Lecture 7 (w8)

2022/2023

Databases, Web Programming and Interfacing

DWPI

- Databases, Web Programming and Interfacing
  - An VI IT4T
    - 1C/1L/1P
- Timetable
  - Friday, every week (fiecare saptamana) 1C + 2L (17-20)
  - Friday, 12/02/2022 moved (UTI) → Saturday 12/10/2022 same hours

Grade

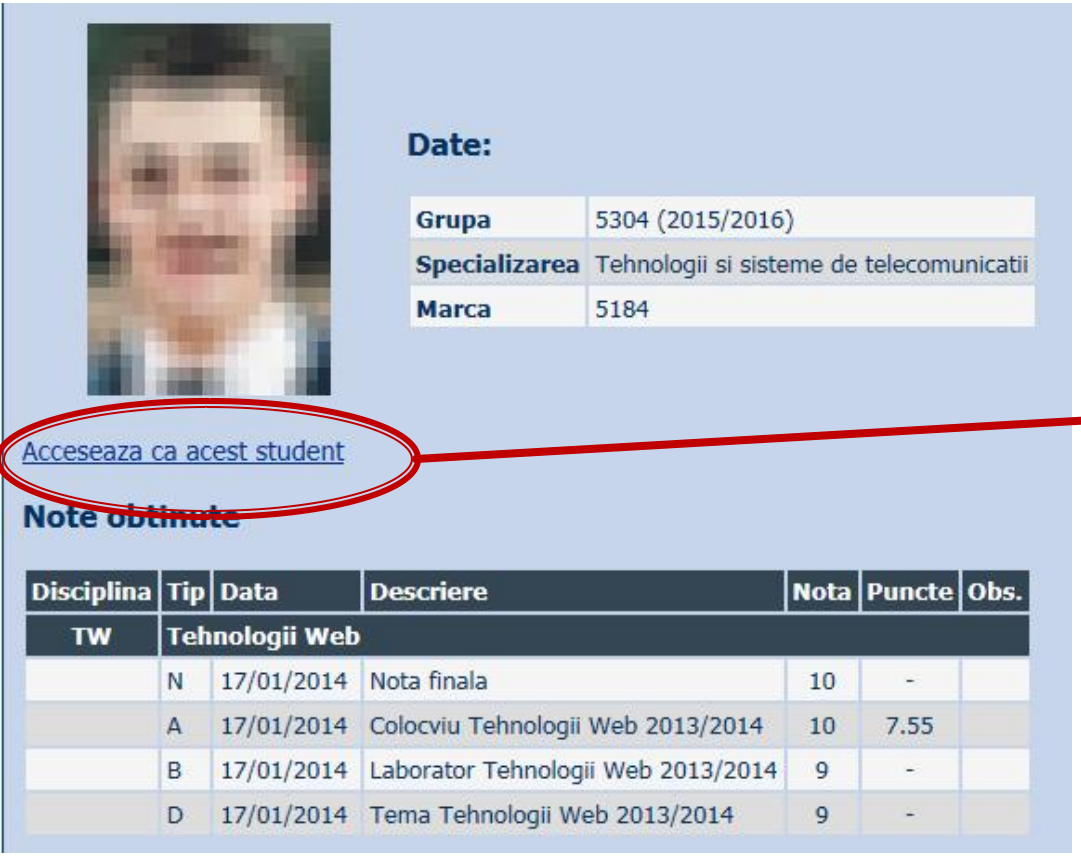
- 10% - Test/Examen – last week – 1h
- 40% - Personal/Team Project

Info

- http://rf-opto.etti.tuiasi.ro/master_it.php

Access

- ~~Not customized~~



Date:

Grupa	5304 (2015/2016)
Specializarea	Tehnologii si sisteme de telecomunicatii
Marca	5184

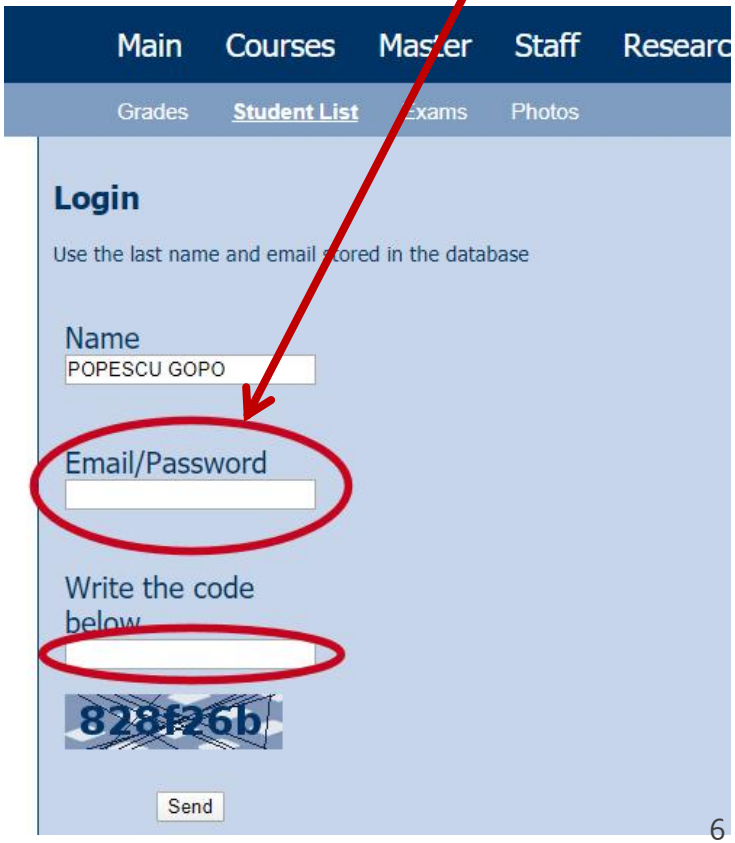
Acceseaza ca acest student

Note obtinute

Disciplina	Tip	Data	Descriere	Nota	Puncte	Obs.
TW	Tehnologii Web					
	N	17/01/2014	Nota finala	10	-	
	A	17/01/2014	Colocviu Tehnologii Web 2013/2014	10	7.55	
	B	17/01/2014	Laborator Tehnologii Web 2013/2014	9	-	
	D	17/01/2014	Tema Tehnologii Web 2013/2014	9	-	

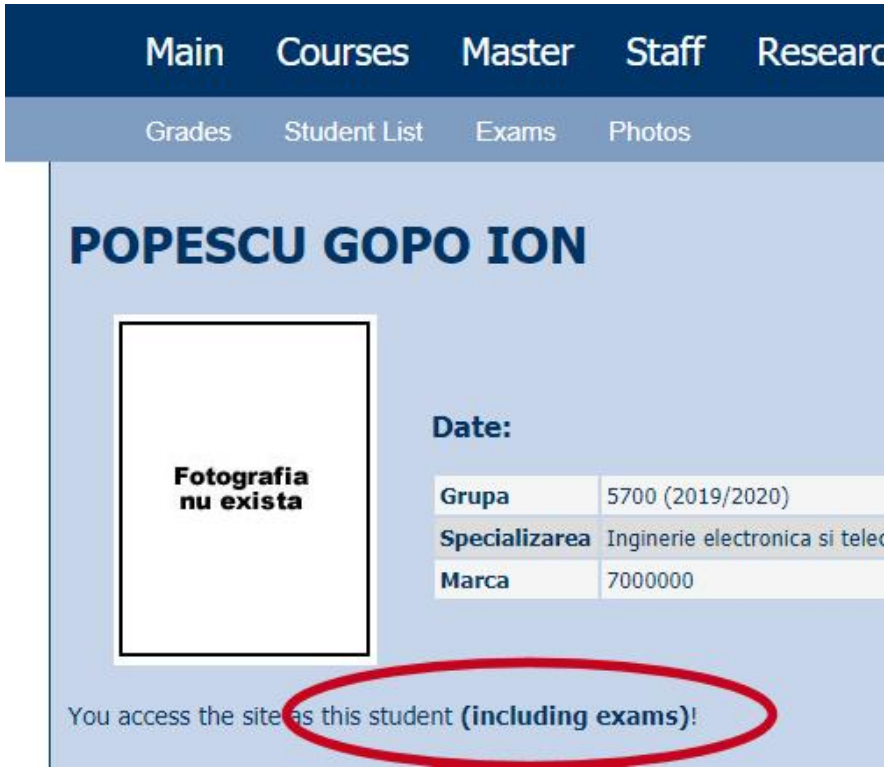
Online

- access to **online exams** requires the **password** received by email



Online

- access email/password



Password

- received by email

Important message from RF-OPTO Inbox ×

Radu-Florin Damian
to me, POPESCU

Romanian › English Translate message

Laboratorul de Microunde si Optoelectronica
Facultatea de Electronica, Telecomunicatii si Tehnologia Informatiei
Universitatea Tehnica "Gh. Asachi" Iasi

In atentia: POPESCU GOPO ION

Parola pentru a accesa examenele pe server-ul **rf-opto** este
Parola: [redacted]

Identificati-va pe server, cu parola, cat mai rapid, pentru confirmare.

Memorati acest mesaj intr-un loc sigur, pentru utilizare ulterioara

---

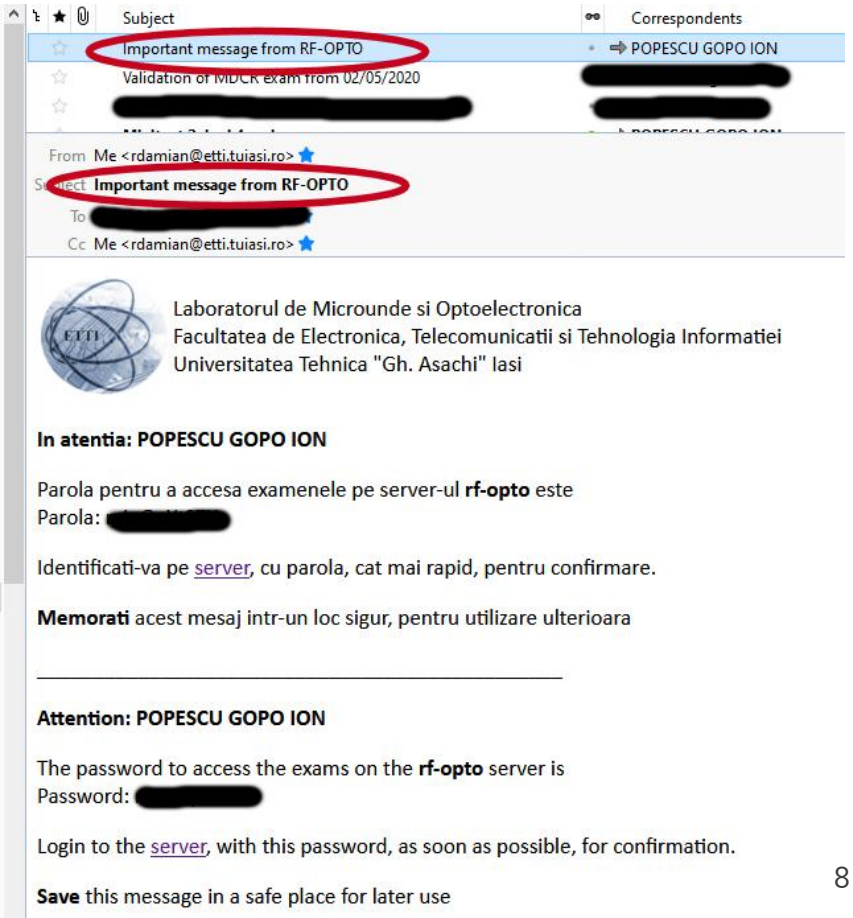
Attention: POPESCU GOPO ION

The password to access the exams on the **rf-opto** server is
Password: [redacted]

Login to the server, with this password, as soon as possible, for confirmation.

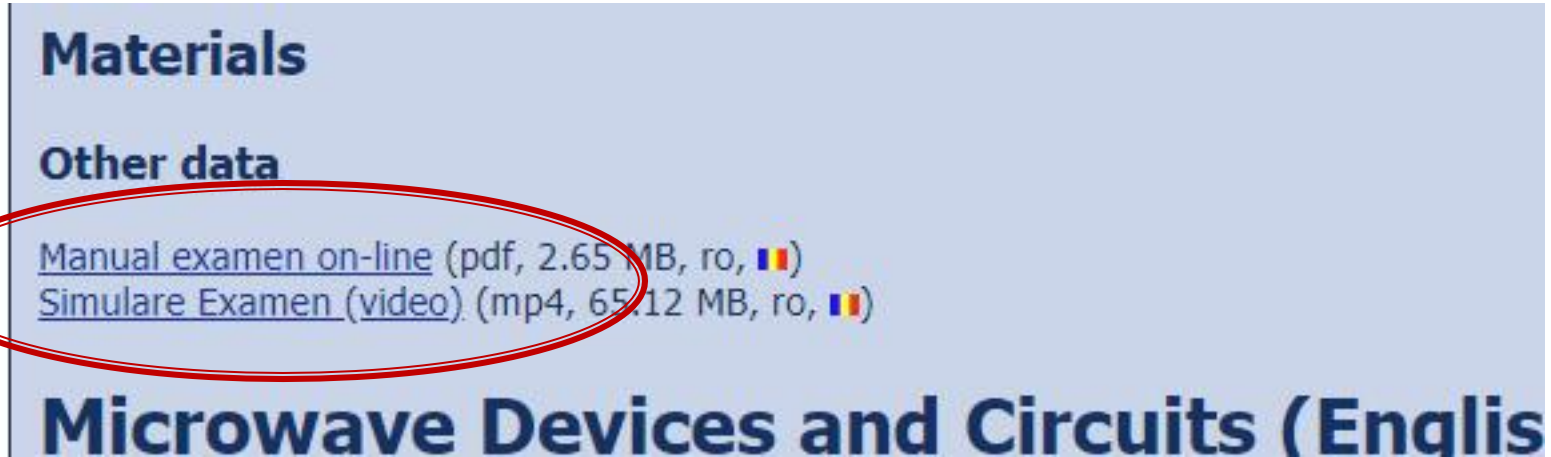
Save this message in a safe place for later use

Reply Reply all Forward



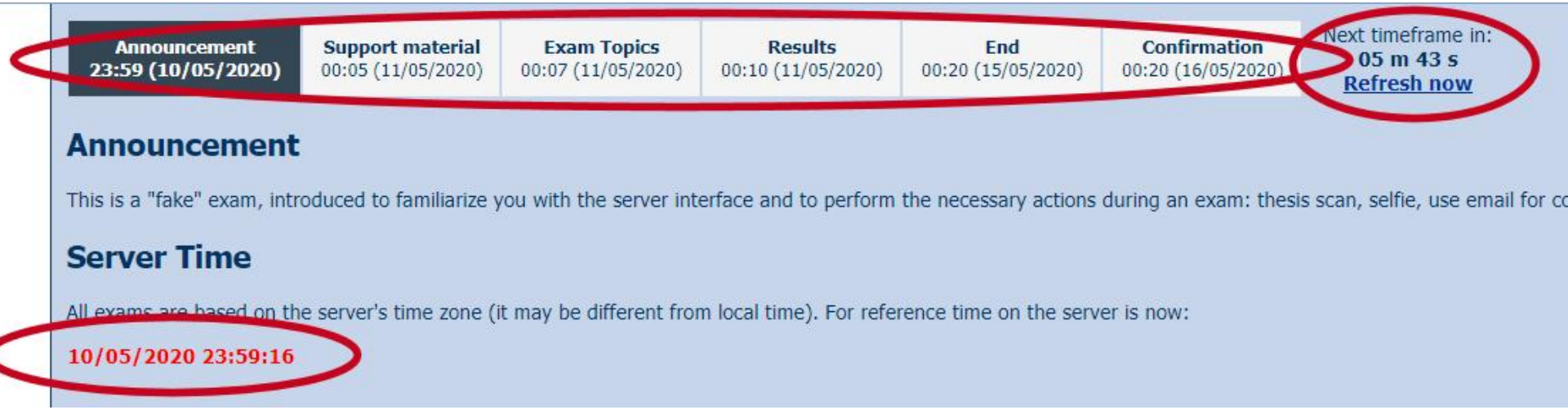
Manual examen online

- The online exam app used for:
  - lectures (attendance)
  - laboratory
  - project
  - examinations



Examen online

- always against a **timetable**
  - long period (lecture attendance/laboratory results)
  - short period (tests: 15min, exam: 2h)



Email addresses

- Team representative
  - list of **active** email addresses for all students
    - can be @student.etti.tuiasi.ro (also @gmail @yahoo etc.)
  - **rdamian@etti.tuiasi.ro**

2022/2023

Project

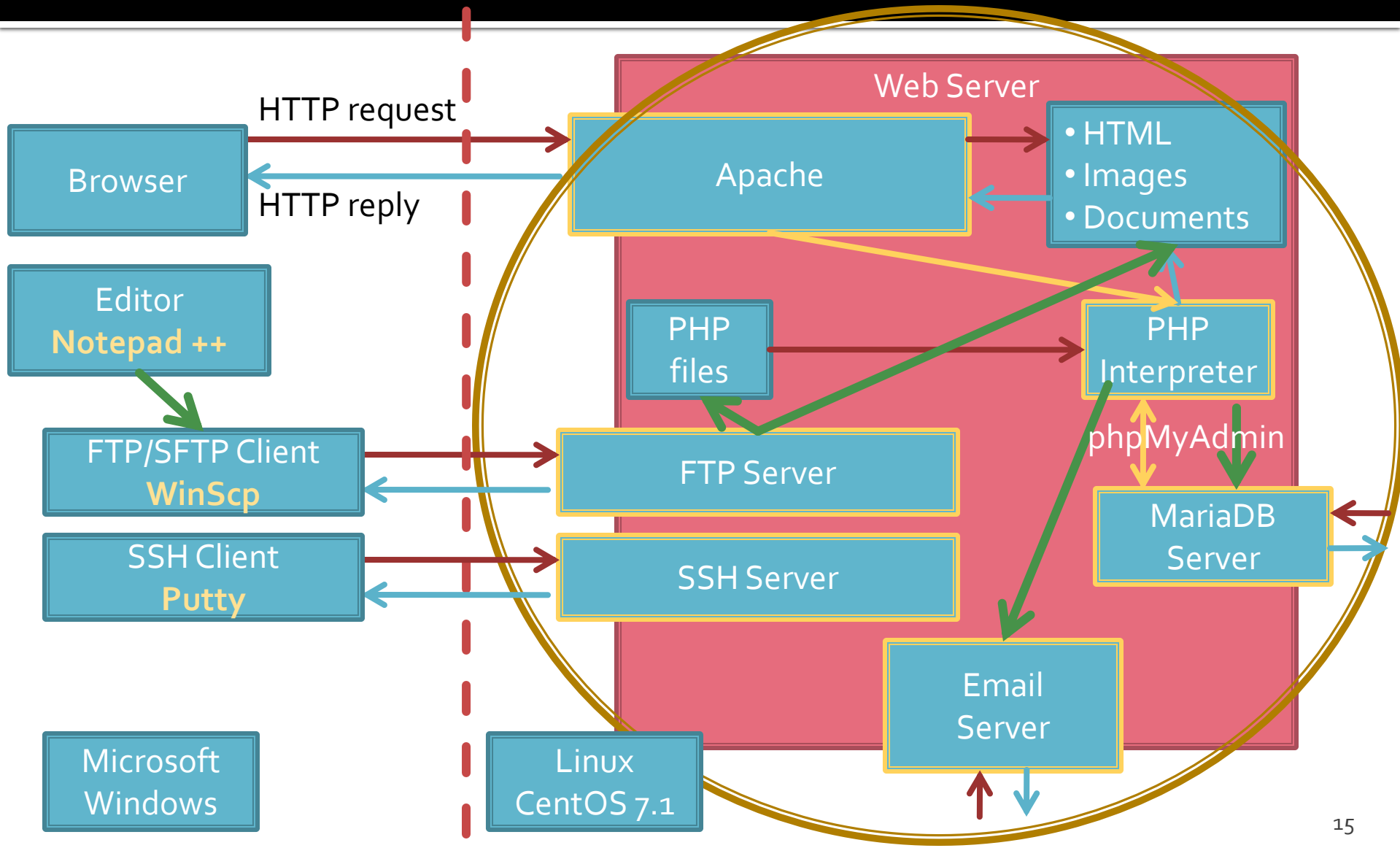
Project

- Submission: **On-site**
- Presentation (in front of the colleagues) + files submission
- 3 files
  - **1 *.pdf** (print-screen while using the application, short usage instructions, a mini-user manual for the application)
  - **1 *.sql** (backup of the database required to run the application)
  - archive of the application (inside: files *.php, *.jpg, folder tree etc., archived: ***.zip, *.7z** etc.)

Project grading

- **(2p)** the application runs on the **reference server** (can be downloaded from rf-opto: Ubuntu, php 7 or CentOS 7, php 5): extract files from the ***.zip** archive in a folder on the server, restore database from the ***.sql** backup file
- **(2p)** the ***. pdf** file containing the user manual exists and is appropriate for the submitted application
- **(2p)** the application **flowchart** has been submitted and contains appropriate data
- **(4p)** presentation on-site of the **application**

Using LAMP


Web Server
HTTP request
HTTP reply
Browser
Apache
• HTML
• Images
• Documents
Editor
Notepad ++
PHP
files
PHP
Interpreter
phpMyAdmin
FTP/SFTP Client
WinScp
FTP Server
MariaDB
Server
SSH Client
Putty
SSH Server
Email
Server
Microsoft
Windows
Linux
CentOS 7.1

Using LAMP

- differences from a Windows computer
  - system commands difficult
    - command prompt, SSH, Putty
  - files submitted by FTP
    - Copy/Paste unavailable
  - administration of MySql server:
    - using PhpMyAdmin (preloaded)
    - using other software on the host computer (MySQL Workbench)

Using LAMP – Advantages

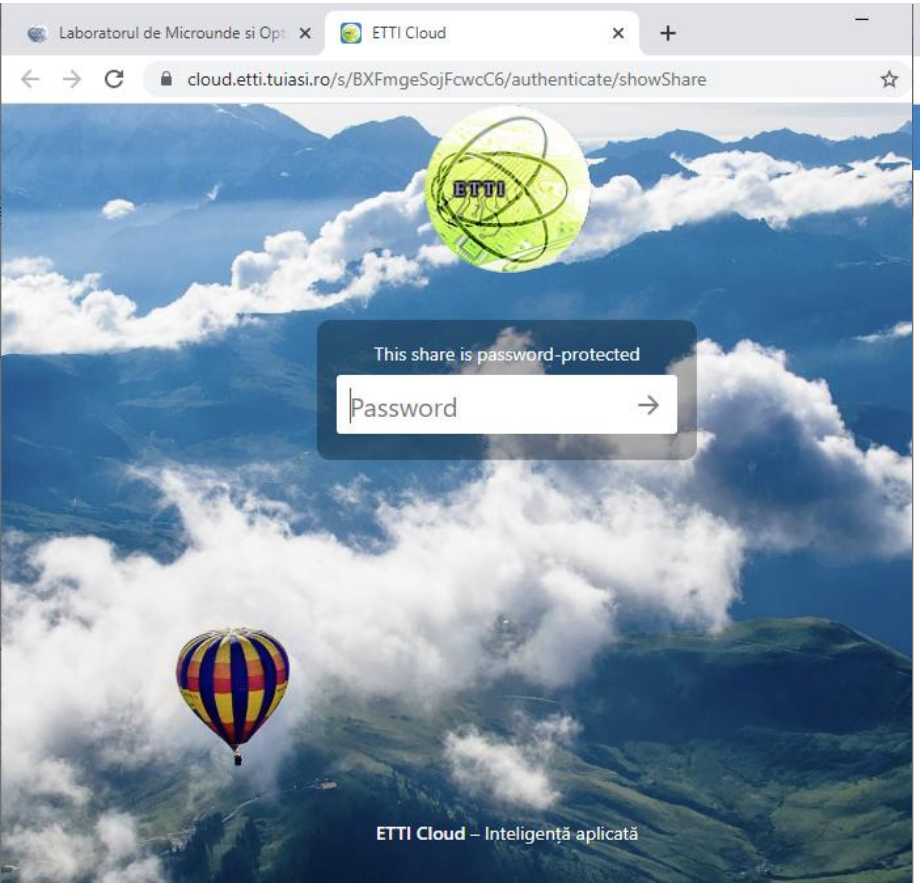
- Advantages
  - Available applications have newer versions (**2020 ~**)
    - CentOS/7.1, Apache/2.4.6, PHP/5.4.16, MariaDB/5.5.44, PhpMyAdmin/4.4.15
    - Ubuntu/20.04, Apache/ 2.4.41, PHP/ 7.4.3, MariaDB/ 10.3.31, PhpMyAdmin/4.9.5
  - Available applications very similar with real life hosting solutions
    - SSH
    - FTP
    - Email
      - for full functionaly the network interface for the VM must be changed **Host-only** -> **Bridged**

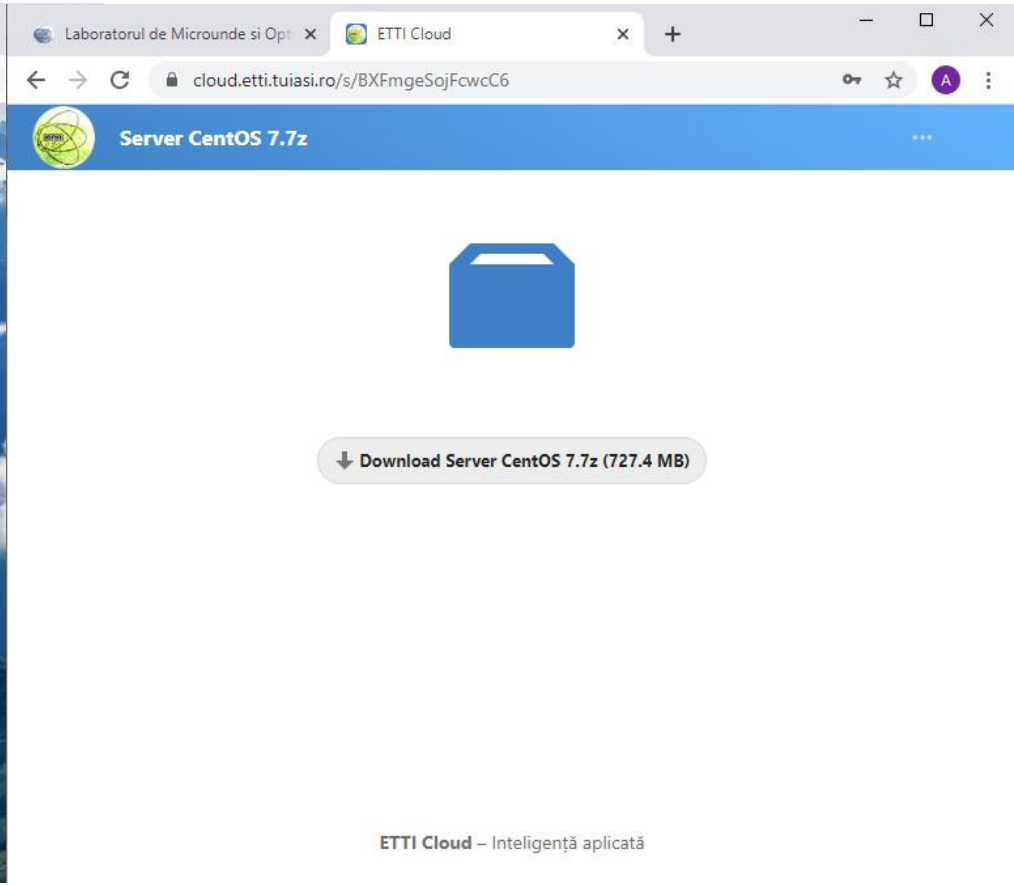
Reference Server

- rf-opto.etti.tuiasi.ro > Master > Web Design

Reference Server

- Cloud ETTI: **RF-opto3#**

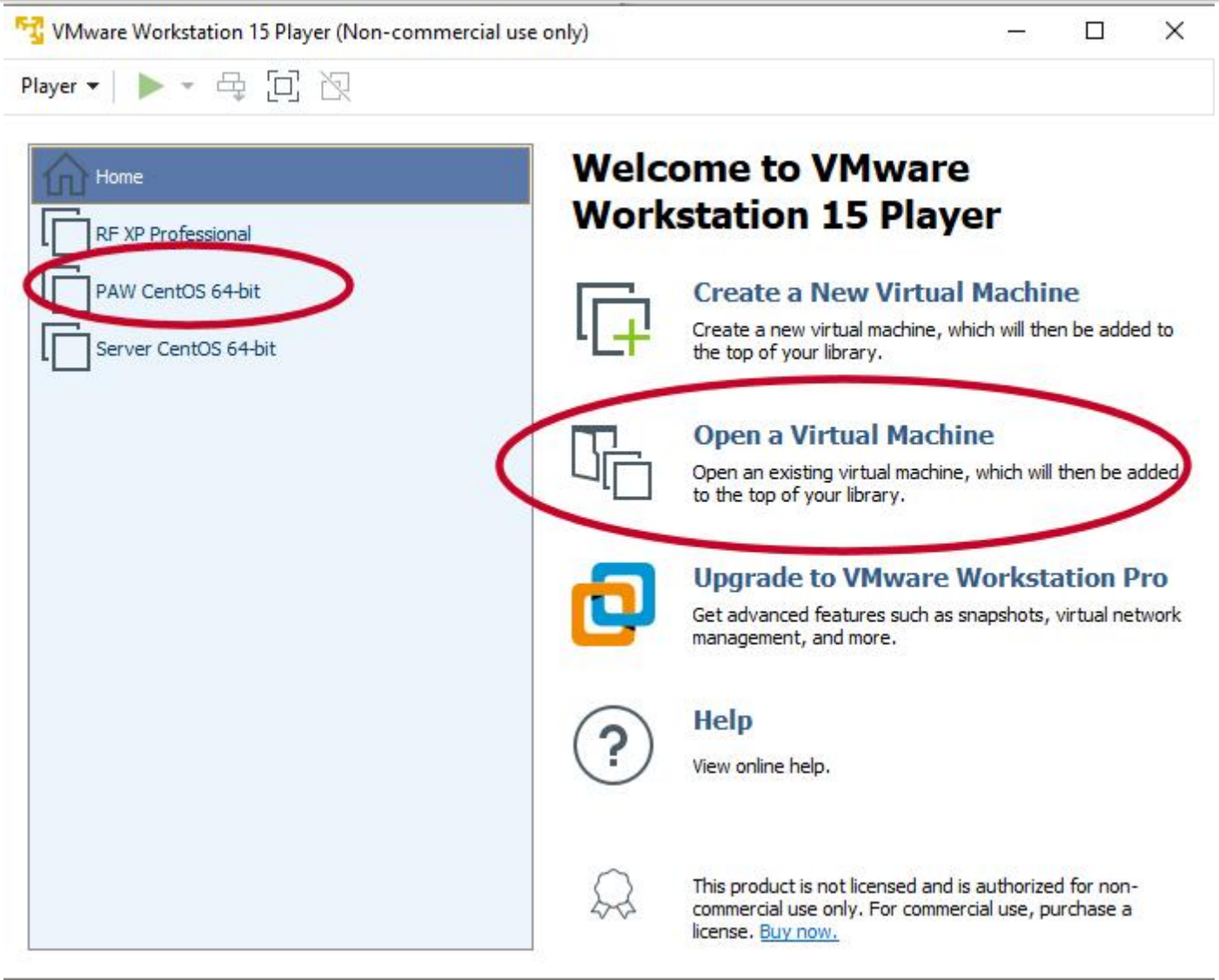




Reference Server

- Virtual Machine
- VMware Workstation Player Windows/Linux
  - Free (non-commercial use)
  - https://www.vmware.com/products/workstation-player/workstation-player-evaluation.html

Reference Server



Possible problems

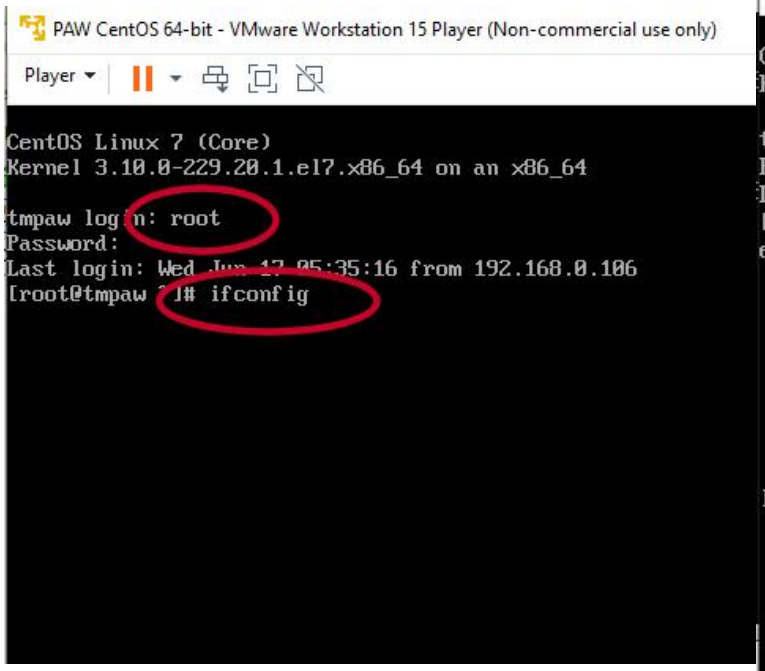
- Current VMWare Player runs **only** on **64bit** operating systems Windows/Linux
  - for 32bit operating systems previous (**certified originals**) can be made available on rf-opto
- The host computer **must** enable **Hardware Virtualization**
  - Hardware Virtualization is enabled in BIOS, depending on the PC manufacturer: Processor, Chipset, Northbridge
  - Options name: VT-x, AMD-V, Vanderpool, Hyper-V, SVM, Intel Virtualization Technology. if available: Intel VT-d, AMD IOMMU
- VM archive requires **7zip** native to the target operating system

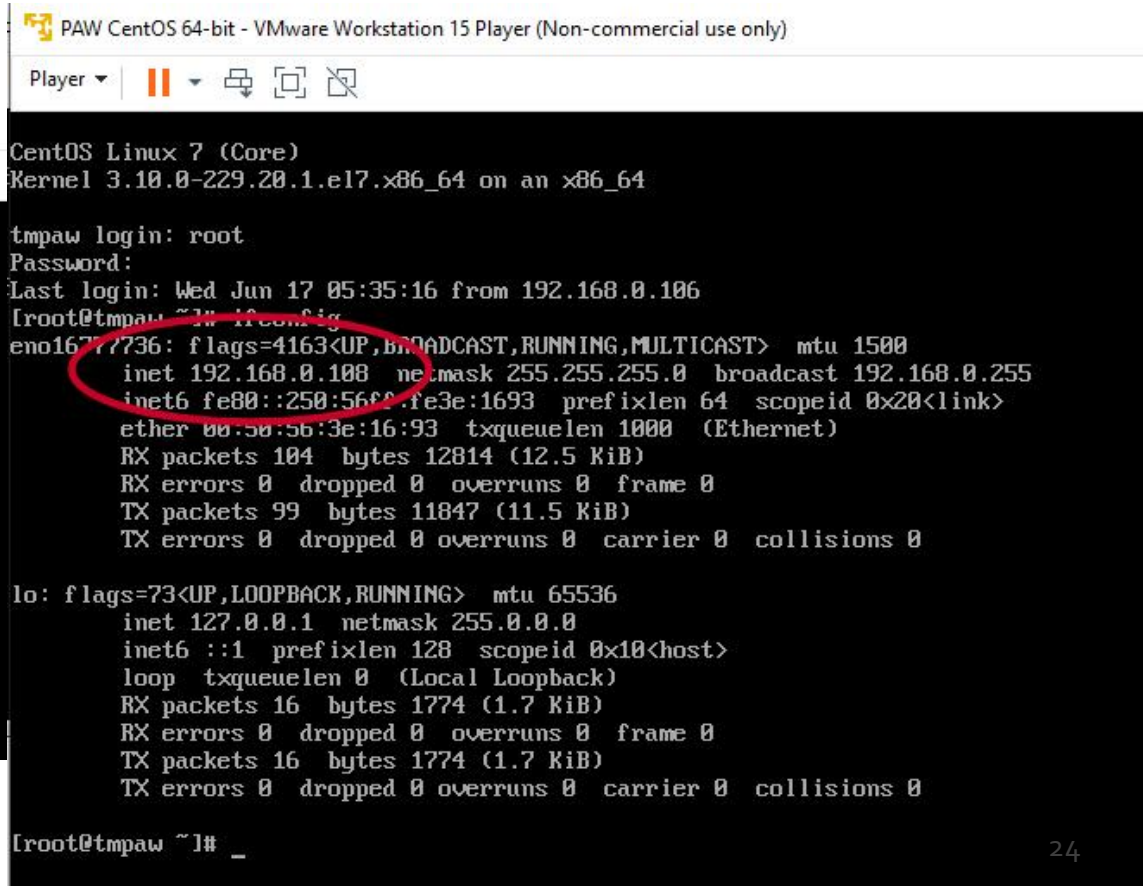
Support applications

- WinSCP (FTP client, free)
  - https://winscp.net/eng/download.php
- Notepad ++ (text editor, advanced, free)
  - https://notepad-plus-plus.org/downloads/
- Putty (remote access)
  - https://www.putty.org/
- MySQL Workbench (gratuit, cont Oracle)
  - https://www.mysql.com/products/workbench/

IP address

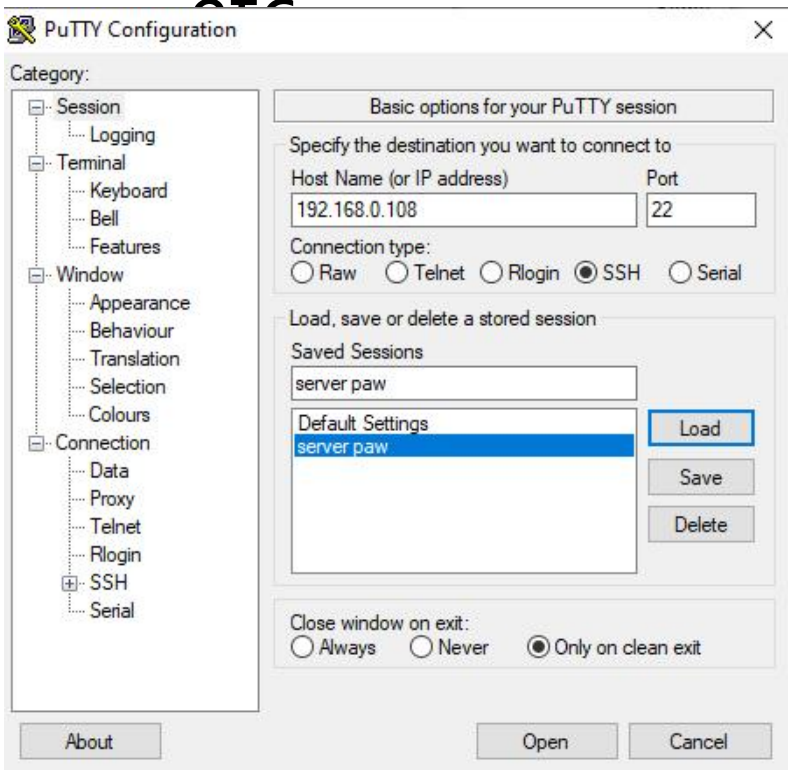
- login, ifconfig
- Ctrl + Alt + mouse

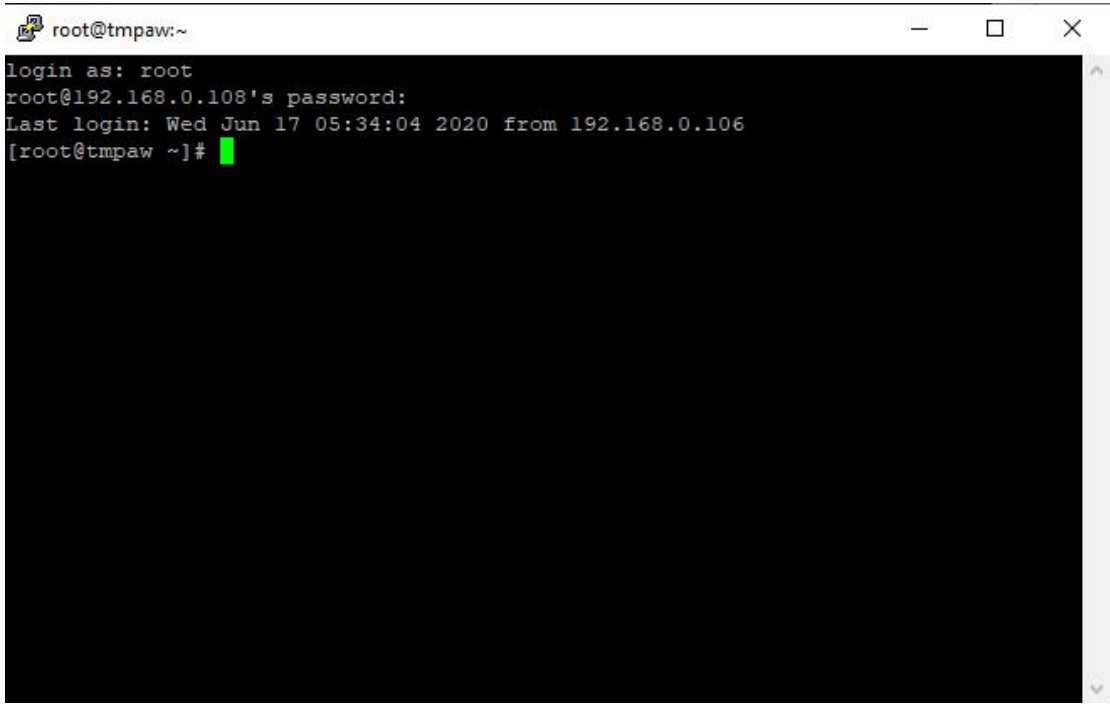




Putty

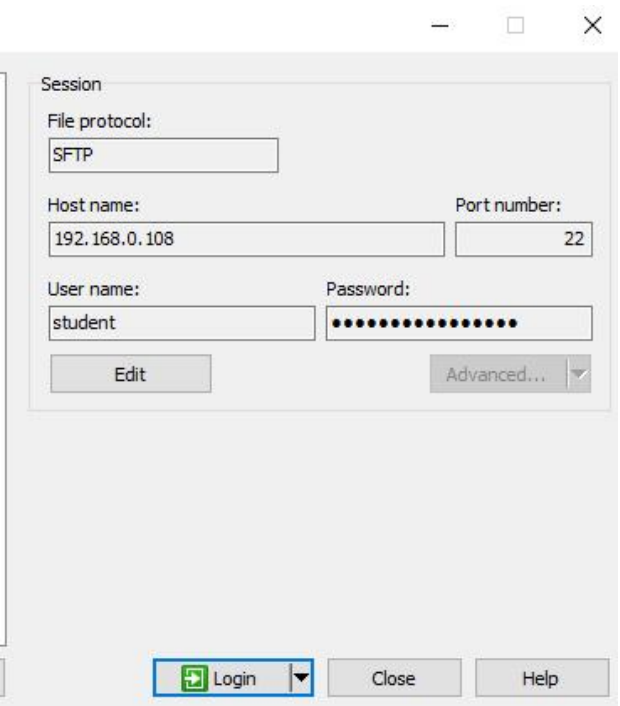
- putty.exe
- avoids mouse capture (CentOS), copy/paste etc

