredient peanut** **(15 points)**.
2. Every **recipe** has **Nutrition Facts** of 1 serving (e.g. **Calories** 635, **Total Fat** 33 g, **Saturated Fat** 10 g, **Sodium** (salt) 1005 mg, **Carbohydrate** 56 g, **Fibre** 3 g, **Protein** 28 g). **(05 points)**.
3. Members **can read and write a review (comment) about recipes** **(10 points)**.
4. The presentation of the website can be done in different languages (e.g. French, English) **(10 points)**.

Phase II: Development of the application (90 points)

II.1 / Build Classes: (40 points)

Important Note: It is your responsibility to determine which classes to create. This task is not a team work; you cannot use the same classes even if you are using the same database design.

Based on object-oriented programming, create the php classes

- Every class must have: constructor, setters, getters, and methods, like: toString(), create(...), update(...), delete(...) and find (**you must use PDO to manipulate the database**) .

II.2) Design and Implementation of the user interface of the website (50 points)

Important Note: This task is not a team work; you cannot use the same CSS template even if you are using the same database design.

The purpose of this step is to design and implement user interfaces using HTML, CSS, Javascript and integrate php classes, programs and Ajax.

1) Create Home Page:


Menu: contains the options: Home, French, English, Register, Login

Menu		
Search:		
category 1	category 2	category n ...

2) Create Category Page:

Menu		
Search:		
Recipe 1	Recipe 2	Recipe n ...

3) Create Recipe Page

Main Menu		
Search		
KALE GRILLED CHEESE  ★★★★★ PREPARATION TIME: 15 MIN COOKING TIME: 15 MIN SERVINGS: 4	INGREDIENTS <ul style="list-style-type: none"><input type="checkbox"/> 1 clove garlic, chopped<input type="checkbox"/> 2 tbsp (30 ml) olive oil<input type="checkbox"/> 2 cups (50 g) kale leaves, chopped<input type="checkbox"/> 8 slices loaf bread<input type="checkbox"/> 2 tbsp (30 g) butter<input type="checkbox"/> Salt and pepper<input type="checkbox"/> Select all <div>ADD TO MY GROCERY LIST</div> PREPARATION <ol style="list-style-type: none">1. In a non-stick skillet over medium heat, brown the garlic in the oil. cooking for about 4 minutes or until the kale is al dente.2. Brush half of the bread slices with mustard.	<div>ADD TO MY RECIPES</div> <div>NUTRITION FACTS</div> CATEGORIES <div>Sandwiches</div> <div>Vegetarian</div> <div>Weekday recipes</div> <div>30-minute recipes</div>

Project 2: Online marketplace for car shoppers and sellers

The project consists in developing a web application that online solution for buying and selling new and used cars, like the website: www.autotrader.ca

Phase I: Database Design and Implementation (10 points)

The purpose of this step is to design and create a database that meets the following requirements:

- For each **car** you have to display the following info:
 - Stock Number (Id)
 - Make: (e.g. Audi, Mitsubshi, etc.)
 - Model: (e.g. Q5, ASX, etc.)
 - Status: (Used or New)
 - Registration-year: (e.g. 2015)
 - Body Type: (Truck, SUV, Minivan, Seden, Hatchback, Coupe, etc)
 - Engine: (e.g. V-6 cyl, V-8 cyl, etc.)
 - Drivetrain : (AWD, FWD)
 - Transmission : (Automatic or Manual)
 - Fuel Type : (Gasoline, Diesel, Biodiesel)
 - Old Price, Current Price: (e.g. \$15000.)
 - Mileage/hr(km): (e.g. 10000)
 - Doors: (e.g. 2, 4 , etc.)
 - Seats: (e.g. 2, 4 , 7, etc.)
 - Exterior Colour (e.g. White)
 - Interior Colour (e.g. Black)
 - **Every car has a picture.**

Any user of your application (members and not members), can search cars **by make, model, or body type**.

There are three types of users for your application:

- **Visitors**, users who are not registered. They can just **search and view cars**.
- **Members**, users who are registered. They can **search and view cars**. They need to **login to access** to extra functionalities, like: **manage their favorite list of cars**, and **rate** a car.

If any **user** wants to **become a member** of this web site, he must register by entering: **Username, Email, and Password**. If the Username or the Email is already used by another member in database, then you have to ask the new user to enter another one. Once registered, the member can login either by his username and password or by email and password. If the user forgot his password you have to provide him a link to reset their password.

Bonus Questions (Optional)

1. You have to implement an **advanced search** by specifying **(Min Price and Max Price), (Min Km and Max Km), (Min Year and Max Year)**. **(10 points)**.
2. You have to implement sort methods to sort the list of cars by **(Price, Km, Year, and Make)**. **(10 points)**.
3. Members **can read and write a review (comment) about a car**. **(10 points)**.
4. The presentation of the website can be done in different languages (e.g. French, English) **(10 points)**.

Phase II: Development of the application (90 points)

II.1 / Build Classes: (40 points)

Important Note: It is your responsibility to determine which classes to create. This task is not a team work; you cannot use the same classes even if you are using the same database design.

Based on object-oriented programming, create the php classes

- Every class must have : constructor, setters, getters, and methods, like : toString(), create(...), update(...), delete(...) and find (you must use PDO to manipulate the database)

II.2) Design and Implementation of the user interface of the website (50 points)

Important Note: This task is not a team work; you cannot use the same CSS template even if you are using the same database design.

