

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.

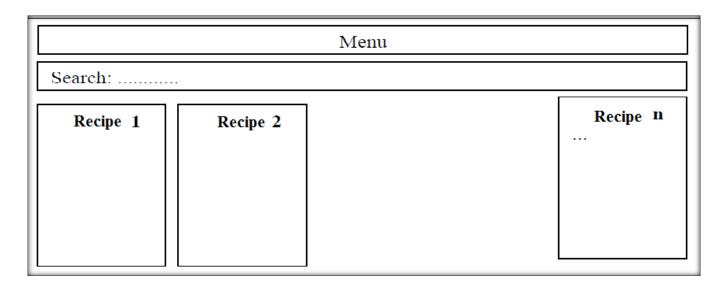
The purpose of this step is to design and implement user interfaces using HTML, CSS, Javascript and integrate php classes, programs and Ajax.

1) Create Home Page:

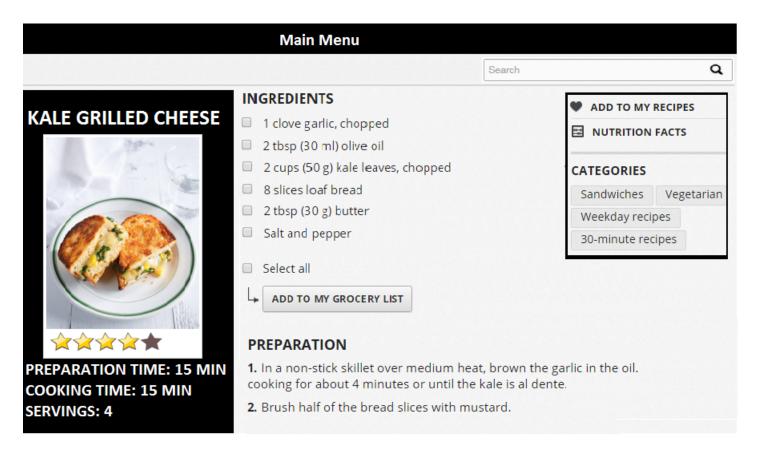
Menu: contains the options: Home, French, English, Register, Login

Menu					
Search:					
category 1	category 2		category n 		

2) Create Category Page:



3) Create Recipe Page



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:

- Foe each car you have to display the following info:
 - Stock Number (Id)
 - Make: (e.g. Audi, Mitsubshi, etc.)
 - o Model: (e.g. Q5, ASX, etc.)
 - Status: (Used or New)
 - Registration-year: (e.g. 2015)
 - Body Type: (Truck, SUV, Minivan, Seden, Hatchback, Coupe, etc)
 - o Engine: (e.g. V-6 cyl, V-8 cyl, etc.)
 - o 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)
 - o 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.

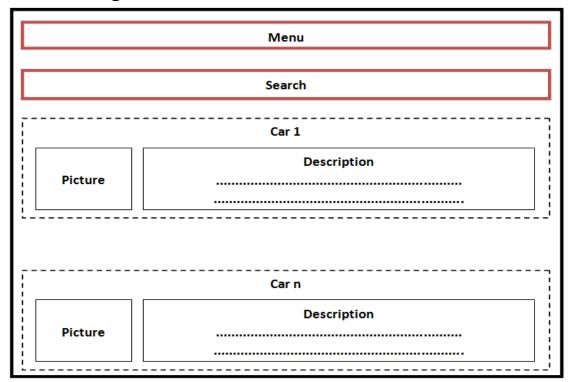
The purpose of this step is to design and implement user interfaces using HTML, CSS, Javascript and integrate php classes, programs and Ajax.

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:



3) Create Car Page:



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:

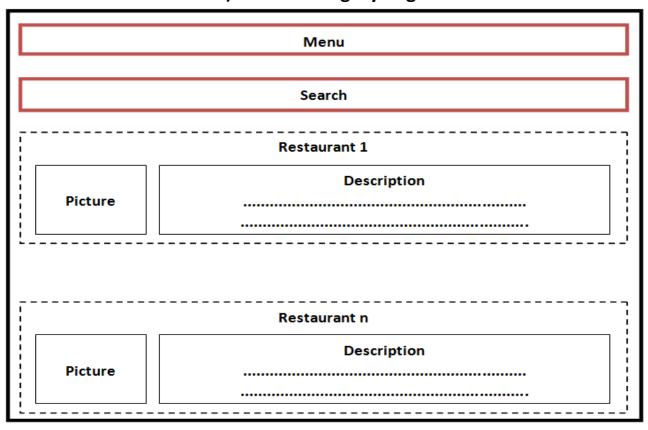
Menu: contains the options: Home, French, English, Register, Login

You can use any template for the home page.

2) Create City Page:

	ı	Menu	
	s	earch	
Category 1	Category2		Category n

3) Create Category Page:



4) Create Restaurant Page:

