

Lecture 21

Introduction to PHP (Part-1)

Mr. Mubashir Ali

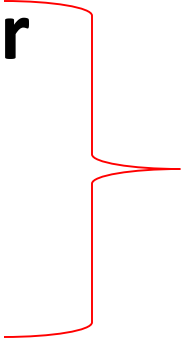
Lecturer (Dept. of Computer Science)

dr.mubashirali1@gmail.com

Outline

- **Setting the environment**
- **Overview of PHP**
- **Constants and Variables in PHP**

1. Setting the environment

- A web server
 - PHP
 - MySql
 - <http://www.wampserver.com/en/>
 - Editor
 - Macromedia Dreamweaver /Adobe Dreamweaver
- WAMP Server**
- 

1. Setting the environment ...

- **Checking WAMP status:**

WAMP is working properly



- **MSVCR100.dll is missing**
 - Install Microsoft Visual C++ 2010 SP1 Redistributable Package
- **Port conflict with skype**

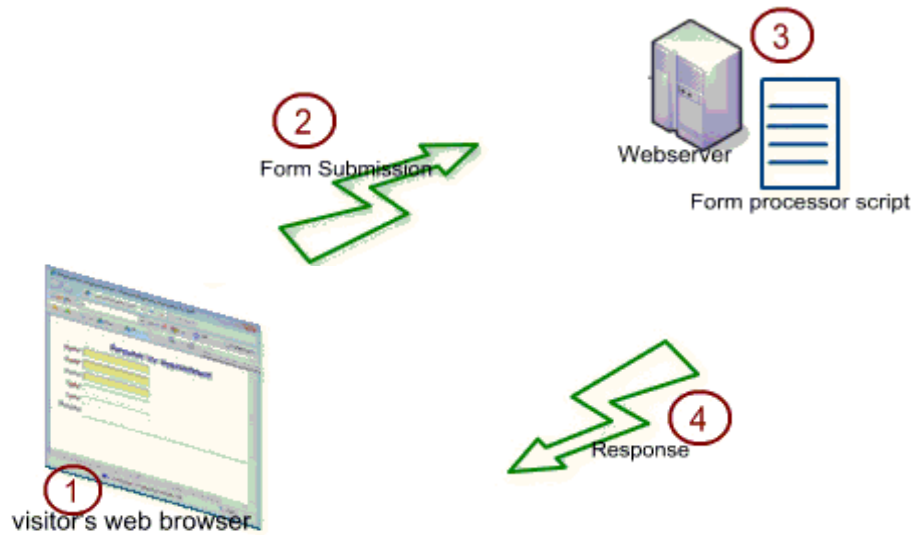
2. PHP: an Overview

- **PHP:** Hypertext Preprocessor
- Originally called “**Personal Home Page Tools**”
- Used to create **dynamic** web pages
- Popular **server-side** scripting technology
- **Open-source**
 - Anyone may **view, modify** and **redistribute** source code
- **Platform independent**

2. PHP: an Overview...

- **Interpreted language**, scripts are parsed at run-time rather than compiled beforehand
- **Compatible with many popular databases**
- **Popular server-side** scripting technology
- **Structurally similar to C/C++**
- **Supports procedural and object-oriented paradigm**

2. PHP: an Overview...



2.1 How PHP Fits with HTML

- Embedding **PHP in HTML** code
- HTML can also be written **inside the PHP** code
- PHP can also be written as a **standalone program** with no HTML at all

2.2 Basic Rules of PHP syntax

- PHP code is denoted in the page with **opening and closing tags**, as follows:
 - **<?php and ?>**
 - **<? or ?>**
 - **<script language="PHP">..... </script>**
- PHP statements **end** with a **semicolon**
- Comments can be added as
 - **// for one line comment**
 - **/* and */ for multiple lines comment**

2.3 Writing and executing PHP code

- Open a notepad or dreamweaver file
- Write PHP code
- Save file with **.php** extension
- Save all the files in **one directory**
- Copy this directory in
 - **C:\wamp\www**