The purpose of this step is to design and implement user interfaces using HTML, CSS, Javascript and integrate php classes, programs and Ajax.

1) Create Home Page:

Menu: contains the options: Home, French, English, Register, Login

You can use any template for the home page. You can use Carousel, like <http://www.mercedes-benz.ca> Or <http://www.bmw.ca/en/home.html>

2) Create Search Page:

Menu

Search

Car 1

Picture

Description
.....
.....


Car n

Picture

Description
.....
.....

3) Create Car Page:

New 2017 Mercedes-Benz S-Class S550



Vehicle Information

Vin #:

WDDUF8FB1HA320088

Body:

4-Door Sedan

Stock #:

M2408

Fuel:

Gasoline Fuel

Exterior:

Obsidian Black Met

Interior:

Black Nappa Lthr

Project 3: Online Restaurant Reservations

The project consists in developing a web application that allows customers to book a table in a restaurant, like the website: www.opentable.com

Phase I: Database Design and Implementation (10 points)

Important note: The implementation of database in phpmyadmin is not a team work; you cannot use the same names of tables and attributes even if you are using the same database design.

The purpose of this step is to design and create a database that meets the following requirements:

- A **restaurant** is described by Name (e.g. Exlisor,), Address, Opening Hours
- Every **restaurant** belongs to **one or more categories** (e.g. Fast Food, Italian, Mexican, Thai, etc) and exists in **one or more cities**.
- Each **restaurant** has a list of **tables**. Every **table** described by **id** and **number of people, status (available, occupied, reserved)**.
- Each **reservation** is described by **Name of Client, Date and time, Number of people**.
- **Every restaurant has a picture, Every city has a picture.**
- **Every category has a picture.**

Any user of your application (members and not members), can search restaurants **by name or category**.

There are two types of users for your application:

- **Visitors**, users who are not registered. They can **search and view restaurants**.

- **Members**, users who are registered. They can **search and view restaurants**. They need to **login to access** to extra functionalities, like: **make a reservation**, **manage their favorite list of restaurants**, and **rate a restaurant**.

If any **user** wants to **become a member** of this web site, he must register by entering: **Username**, **Email**, and **Password**. If the Username or the Email is already used by another member in database, then you have to ask the new user to enter another one. Once registered, the member can login either by his username and password or by email and password. If the user forgot his password you have to provide him a link to reset their password.

Bonus Questions (Optional)

- 1) You have to implement an **advanced search** using current location (**Google Map**) or by **Postal Code**. **(15 points)**.
- 2) Members can **read and write a review (comment)** for a restaurant **(10 points)**
- 3) The presentation of the website can be done in different languages (e.g. French, English) **(10 points)**.

Phase II: Development of the application **(90 points)**

II.1 / Build Classes: **(40 points)**

Important Note: It is your responsibility to determine which classes to create. This task is not a team work; you cannot use the same classes even if you are using the same database design.

Based on object-oriented programming, create the php classes

- Every class must have : constructor, setters, getters, and methods, like : toString(), create(...), update(...), delete(...) and find (you must use PDO to manipulate the database)

II.2) Design and Implementation of the user interface of the website (50 points)

Important Note: This task is not a team work; you cannot use the same CSS template even if you are using the same database design.

The purpose of this step is to design and implement user interfaces using HTML, CSS, Javascript and integrate php classes, programs and Ajax.

1) Create Home Page:

Menu: contains the options: Home, French, English, Register, Login

You can use any template for the home page.

2) Create City Page:

The diagram illustrates the layout of a City Page. It features a top navigation bar labeled "Menu" and a search bar labeled "Search". Below these, there are three dashed boxes representing category containers. The first two are labeled "Category 1" and "Category2", and the third is labeled "Category n" with an ellipsis below it, indicating multiple categories.

3) Create Category Page:

Menu

Search

Restaurant 1

Picture

Description
.....
.....

Restaurant n

Picture

Description
.....
.....

4) Create Restaurant Page:

Restaurant Elixir-Laval

★★★★★
71 reviews

Global, International
Laval
CAN\$30 and under

[Add to Favorites](#)

- Reservation
- About
- Photos
- Menu
- Reviews

Make a reservation

2 people

Mar 10, 2017

11:30 PM

Find a Table

No tables are available within 2.5 hours of your 11:30 PM request.

📈 Booked 4 times today

OTHER AVAILABILITY AROUND 11:30 PM
< Previous 7 available Next 7 available >

Day	10:45 PM	11:00 PM			
Sunday, March 12, 2017	10:45 PM	11:00 PM			
Monday, March 13, 2017	10:45 PM	11:00 PM			
Tuesday, March 14, 2017	10:45 PM	11:00 PM			
Wednesday, March 15, 2017	10:45 PM	11:00 PM			
Thursday, March 16, 2017	10:45 PM	11:00 PM			

👥
Parties of 2 typically spend 1.5 hours here

🍽️
Dining Style:
Casual Dining

🕒
Hours of Operation:
 Brunch: Saturday & Sunday:
 11:00am - 2:00pm; Lunch: Daily:
 11:00am - 4:00pm; Dinner: Sunday
 - Thursday: 5:00pm - 11:00pm,
 Friday & Saturday: 5:00pm - 12:00am

📞
Phone Number:
 (450) 687-6877

🍷
Cuisines:
 Global, International, Fusion / Eclectic

💰
Price Range:
 CAN\$30 and under