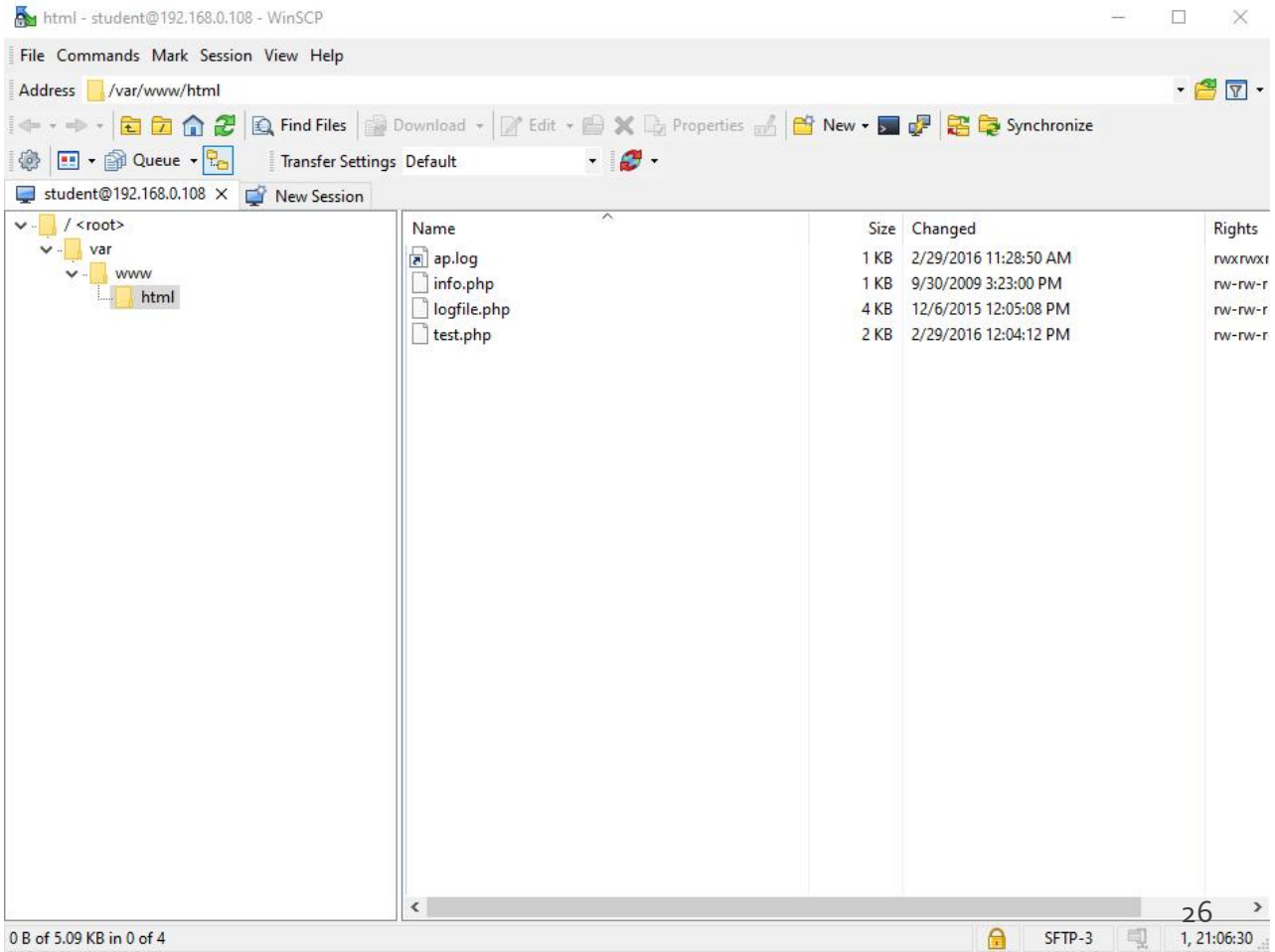




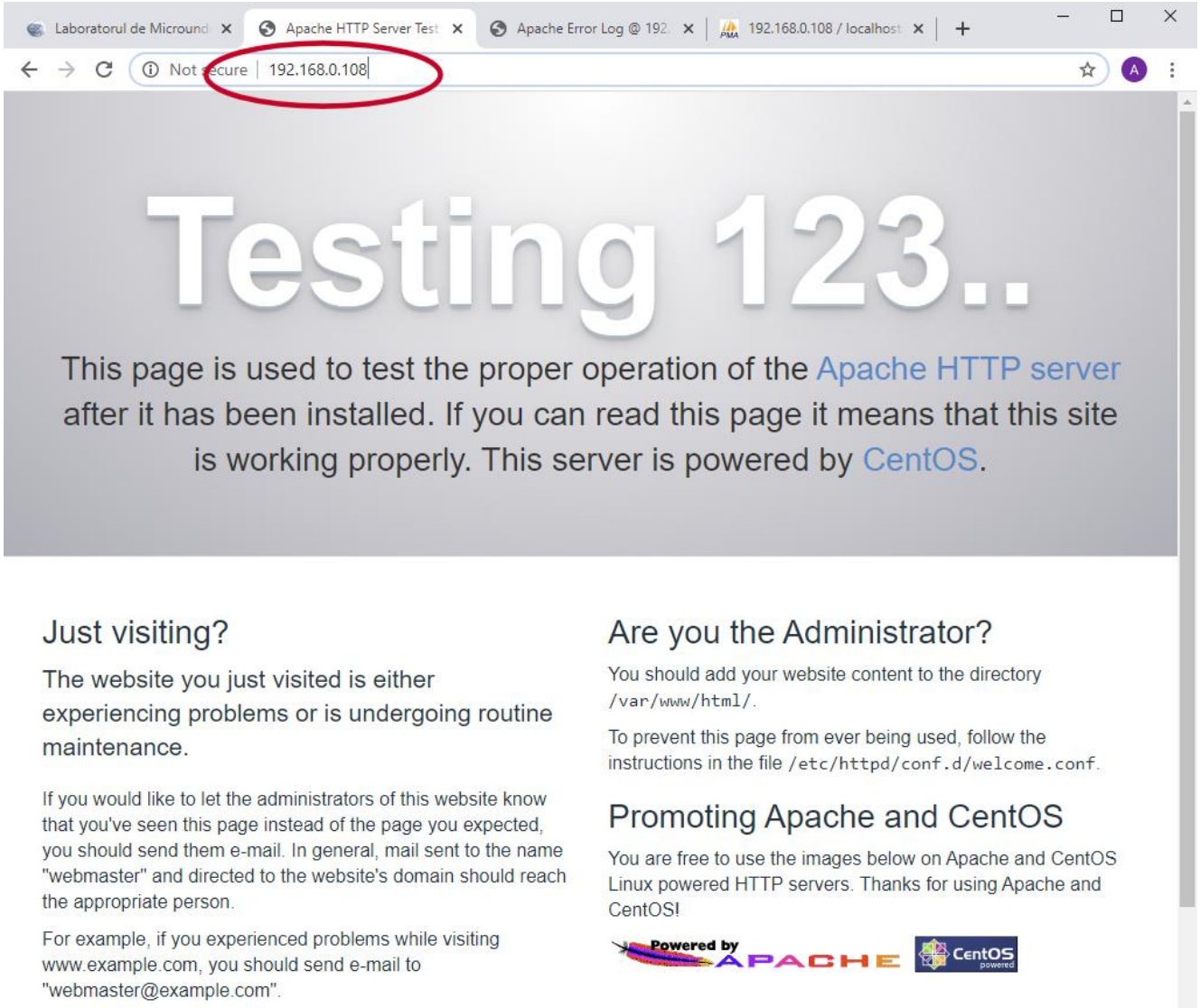
WinSCP

- FTP client
- upload files

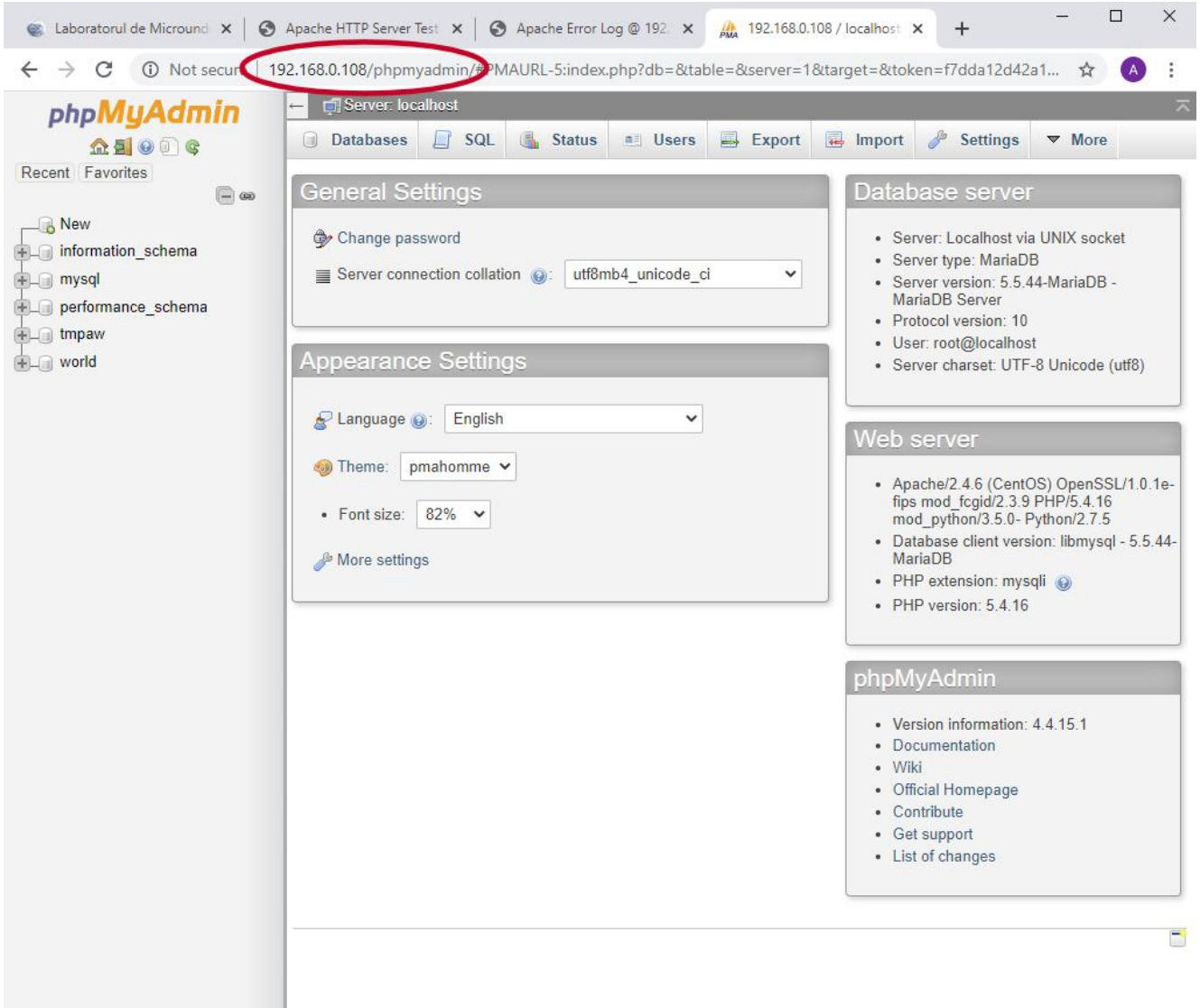




Browser

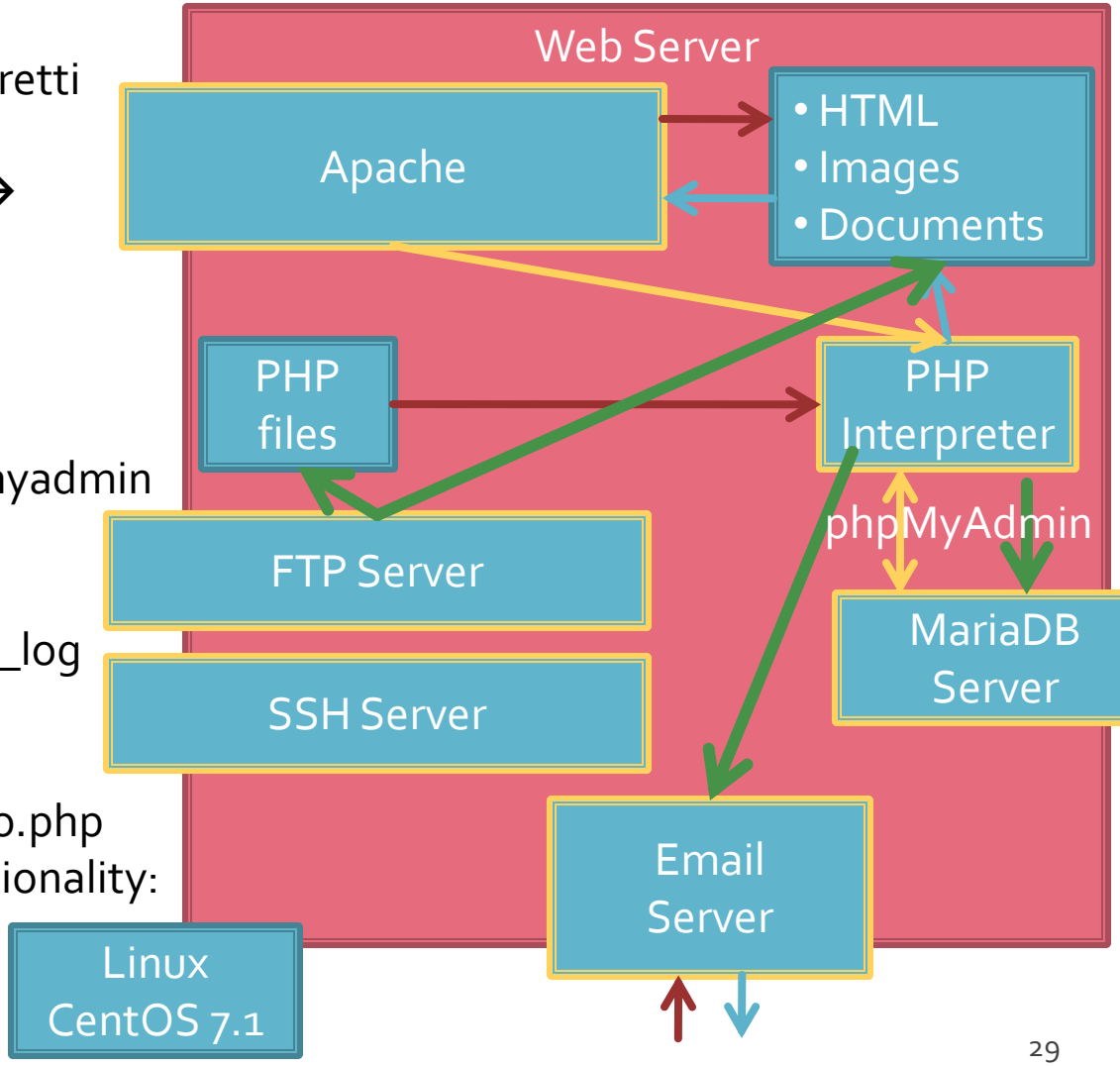

Laboratorul de Microunde
Apache HTTP Server Test
Apache Error Log @ 192.
192.168.0.108 / localhost
Not secure
192.168.0.108
Testing 123..
This page is used to test the proper operation of the Apache HTTP server after it has been installed. If you can read this page it means that this site is working properly. This server is powered by CentOS.
Just visiting?
The website you just visited is either experiencing problems or is undergoing routine maintenance.
If you would like to let the administrators of this website know that you've seen this page instead of the page you expected, you should send them e-mail. In general, mail sent to the name "webmaster" and directed to the website's domain should reach the appropriate person.
For example, if you experienced problems while visiting www.example.com, you should send e-mail to "webmaster@example.com".
Are you the Administrator?
You should add your website content to the directory /var/www/html/.
To prevent this page from ever being used, follow the instructions in the file /etc/httpd/conf.d/welcome.conf.
Promoting Apache and CentOS
You are free to use the images below on Apache and CentOS Linux powered HTTP servers. Thanks for using Apache and CentOS!
Powered by APACHE
CentOS powered

Server MySQL/MariaDB



Using LAMP

1. login → root:masterrc / paw:masteretti
2. ifconfig → 192.168.30.5
3. putty.exe → 192.168.30.5 → SSH → root:masterrc (remote login)
4. [other linux command line]
5. FTP → Winscp → SFTP → student:masterrc@192.168.30.5
6. MySql → http://192.168.30.5/phpmyadmin → root:masterrc / root:masteretti
7. Apache Error Log →
7a. putty → nano /var/log/httpd/error_log
7b. http://192.168.30.5/logfile.php (nonstandard)
8. PHP info → http://192.168.30.5/info.php
9. if DHCP service stops Apache functionality: service httpd restart

