

DYNAMIC WEBSITE WITH PHP + MYSQL

The goal of this project is for you to build a dynamic website from scratch, using PHP + MySQL. I describe several ideas for a project, but you're free to choose another idea if you wish.

1 Deadlines

- during courses: bring your laptops, use WAMP / MAMP for your project
- Wednesday, December the 22nd (just before the holidays): send me your project by e-mail, including:
 - ◊ the PHP (and maybe HTML) files
 - ◊ a SQL export of your database(s)
 - ◊ a short explanation of your project and of the choices you made (4 pages)
 - ◊ some screenshots of your website
- Thursday, January the 13th: oral presentation of your project with the grading grid from last year: http://www.barsamian.am/EE_examens/Oral_presentation_grading.pdf

2 Organization

- define the SQL tables you will use to hold the necessary data (what are the relations between them? how do you avoid putting redundant information into the tables? how do I want to search the data?)
- fill the tables with enough data (it's best if it's taken from real-life examples, but if you can't do it, you can fill them with mock examples) so that the use of a database makes sense. To give a figure, I would say that at least 50–100 entries in your database is a bare minimum.
- create HTML forms to search your database
- create PHP webpage to display the results of your searches

Possible BONUS ideas for your project:

- BONUS — customize the rendering depending on user-specific attributes (e.g., the website can be displayed in multiple languages)
- BONUS — when the user search for an item and there are no results, suggest an alternate spelling that would give results. e.g. if the user typed “keybord”, you should suggest “keyboard” (hint: you can search words that have a Levenshtein distance less than 2 or less than 3 with what the user typed, see https://en.wikipedia.org/wiki/Levenshtein_distance — if you want to work on that idea, I can help you on that)
- BONUS — add recommendations. Each time the user goes onto a specific webpage, you can recommend them similar items.

3 Project ideas

3.1 Shop

You're in charge of implementing a website for a shop. Your database should contain items in different categories. You should be able to display one page for each item (with name, picture, prices...), you should be able to search through the database (objects of this or that category, object with this string as sub-string of its name...)

3.2 Restaurant

You're in charge of a website for a restaurant. Your database should contain all the possible reservations for potential clients. Each client may ask for specific needs (number of persons...), so you should have this in mind. How many tables do you have? Can you put them together for the need of your client? Can you suggest him other dates close to the one they selected if it's not possible?

The menu of your restaurant should only be accessible through a document (e.g. pdf, or static html page), and is not required to be in the searchable database.

3.3 Doctor appointments

You're in charge of a website for a doctor. Your database should contain all the possible free periods in which they can see a patient. You should allow for vacations, allow for specific consultations (some consultations take more time than others, e.g. full blood check can take 40 minutes while a standard consultation is around 20 minutes).

3.4 Pokemons

Your young brother put you in charge of designing a website for his Pokemon collection. You should display one expansion that he likes the most, e.g. "Sun & Moon — Cosmic Eclipse", see the list at <https://www.pokemontcg.com/en-us/cosmic-eclipse/>. He should be able to search for specific names, for specific Pokemon types (energy types, evolves...).

3.5 Baseball club

You're secretary of a local baseball club, and they want you to design a webpage to show all the events in the year: standard trainings each week, matches with other clubs on some week-ends, open days at the beginning of the year to welcome newcomers, parties...

Each member of the club should be registered in the database, and you should be able to know when everyone is available. For instance, you want to know if Brian, your best friend, is available to compete against the "Roaring beavers", your nemesis club just across the town, on the January event.

3.6 Car properties

Brussels, and other Belgian cities, are going toward "low-emission zones" strategies, to avoid some cars to enter the city. You should hold a database with car properties, and you should display, for each car, in which cities it is ok to travel, depending on the different dates. Some parts of the city may be available, or some payment should be done sometimes...

3.7 Online dating

Your big sister just dumped her boyfriend, and she asks you to come up with the perfect dating system. Each customer should be able to enter some properties about them, and you should allow her (and others!) to search through the database for the perfect match.

3.8 Discussion forum

You must host a discussion forum on the topic of your choice. Users should be able to browse through the topics by date, by user, should be able to search through the text of messages...

3.9 Or...

You can browse ideas at <https://nevonprojects.com/php-projects-topics-ideas/> or tell me any idea you have, and we'll see how to make a feasible project out of it.