**Checksum (verify link using PowerShell)**

1. Get-FileHash 'J:\Chrome DL\xampp-windows-x64-8.1.6-0-VS16-installer.exe' -Algorithm SHA1
2. Go to browser and check if code is the same

**XAMPP**

X Cross-platform (Linux, Windows, Mac)

A Apache (web server)

M MariaDB (mySQL Oracle, Database)

P PHP (Hypertext Preprocessor)

P Perl (scripting language)

JSP (Oracle)

ASP (Microsoft)

Windows: backslash \ to separate folders

Port 8080

New port 8088

**3 steps to make sure encoding is international**

1. The file should use UTF-8 encoding (auto)
2. <head><meta charset=”UTF-8”> (auto)
3. header('Content-type: text/html; charset=UTF-8') MUST SEND BEFORE THE DOCUMENT

**To debug manually**

# 1) var\_dump

echo "Here is the var\_dump result: ";

var\_dump($notGood);

**Initializing Arrays**

$myArray = array("harry", "Ron", "hermanie");

**Sorting Arrays**

# case insensitive

sort($myArray, SORT\_STRING | SORT\_FLAG\_CASE);

**For Loop**

for ($index = 0; $index < sizeof ($myArray); $index++) {

echo "<br>" . $myArray[$index];

}

**JASON**

$myArray = array("harry", "Ron", "hermanie");

$JSONstring = json\_encode($myArray);

var\_dump($JSONstring);

$myArray = json\_decode($JSONstring, true);

echo "<br><br><br>";

var\_dump($myArray);

**Dates**

Canada:

2022/9/19

yyyy/m/d

**Html = <forms Method=”………..” </forms>**

GET

1. Used by the address bar (GET)
2. Everything is saved in the history
3. Shorter max lenght

POST

1. <form> can GET or POST (code: HTML, Javascript)
2. Nothing is saved in the history

**In html input tag**

value=”” 🡺 saves previous data

**Html injections**

htmlspecialchars(…..) Use it for $\_POST AND $\_GET (to avoid users to use scripts on the website).

**is\_numeric()**

validate if its an integer

**strlen()**

length of the string

**shuffle()**

Randomizes the array values

**Constants**

Example:

define("FOLDER\_FUNCTIONS", "commonFunctions/");

define("FILE\_FUNCTIONS", FOLDER\_FUNCTIONS . "PHPfunctions.php");

**Cygwin64 Terminal**

openssl req -x509 -newkey rsa:4096 -keyout jf-private-key.key -out jf-certificate.crt -days 365

key will last 365 days

**HTTPS (create certificate and key)**

openssl req -x509 -newkey rsa:4096 -keyout jf-private-key.key -out jf-certificate.crt -nodes

(to avoid the password)

openssl req -x509 -newkey rsa:4096 -keyout 2135106.key -out 2135106.crt -nodes

**Setup xamp mySQL**

c:\xampp\mysql\bin\mysql.exe -u root

use mysql;

ALTER USER root@localhost IDENTIFIED BY ‘new password’;

flush privileges;

exit

c:\xampp\mysql\bin\mysql.exe -u root -p

**HeidiSQL**

Collation: utf8mb4\_general\_ci

ci : case insensitive

signed: + or - -3, -20, 45

unsigned: 0-128

**to backup:**

1. Binary file
2. Graphical user interface, application

   Description automatically generatedText file (.sql)

Decimal : 5,2

100.00

Constraint example:

chk\_sub\_price = ‘subscription\_price’ <= 100

field >= 100 AND field >= 0 OR ()

Primary Key:

1. NOT EMPTY
2. UNIQUE
3. INDEX

Unique: no duplicates, for emails

Key: filter fields… country

REINDEX DATABASE en ….. FILLFACTOR

$class = $\_POST[“class”];

$query = “SELECT \* FROM players WHERE class = ‘ “ . $class . “ ‘ “;

How to use a function and Alias the column

**SELECT** player\_name, xp,

boost\_XP(XP) **AS** boost

**FROM** players

Foreign key

Restrict = blocks it from entering anything in the text box

SELECT \* FROM players

INNER JOIN games ON players.player\_id = games.player\_id

INNR JOIN = Both tables are important, they must both have data

LEFT [OUTER] JOIN = table to the left of JOIN is important

RIGHT [OUTER] JOIN = table to the right of JOIN is important

FULL [OUTER] JOIN = any of the table must have data

**SELECT** \*

**FROM** players

**INNER** **JOIN** games

**ON** players.player\_id = games.player\_id

Displays only the important part of both tables

**SELECT** \*

**FROM** players

**LEFT** **JOIN** games

**ON** players.player\_id = games.player\_id

Displays all of the players + the game table

To view the table SELECT \* FROM “table-view-name”

**For permissions**

SHOW GRANTS FOR php\_en@localhost:

copy as 🡪 delimited text 🡪 save it into a .sql file

**Ways to connect to mySQL from PHP:**

1. PDO (PHP Data Objects)
   1. Connect to 12 different database engines (MySQL/MariaDB, PostgreSQL, SQL Server, Oracle, ..)
   2. Named parameters (password, player\_name, XP, …)
   3. Throws exceptions when something occurs (detected automatically by error\_handler/exc\_handler
2. mySQLi (object-oriented)
3. mySQLi (procedural / functions)
4. mySQL (do NOT use that one)

SQL Injection

1. SQL prepared statements

**Encryption**

Password Encrypted data

Data here is my resume: I work LaSalle 🡺 12345 🡺 ##@$ASDFasd#$@SDFsd

##@$ASDFasd#$@SDFsd 🡺 12345 🡺 here is my resume: I work LaSalle

--------------------------------------------------------------------------------------------------------------------

**Password Hash**

Data Password encrypted data

12345 12345 Q!W?W@#?#A

**MVC model**

Model: The business rules, DB connection, validation

Views: what the user SEES (output) : textbox, Ex: console.writeline

Controller: how the user CONTROLS (input) the application Ex: console.ReadKey

**Class**

public : available outside if the current class

private : available inside the current class only

protected : available the current class or by the children which inherits it