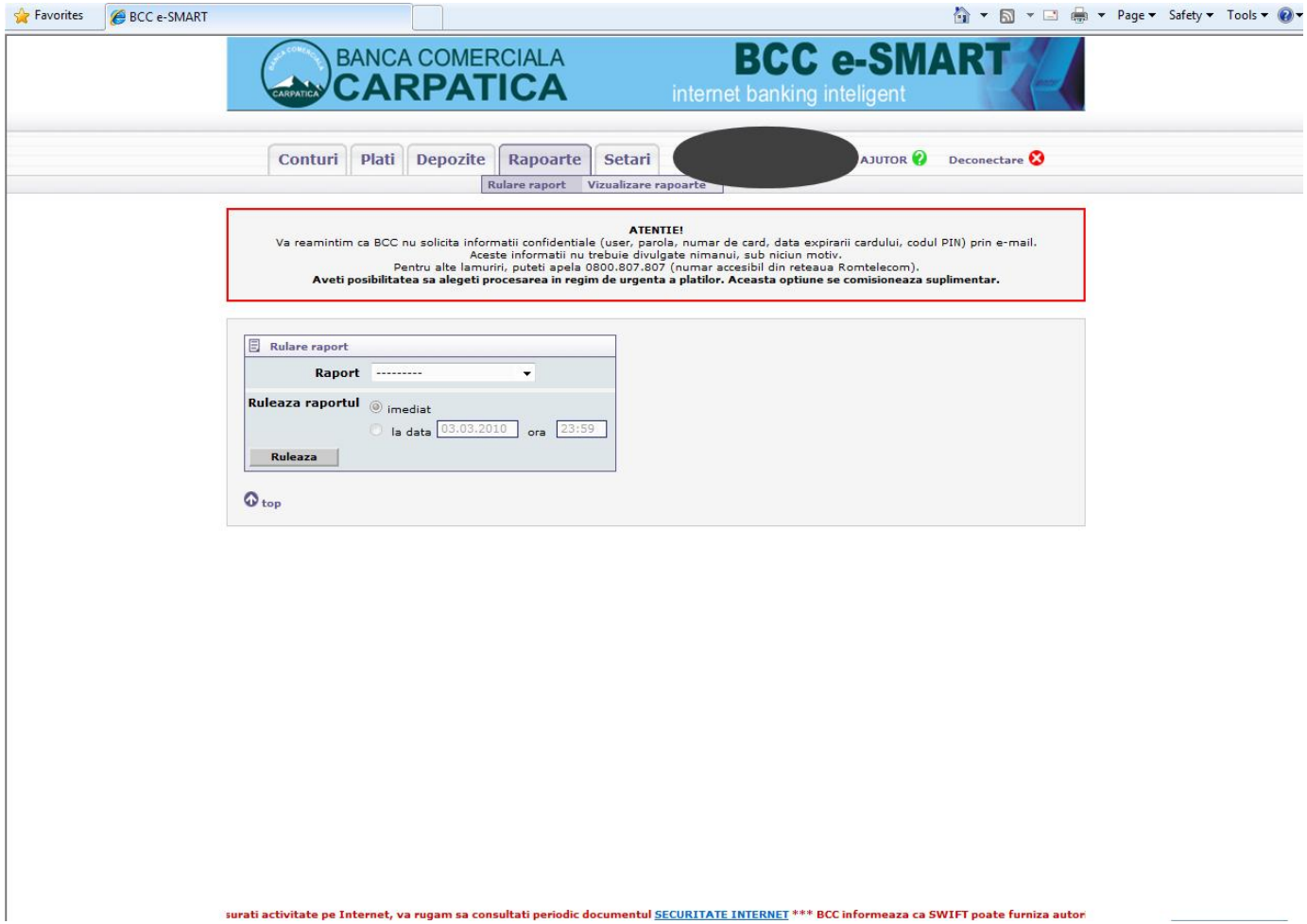


LAMP Reference Server

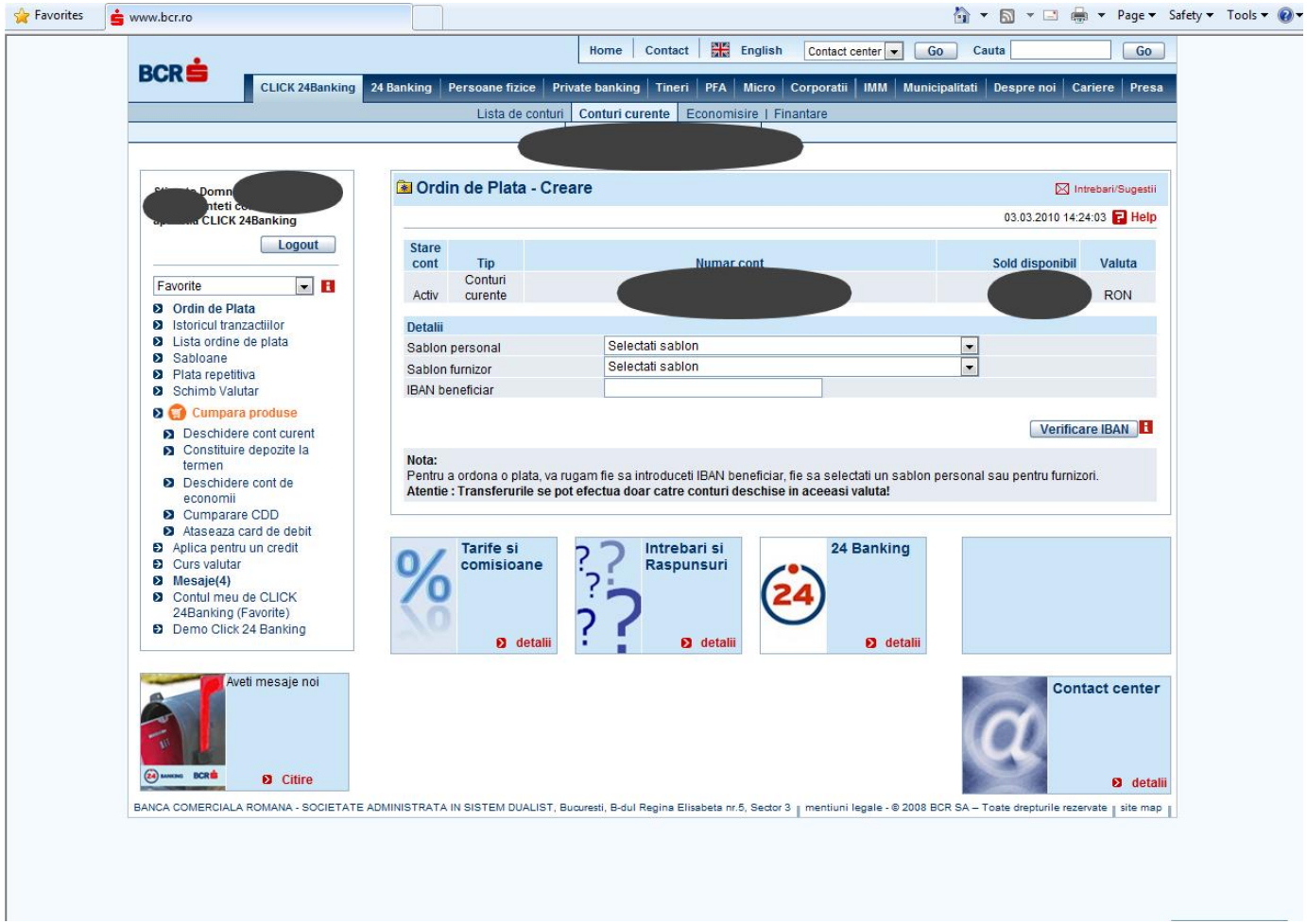
- Linux, two variants
  - Centos 7.1
    - PHP 5.4.16
    - MariaDB 5.5.44
    - Apache 2.4.6
    - **root**/student:masterrc
  - Ubuntu 20.04 (**recommended**)
    - PHP 7.4.3
    - MariaDB 10.3.31
    - Apache 2.4.41
    - **paw**/student:masteretti
    - correction **paw FTP access**:
      - sudo usermod -a -G upload paw
      - sudo chmod -R 775 /var/www

Introduction

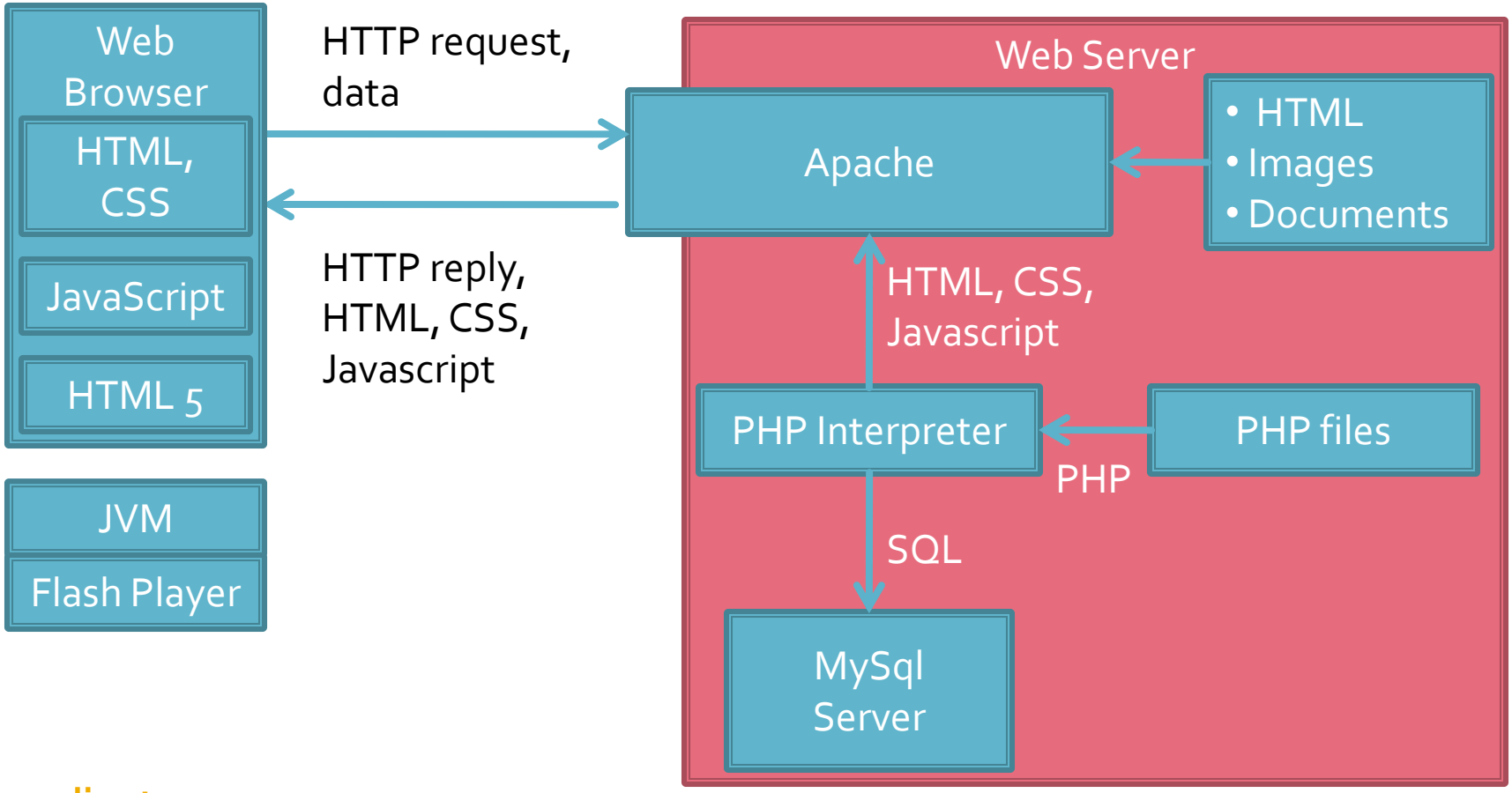
Applications



Applications



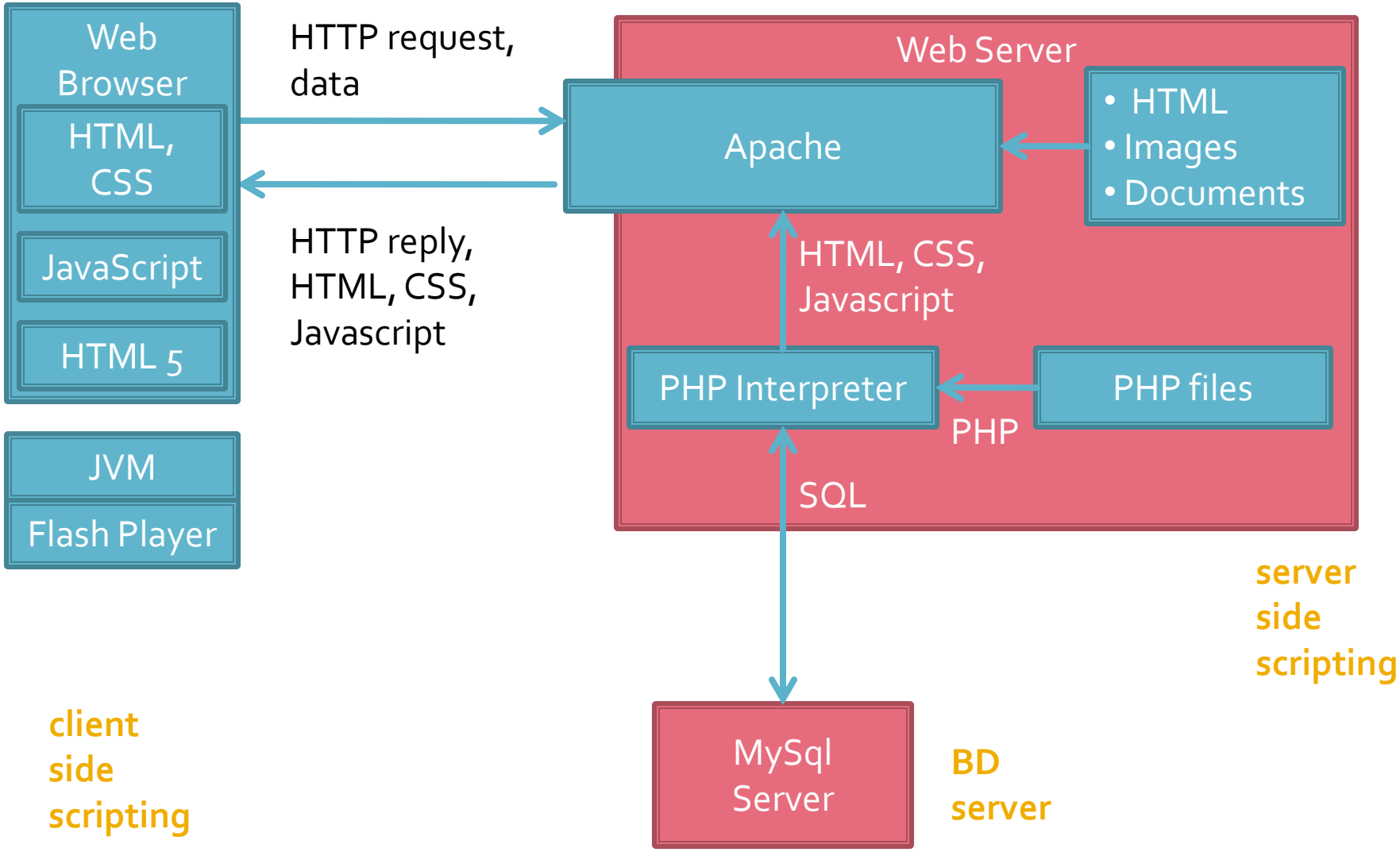
Client/Server Scripting



client side scripting

server side scripting

Client/Server Scripting



Necessity

```
        <td><?php echo  $row['Documente'];?> </td>
        <td><?php echo $row['user_creat'];?> </td>
        <td class="smaller"><a href="control_lot.php?id=-<?php echo $row['ID_LOT'];?>">dezactiveaza</a><br /><a href=
"control_lot.php?id=<?php echo $row['ID_LOT'];?>">modifica</a></td>
    </tr>
  <?php $index++;
    } while ( $row = mysql_fetch_assoc($result));?>
</table><?php
}
else
    {
    echo "<p>Nu exista loturi active</p>";
    }
?>

<p class="title">Loturi inactive</p>
<?php
$query = "SELECT l.*, c.`nume_user` AS `user_creat`
        FROM `lot` AS l
        LEFT JOIN `users` AS c ON (l.`User`=c.`id_user`)
        WHERE l.`Activ` = 0 ORDER BY l.`ID_LOT` DESC";
$result = mysql_query($query);
$total=0;
if ($result && (mysql_num_rows($result) > 0))
    {
    $total=mysql_num_rows($result);
    $row = mysql_fetch_assoc($result);
    }
if ($total>0)
{?>
<table align="center">
  <tr class="lista_titlu">
```

Necessity

E:\Documents\Pagini Web\Safir dep\lista_lot.php - Notepad++

File Edit Search View Encoding Language Settings Tools Macro Run Plugins Window ?

logfile.php lista_lot.php

```
<?php }?>

<div id="maincontent"><!-- InstanceBeginEditable name="Continut" -->
<p><span class="title">Adauga</span><br/>
  <a href="control_lot.php?id=0">Lot nou</a></p>
<p class="title">Loturi active</p>
<?php
$query = "SELECT l.*, c.`nume_user` AS `user_creat`
        FROM `lot` AS l
        LEFT JOIN `users` AS c ON (l.`User`=c.`id_user`)
        WHERE l.`Activ` <> 0 ORDER BY l.`ID_LOT` DESC";
$result = mysql_query($query);
$total=0;
if ($result && (mysql_num_rows($result) > 0))
    {
    $total=mysql_num_rows($result);
    $row = mysql_fetch_assoc($result);
    }
if ($total>0)
{?>
<table align="center">
  <tr class="lista_titlu">
    <td align="center">Nr.</td>
      <td>Numar</td>
      <td>Data</td>
      <td>Nr. pui</td>
      <td>Gr. pui</td>
      <td>Nr. pui morti</td>
      <td>Gr. pui morti</td>
      <td>Ferma</td>
      <td>Documente</td>
      <td>Creat</td>
      <td>Comenzi</td>
    </tr>
  <?php $index=1;
  do { ?>
  <tr class="<?php if ($index%2) echo "lista_impar"; else echo "lista_par";?>">
    <td align="center"><?php echo $index; ?> </td>
        <td><?php echo $row['Numar'];?> </td>
        <td><?php echo date("d/m/Y", strtotime($row['Data']));?> </td>
        <td><?php echo  $row['Pui'];?> </td>
        <td><?php echo  $row['Greutate'];?> </td>
        <td><?php echo  $row['Pui_Morti'];?> </td>
        <td><?php echo  $row['Greutate_Morti'];?> </td>
        <td><?php echo  $row['Ferma'];?> </td>
        <td><?php echo  $row['Documente'];?> </td>
```

HTML

E:\Documents\Pagini Web\Safir dep\lista_lot.php - Notepad++

File Edit Search View Encoding Language Settings Tools Macro Run Plugins Win

logfile.php | lista_lot.php

```
539  <?php }?>
540
541  <div id="maincontent"><!-- InstanceBeginEditable name="Conti
542  <p><span class="title">Adauga</span><br/>
543    <a href="control_lot.php?id=0">Lot nou</a></p>
544  <p class="title">Loturi active</p>
545  <?php
546  $query = "SELECT l.*, c.`nume_user` AS `user_creat`
547          FROM `lot` AS l
548          LEFT JOIN `users` AS c ON (l.`User`=c.`id_user`)
549          WHERE l.`Activ` <> 0 ORDER BY l.`ID_LOT` DESC";
550  $result = mysql_query($query);
551  $total=0;
552  if ($result && (mysql_num_rows($result) > 0))
553      {
554      $total=mysql_num_rows($result);
555      $row = mysql_fetch_assoc($result);
556      }
557  if ($total>0)
558  {?>
559  <table align="center">
560    <tr class="lista_titlu">
561      <td align="center">Nr.</td>
562        <td>Numar</td>
563        <td>Data</td>
564        <td>Nr. pui</td>
565        <td>Gr. pui</td>
566        <td>Nr. pui morti</td>
567        <td>Gr. pui morti</td>
568        <td>Ferma</td>
569        <td>Documente</td>
570        <td>Creat</td>
571        <td>Comenzi</td>
572      </tr>
573    <?php $index=1;
574    do { ?>
575    <tr class="<?php if ($index%2) echo "lista_i
576      <td align="center"><?php echo $index; ?> </td>
577          <td><?php echo $row['Numar'];?> </td>
578          <td><?php echo date("d/m/Y", strtotime($row['Data'])
579          <td><?php echo  $row['Pui'];?> </td>
580          <td><?php echo  $row['Greutate'];?> </td>
581          <td><?php echo  $row['Pui_Morti'];?> </td>
582          <td><?php echo  $row['Greutate_Morti'];?> </td>
583          <td><?php echo  $row['Ferma'];?> </td>
584          <td><?php echo  $row['Documente'];?> </td>
```

```
<table align="center">
  <tr class="lista_titlu">
    <td align="center">Nr.</td>
      <td>Numar</td>
      <td>Data</td>
      <td>Nr. pui</td>
      <td>Gr. pui</td>
```

HTML + PHP

E:\Documents\Pagini Web\Safir dep\lista_lot.php - Notepad++

File Edit Search View Encoding Language Settings Tools Macro Run Plugins Window ?

logfile.php | lista_lot.php

```
539  <?php }?>
540
541  <div id="maincontent"><!-- InstanceBeginEditable name="Continut" -->
542  <p><span class="title">Adauga</span><br/>
543    <a href="control_lot.php?id=0">Lot nou</a></p>
544  <p class="title">Loturi active</p>
545  <?php
546  $query = "SELECT l.*, c.`nume_user` AS `user_creat`
547          FROM `lot` AS l
548          LEFT JOIN `users` AS c ON (l.`User`=c.`id_user`)
549          WHERE l.`Activ` <> 0 ORDER BY l.`ID_LOT` DESC";
550  $result = mysql_query($query);
551  $total=0;
552  if ($result && (mysql_num_rows($result) > 0))
553      {
554      $total=mysql_num_rows($result);
555      $row = mysql_fetch_assoc($result);
556      }
557  if ($total>0)
558  {?>
559  <table align="center">
560    <tr class="lista_titlu">
561      <td align="center">Nr.</td>
562        <td>Numar</td>
563        <td>Data</td>
564        <td>Nr. pui</td>
565        <td>Gr. pui</td>
566        <td>Nr. pui morti</td>
567        <td>Gr. pui morti</td>
568        <td>Ferma</td>
569        <td>Documente</td>
570        <td>Creat</td>
571        <td>Comenzi</td>
572      </tr>
573    <?php $index=1;
574    do { ?>
575    <tr class="<?php if ($index%2) echo "lista_impar"; else echo "lista_par";
576      <td align="center"><?php echo $index; ?> </td>
577          <td><?php echo $row['Numar'];?> </td>
578          <td><?php echo date("d/m/Y", strtotime($row['Data']));?> </td>
579          <td><?php echo  $row['Pui'];?> </td>
580          <td><?php echo  $row['Greutate'];?> </td>
581          <td><?php echo  $row['Pui_Morti'];?> </td>
582          <td><?php echo  $row['Greutate_Morti'];?> </td>
583          <td><?php echo  $row['Ferma'];?> </td>
584          <td><?php echo  $row['Documente'];?> </td>
```

```
<tr class="<?php if ($index%2) echo "lista_impar"; else echo "lista_p
  <td align="center"><?php echo $index; ?> </td>
      <td><?php echo $row['Numar'];?> </td>
      <td><?php echo date("d/m/Y", strtotime($row['Data']));?> <
      <td><?php echo  $row['Pui'];?> </td>
      <td><?php echo  $row['Greutate'];?> </td>
```

HTML + PHP + SQL

E:\Documents\Pagini Web\Safir dep\lista_lot.php - Notepad++

File Edit Search View Encoding Language Settings Tools Macro Run Plugins Window ?

logfile.php | lista_lot.php

```
539 <?php }?>
540
541 <div id="maincontent"><!-- InstanceBeginEditable name="Continut" -->
542 <p><span class="title">Adauga</span><br/>
543   <a href="control_lot.php?id=0">Lot nou</a></p>
544 <p class="title">Loturi active</p>
545 <?php
546 $query = "SELECT l.*, c.`nume_user` AS `user_creat`
547         FROM `lot` AS l
548         LEFT JOIN `users` AS c ON (l.`User`=c.`id_user`)
549         WHERE l.`Activ` <> 0 ORDER BY l.`ID_LOT` DESC";
550 $result = mysql_query($query);
551 $total=0;
552 if ($result && (mysql_num_rows($result) > 0))
553     {
554     $total=mysql_num_rows($result);
555     $row = mysql_fetch_assoc($result);
556     }
557 if ($total>0)
558 {?>
559 <table align="center">
560   <tr class="lista_titlu">
561     <td align="center">Nr.</td>
562       <td>Numar</td>
563       <td>Data</td>
564       <td>Nr. pui</td>
565       <td>Gr. pui</td>
566       <td>Nr. pui morti</td>
567       <td>Gr. pui morti</td>
568       <td>Ferma</td>
569       <td>Documente</td>
570       <td>Creat</td>
571       <td>Comenzi</td>
572     </tr>
573   <?php $index=1;
574   do { ?>
575   <tr class="<?php if ($index%2) echo "lista_impar"; else echo "lista_par";?>">
576     <td align="center"><?php echo $index; ?> </td>
577         <td><?php echo $row['Numar'];?> </td>
578         <td><?php echo date("d/m/Y", strtotime($row['Data']));?> </td>
579         <td><?php echo  $row['Pui'];?> </td>
580         <td><?php echo  $row['Greutate'];?> </td>
581         <td><?php echo  $row['Pui_Morti'];?> </td>
582         <td><?php echo  $row['Greutate_Morti'];?> </td>
583         <td><?php echo  $row['Ferma'];?> </td>
584         <td><?php echo  $row['Documente'];?> </td>
```

```php
<?php
$query = "SELECT l.*, c.`nume_user` AS `user_creat`
        FROM `lot` AS l
        LEFT JOIN `users` AS c ON (l.`User`=c.`id_user`)
        WHERE l.`Activ` <> 0 ORDER BY l.`ID_LOT` DESC";
$result = mysql_query($query);
$total=0;
if ($result && (mysql_num_rows($result) > 0))
    {
    $total=mysql_num_rows($result);
    $row = mysql_fetch_assoc($result);
    }
```

HTML

- Offers **the logical structure** of the document
- Required
  - the **final result** of any type of programming for a distributed application web is almost exclusively HTML code (HTML structure eventually manipulated by "client side scripting"/Javascript)
- Curs 1 PAW 2021-2022 – Recapitulare HTML (RO + video)
- Course: Web Technologies (2012-2013) (EN)
  - http://rf-opto.etti.tuiasi.ro/internet.php
  - Web Technologies, Lecture 5
  - Web Technologies, Lecture 6

HTML 5

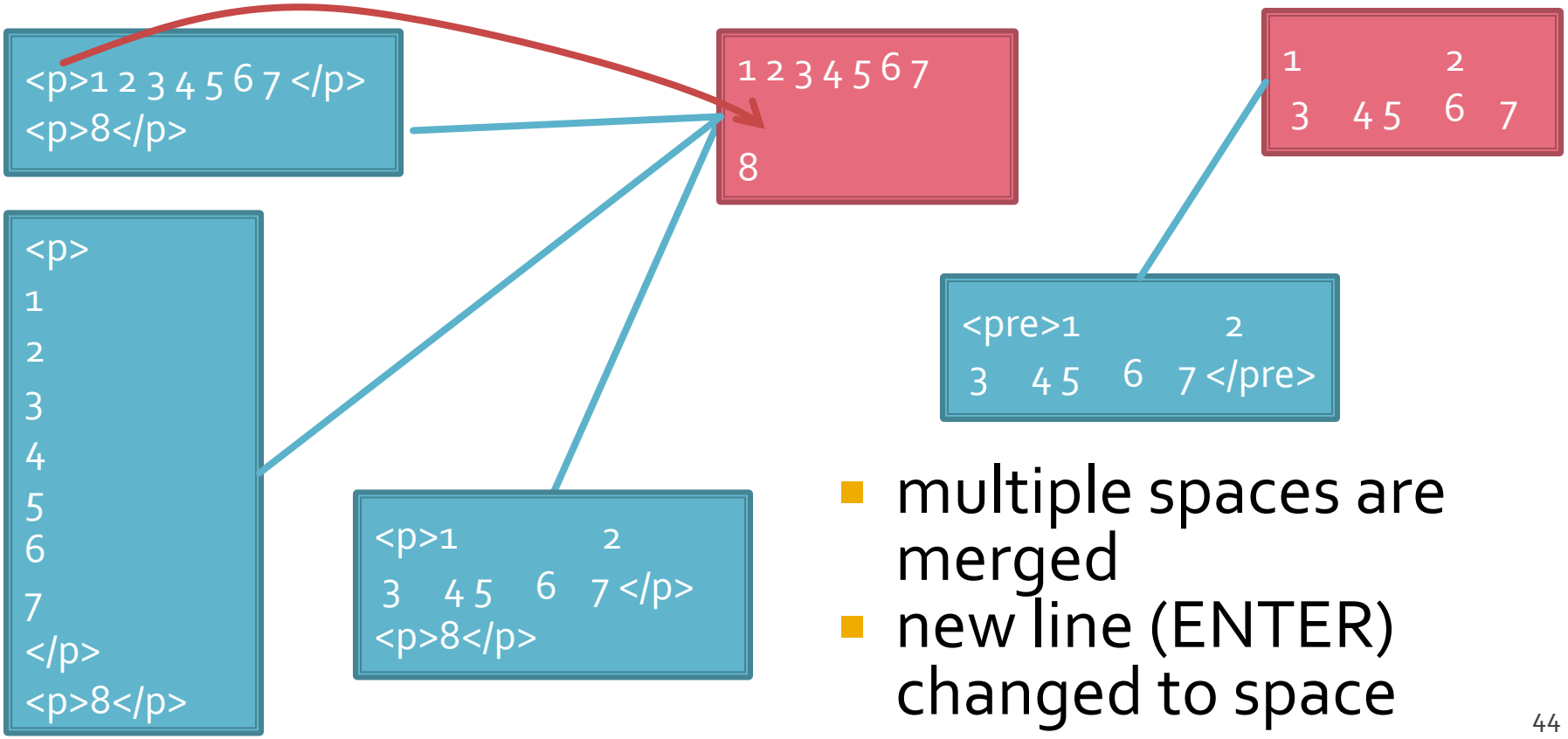
- (**Increasing!**) Support in browsers
  - Certain future
- Features
  - **Web Workers**: background threads for processing.
  - **Video**: Video becomes as easy as embedding an image.
  - **Canvas**: allows a web developer to render graphics on the fly.
  - **Application caches**: Web pages will start storing more and more information locally on the visitor's computer.
  - **Geolocation**: Best known for use on mobile devices, geolocation is coming with HTML5.

HTML Concepts 1

- An HTML document is an **ASCII** document (Notepad) containing **tags**, interpreted and displayed by the browser (View Source)
- Tags: (etichete, marcaje – RO), <>
  - individual: <X/>
    - ex:
 (
 - HTML)
  - container: <X> Any_Content</X>
    - ex: One paragraph
    - Tag **X** impose the way **"Any_Content"** will be part of the document/be displayed on the screen
    - most tags are container

HTML and Format

- Format of the source document (ASCII) is irrelevant
  - only exception: <pre>….</pre>



- multiple spaces are merged
- new line (ENTER) changed to space

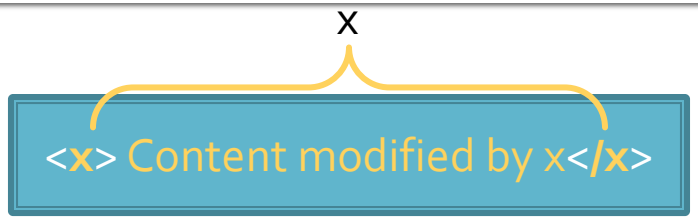
Attributes

- Options (properties) of the tag, used to detail the effect of that particular tag
- In container tags, introduced only in the starting tag
  - ceva
- Attributes are keywords and their name must be correctly spelled. (XML allows user defined attributes, but not HTML and XHTML)
- Attribute value, both:
  - keywords
  - user defined

Major differences XHTML vs. HTML

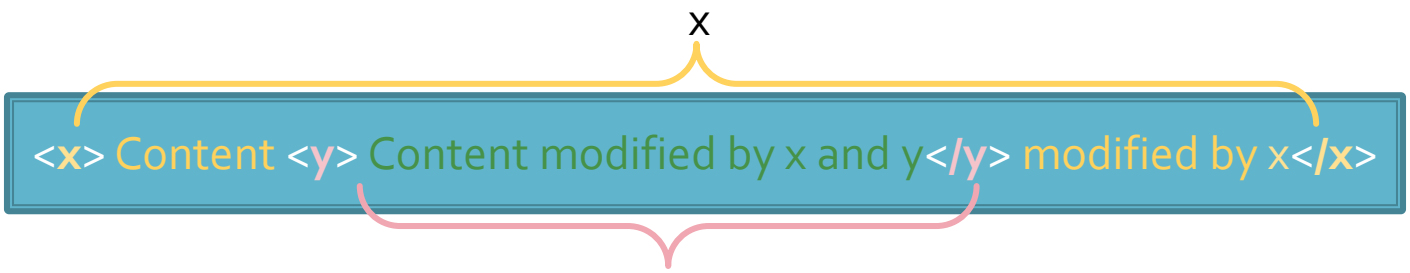
- Tag inclusion, mandatory
  - <X>....<Y>....</Y>.....</X>
  - <X>....<Y>....</X>.....</Y>
- Tags must be always closed
  - .... , <br />, <meta .... />
  - .... , <br>, <meta .... >
- Tags must be written in lower case
  - , <br />, <frameset>
  - <P>, <BR />, <FrAmesET>
- Attributes must be lowercase and their values written between quotation marks
  - , <table width="100">, <font color="red">
  - , <table width=100>, <font COLOR=red>
- All information must be enclosed inside <html>... </html> container tag

HTML Concepts 3

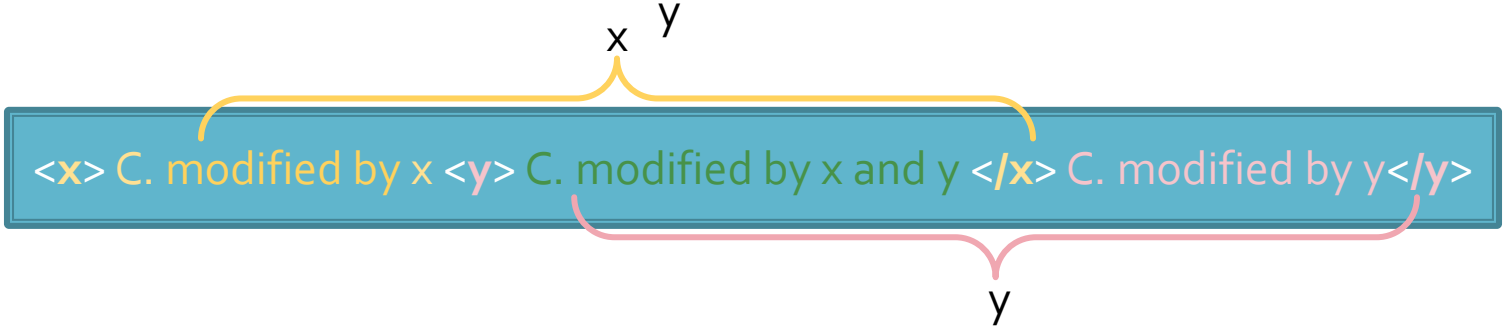


Legal in XHTML/HTML

Legal in XHTML/HTML

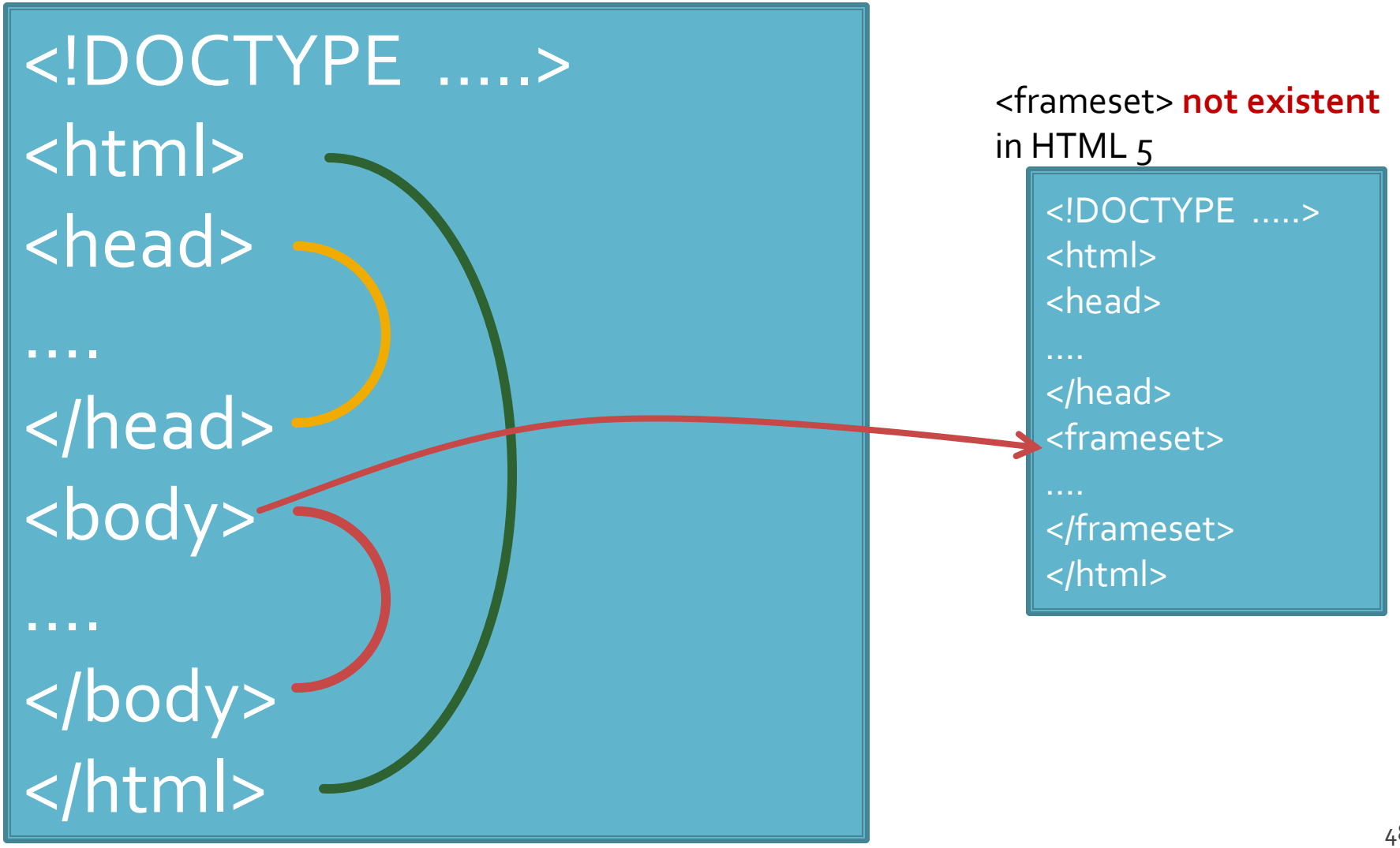


Legal in XHTML/HTML



Legal **only** in HTML 4 **not recommended**

Minimal HTML Document

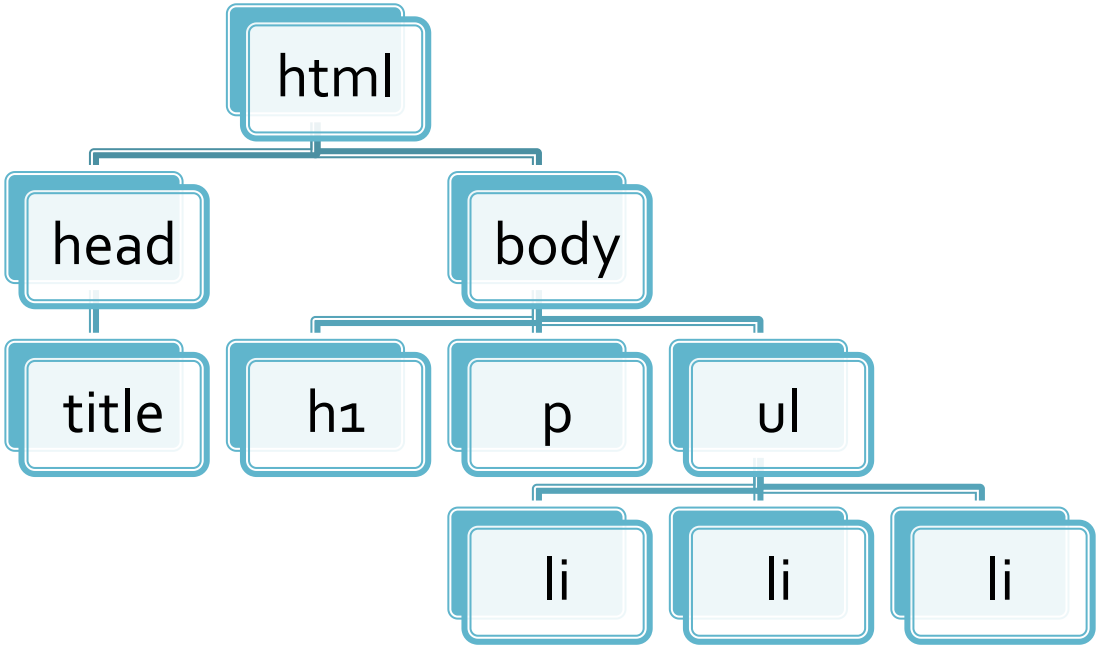


<frameset> **not existent** in HTML 5

```
<!DOCTYPE .....>
<html>
<head>
....
</head>
<frameset>
....
</frameset>
</html>
```

DOM

- DOM – Document Object Model: logical tree type structure



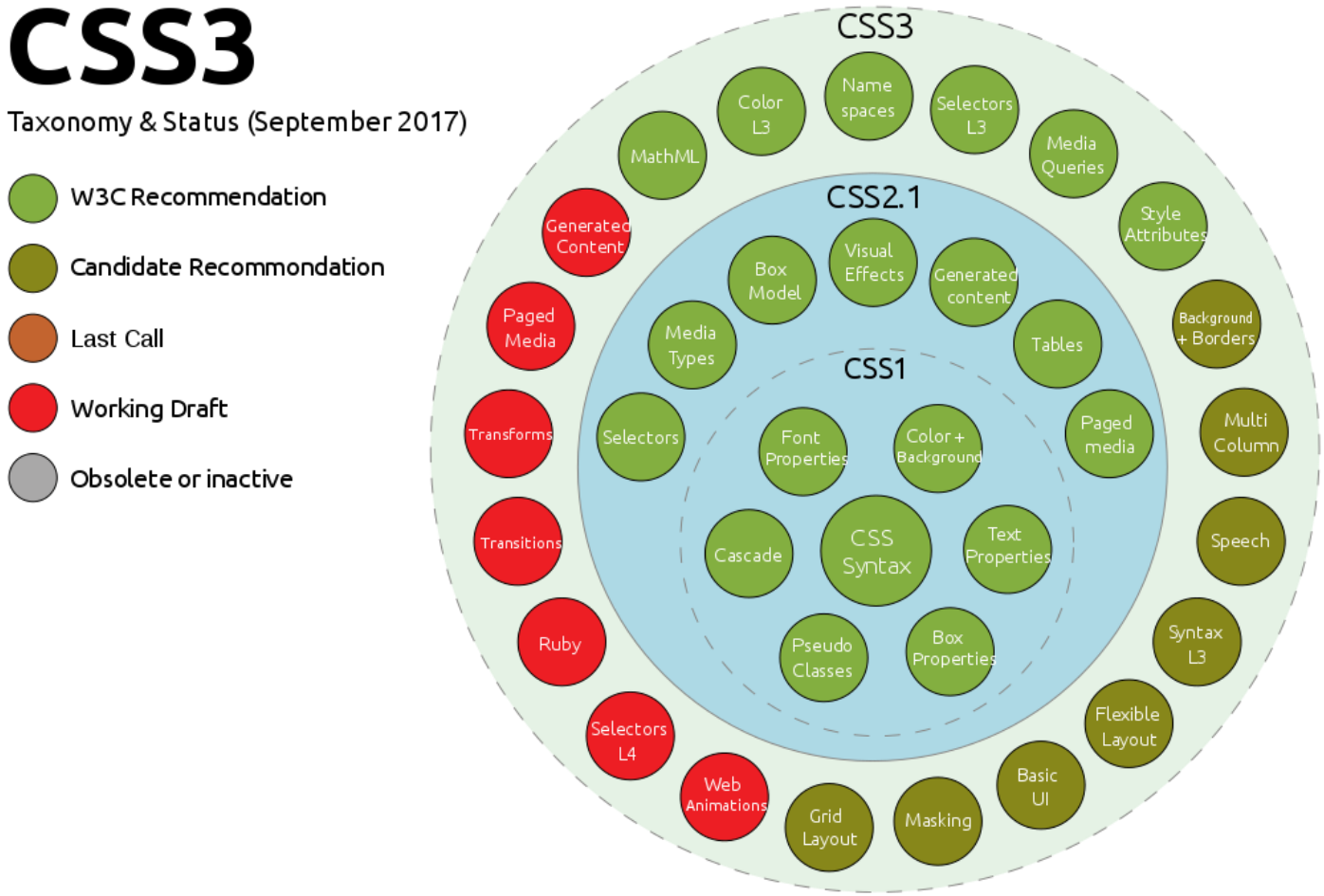

```
<html>
 <head>
  <title>pagina mea</title>
 </head>
 <body>
  <h1>Compozitori:</h1>
  <p>
  <ul>
   <li> elvis costello
   <li> johannes brahms
   <li> georges brassens
  </ul>
 </body>
</html>
```

CSS

- Cascading Style Sheets
- Introduced to separate the **content** of a document from its **presentation** (layout, colors, fonts)
- Allows:
  - Increased accessibility (same document can be displayed on multiple devices)
  - Multiple web pages can share formatting
  - Reduce complexity of content positioning

CSS

- Offers **the form** of the document



CSS vs. HTML

- HTML
  - **logical structure** of the document
- CSS
  - effective **form/shape** of the document
- HTML 5
  - HTML tags regarding the **form** (<font>, color="red") were introduced in HTML 3.2 and declared **deprecated** in HTML 4.01
    - **disappear** in HTML 5

CSS vs. HTML

```
<!DOCTYPE html PUBLIC
<html>
<!-- created 2003-12-12 -->
 <head>
  <title>sample</title>
 </head>
 <body>
  <p>Voluptatem accusantium
   totam rem aperiam.</p>
 </body>
</html>
```

HTML

```
h1 { color: white;
  background: orange;
  border: 1px solid bla
  padding: 0 0 0 0;
  font-weight: bold;
}
/* begin: seaside-theme */

body {
  background-color:white;
  color:black;
  font-family:Arial,sans-serif;
  margin: 0 4px 0 0;
  border: 12px solid;
}
```

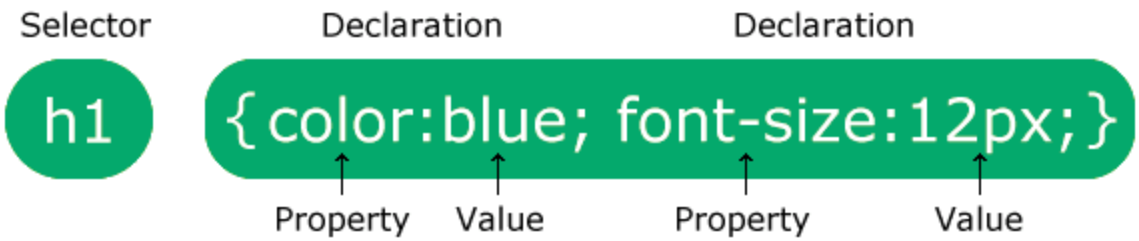
CSS

CSS concepts

- Three ways of specifying styles
  - External styles (External style sheet)
  - Internal   styles (Internal style sheet)
  - Inline styles (Inline style)
- Three entities which impose styles:
  - display device (browser default)
  - author of the document
  - reader of the document

CSS Concepts

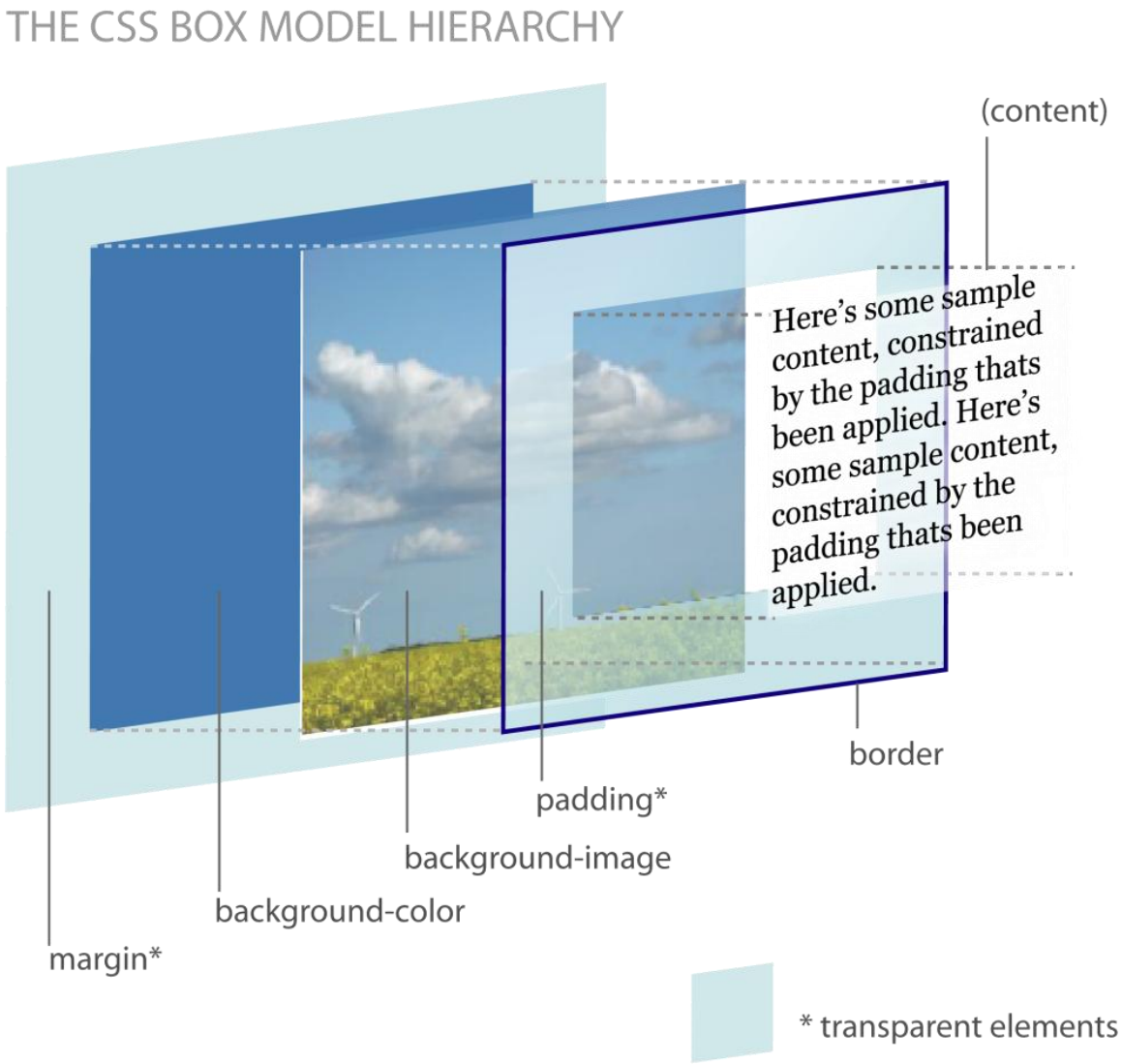
- A CSS rule: a selector and a declaration block:
  - Selector { “CSS declaration”; [“CSS declaration”;] }
- CSS declaration:
  - property:value;
- CSS Comments
  - Similar with C/C++ , PHP, etc.
  - Between “/*” and “*/”



CSS Selectors

- HTML element selector
  - introduced to modify the standard display of HTML tags
- CSS class Selector – "."
  - introduced to work in conjunction with the HTML attribute class="…"
  - useful for applying form uniformly to multiple elements in a document
- CSS id Selector – "#"
  - introduced to work in conjunction with the HTML attribute id="…"
  - useful for applying a specific form to a single element in a document

CSS Box Model



Usability rules

- Steve Krug: "**Don't Make Me Think, Revisited**"
- Users scan the pages, don't really read them
- Information must be reduced to the sufficient minimum in most places
- "If something is hard to use, I can live without it"
- Web users tend to act shark like
- Originality is not always recommended

CSS Zen Garden

- http://www.csszengarden.com/
- fixed HTML file
- changing the form **only** allowed by changing the CSS styles

CSS Zen Garden – HTML original

css Zen Garden

The Beauty of CSS Design

A demonstration of what can be accomplished visually through CSS-based design. Select any style sheet from th

Download the sample html file and css file

The Road to Enlightenment

Littering a dark and dreary road lay the past relics of browser-specific tags, incompatible DOMs, and broken CS

Today, we must clear the mind of past practices. Web enlightenment has been achieved thanks to the tireless ef

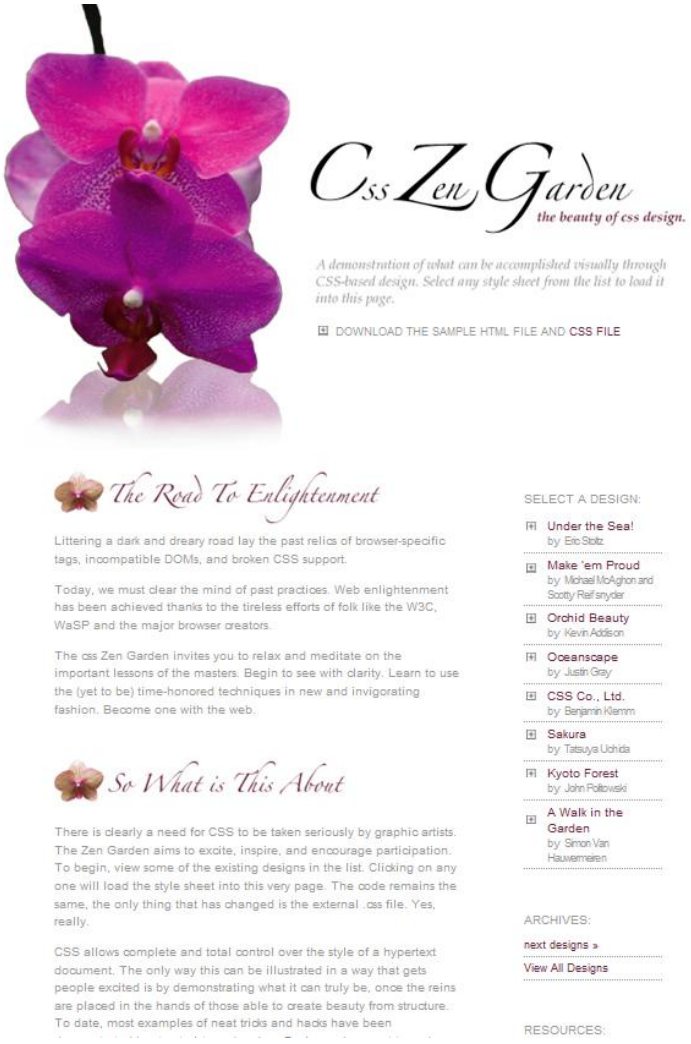
The css Zen Garden invites you to relax and meditate on the important lessons of the masters. Begin to see with
Become one with the web.

So What is This About?

There is clearly a need for CSS to be taken seriously by graphic artists. The Zen Garden aims to excite, inspire,
one will load the style sheet into this very page. The code remains the same, the only thing that has changed is th

CSS allows complete and total control over the style of a hypertext document. The only way this can be illustrate
placed in the hands of those able to create beauty from structure. To date, most examples of neat tricks and hac

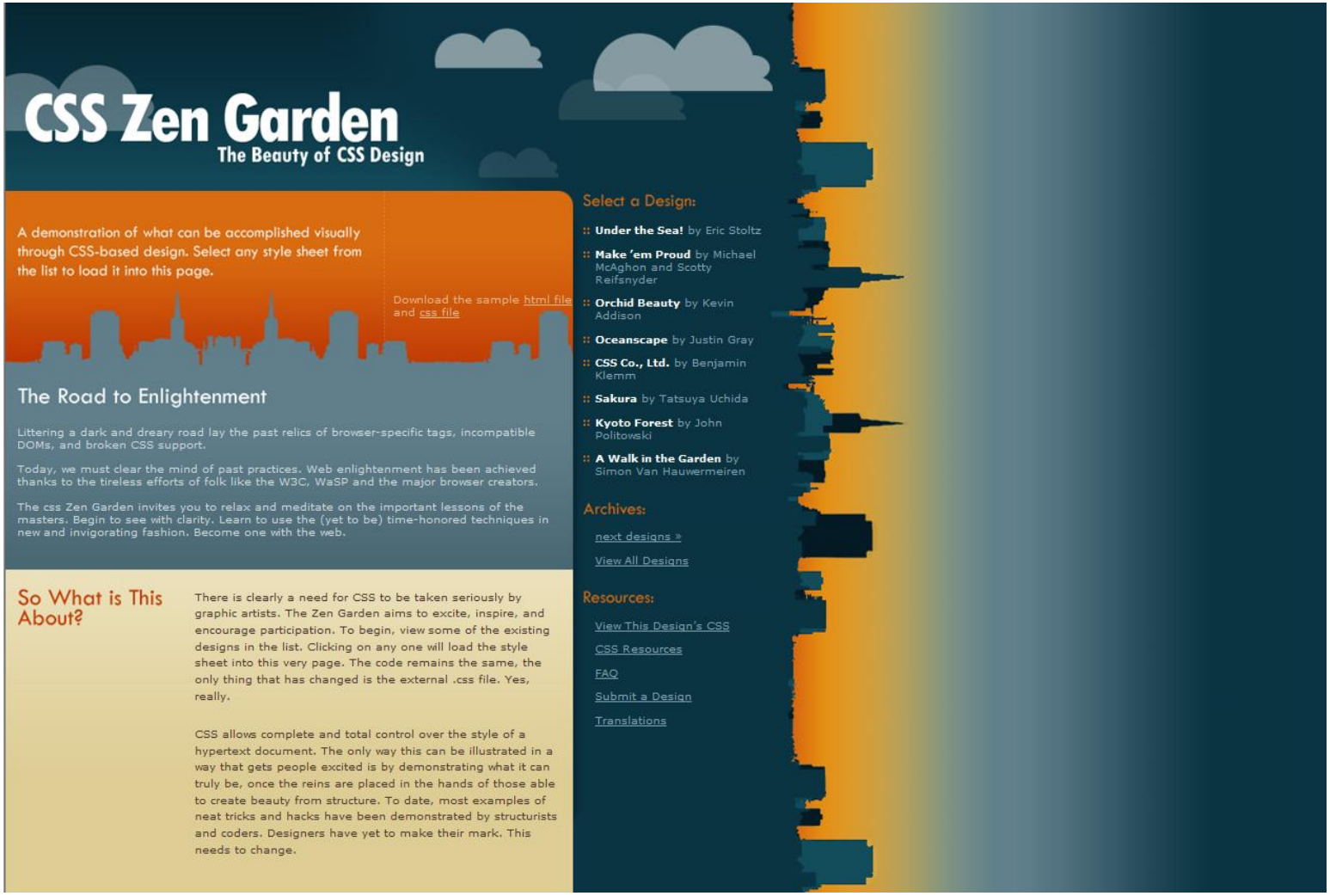
CSS Zen Garden



CSS Zen Garden

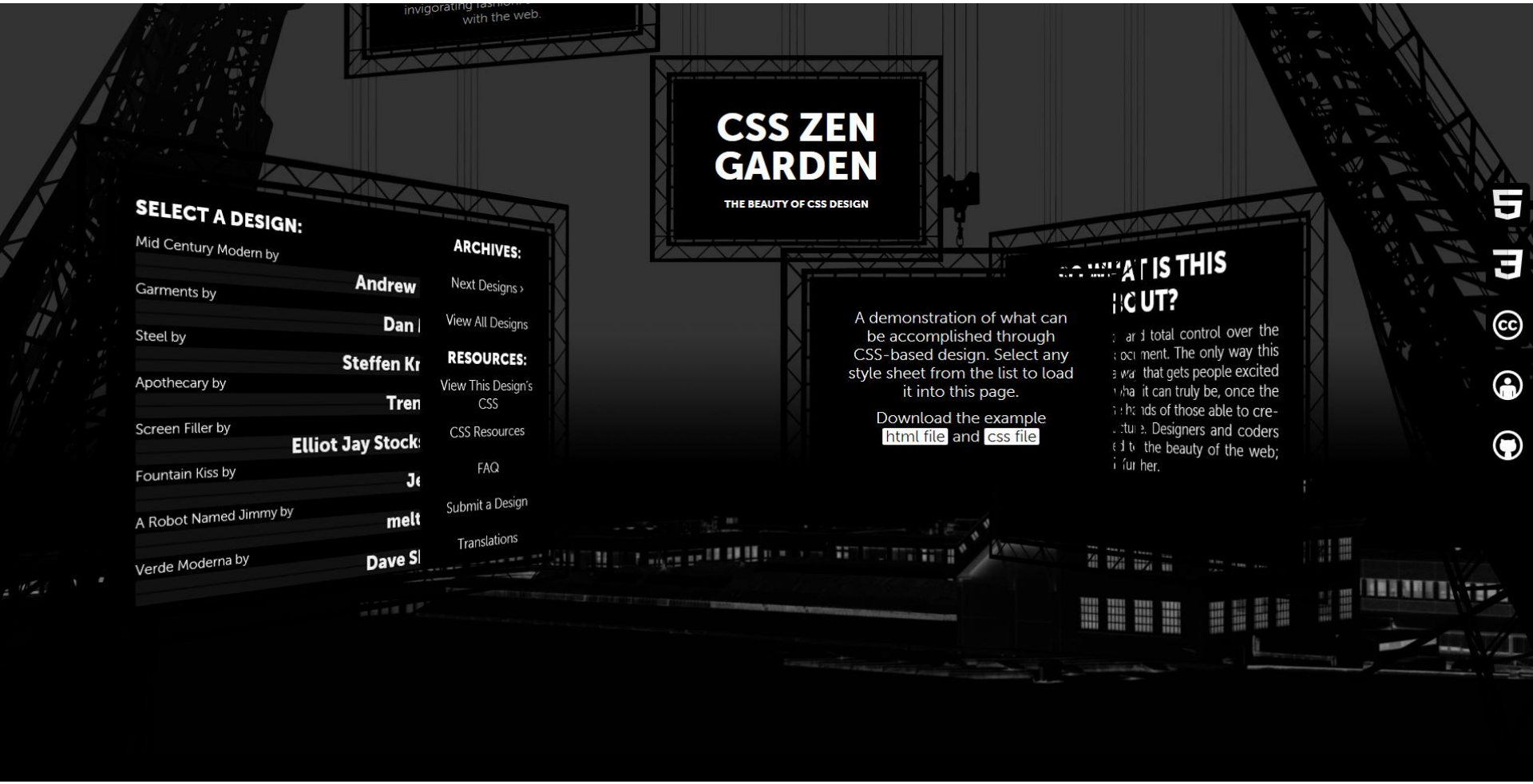
CSS Zen Garden

CSS Zen Garden



CSS Zen Garden

CSS Zen Garden



CSS Zen Garden

Learn more

- Web Hypertext Application Technology Working Group (WHATWG) HTML Living Standard
  - https://html.spec.whatwg.org/
- W3Schools Online Web Tutorials
  - https://www.w3schools.com/html/
  - https://www.w3schools.com/css/
  - + JavaScript, PHP, SQL, Python

Web application

Web application

- Implies processing data and generating a customized document (direct result of the input data)
- input data can originate:
  - from the user
  - from an external source (DB)
  - a **combination** user/DB

Forms in HTML

- required for the user to send data to the server
- <form>…</form>
- Specific attributes:
  - action: address of the document which receives the data
    - <form **action**="<?php echo $_SERVER['PHP_SELF'];?>">
    - <form **action**="actiuni/file2.html">
  - method: method for transmitting data: post or get
    - <form **method**="post" action= … >

Methods

- **post** : data is transmitted as a block (inside the body of the HTTP request)
- **get** : appends form-data into the URL : results.php?prob=81&an=2009
- **get** must be used only for "idempotent" data,
  - no collateral effects
  - no change in server status (databases, etc)
- we can emulate a form (**get**) by writing links appropriately

Form elements

- inside <form>…</form>
  - input
  - select/option
  - textarea
  - button
- **all** elements will have a name
  - attribute: **name**=“”
  - the name will be directly present in the URI generated by get, or will be a variable sent by post
- data is effectively sent by a **type="submit"** button

INPUT

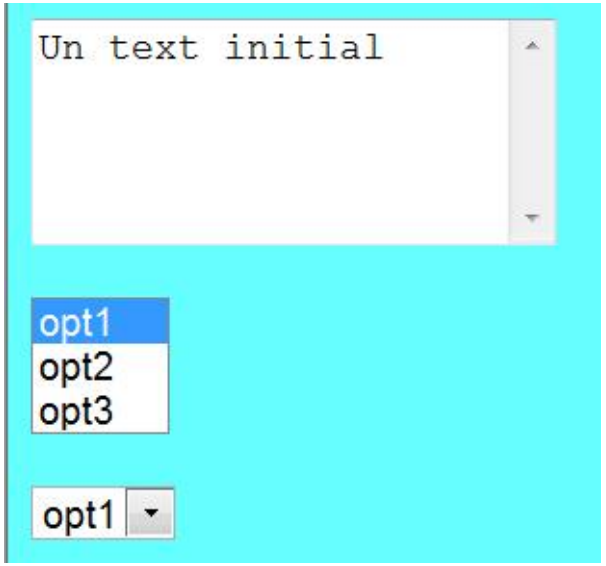
- <input …/>
- Attributes:
  - type: text | password | checkbox | radio | submit | reset | file | hidden | image | button
  - name: variable name
  - value: data to send to the server on submitting the form (initial data in some cases)
  - checked/src/size/maxlength depending on type

Examples

```
<input name="textfield" type="text" value="ceva" />

<input name="Ok" type="submit" value="Trimite" />

<label><input name="check" type="checkbox" value="5" checked />check1</label>

<label><input name="RG1" type="radio" value="a" checked="checked" />but1</label>
<label><input name="RG1" type="radio" value="b" />but2</label>

<input name="hid" type="hidden" value="6" />
```

TEXTAREA/SELECT

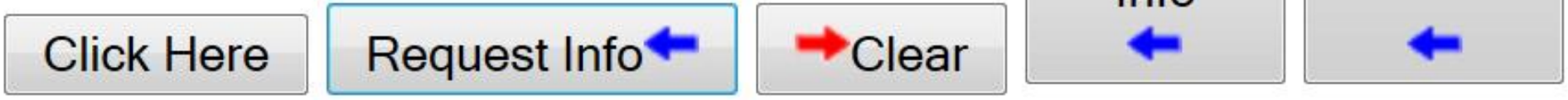
```
<textarea name="textarea" cols="20" rows="5">Un text initial</textarea><br /><br />

<select name="select." size="3">
 <option value="1" selected="selected">opt1</option>
 <option value="2">opt2</option>
 <option value="3">opt3</option>
</select><br /><br />

<select name="select...">
 <option value="1" selected="selected">opt1</option>
 <option value="2">opt2</option>
 <option value="3">opt3</option>
</select>
```



BUTTON

```
<button type="button" onClick="do ( );">Click Here</button>

<button type="submit" value="infoOnly">Request Info<img
src="arrowb.gif" /></button>

<button type="reset"><img src="arrowr.gif" />Clear</button>

<button type="submit" id="sender"
value="infoOnly">Request<br />Info<br /><img
src="arrowb.gif" /></button>

<button type="submit" id="sender"
value="infoOnly"><p>Request</p><p><b><i>Info</i></b></p>
<img src="arrowb.gif" /></button>
```

- introduced to insert complex content in buttons (formatted text, images)
- Not always the best idea (Don't make me think!)



Exemplu – forma

- Mic magazin online
- Formular de comanda cu procesarea comenzii

```
<html>
<head>
<title>Magazin online XXX SRL</title>
</head>
<body>
<h1>Magazin online XXX SRL</h1>
<h2>Realizati comanda</h2>
<form action="rezultat.html" method="post">
<table border="0">
<tr bgcolor="#cccccc"><td width="150">Produs</td><td width="15">Cantitate</td></tr>
<tr><td>Carti</td><td align="center"><input type="text" name="carti_cant" size="3" maxlength="3" /></td></tr>
<tr><td>Caiete</td><td align="center"><input type="text" name="caiete_cant" size="3" maxlength="3" /></td></tr>
<tr><td>Penare</td><td align="center"><input type="text" name="penare_cant" size="3" maxlength="3" /></td></tr>
<tr><td colspan="2" align="center"><input type="submit" value="Trimite" /></td></tr>
</table>
</form>
</body>
</html>
```

Contact

- Laboratorul de microunde si optoelectronica
- http://rf-opto.etti.tuiasi.ro
- rdamian@etti.tuiasi.ro