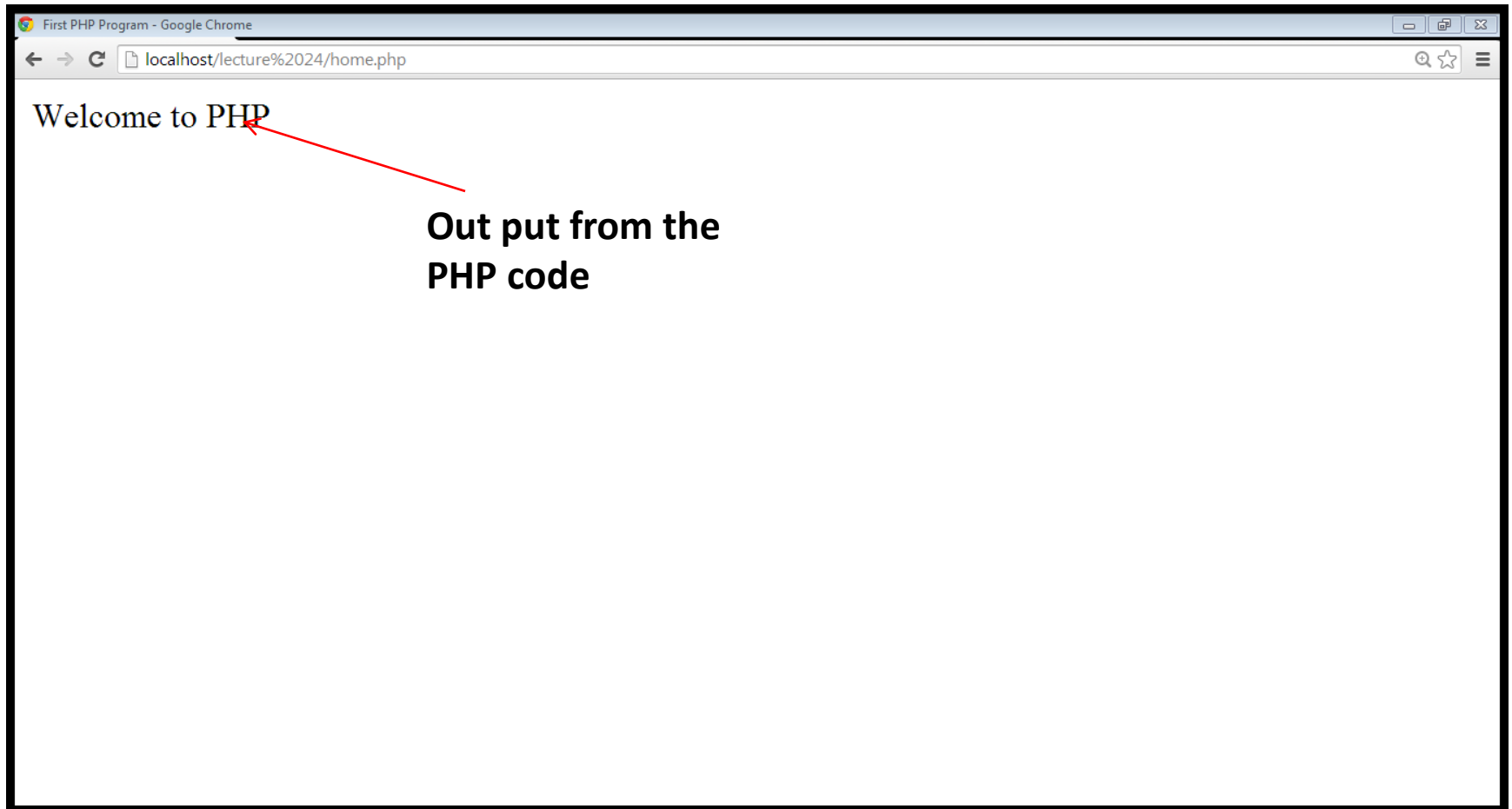
2.3 Writing and executing PHP code...

- Start **WAMP server**
- Go to **localhost** either by typing **localhost** in address bar of the browser or by **clicking** the **WAMP sever icon** in the toolbar and **selecting localhost**
- Select your **web directory** from the list of project on the **WAMP server home page**
- Select the file to execute

2.4 Writing output to the browser

- **echo():** is used to write output on the browser
 - `echo("Welcome to PHP");`
 - `echo "Welcome to PHP";`
- **print():** can also be used to write out put on the browser
 - `print("Welcome to PHP");`
 - `print "Welcome to PHP";`
- **printf():** can also be used for writing output

2.5 First PHP program...



2.6 Integrating HTML with PHP

- **echo** statement outputs **whatever** it's told to the browser
- It can output not only **plain text** but also **HTML tags**
 - **echo “<h1> Welcome to the PHP</h1>”;**

2.6 Integrating HTML with PHP...

- Using quotation marks:

– echo “<h1 style=“color:red”> Welcome to PHP</h1>”;

– echo “<h1 style=‘color:red’> Welcome to PHP</h1>”;

– echo “<h1 style=\“color:red\”> Welcome to PHP</h1>”;

2.6 Integrating HTML with PHP...

The screenshot shows the Macromedia Dreamweaver 8 interface with a code editor displaying PHP code. The code is as follows:

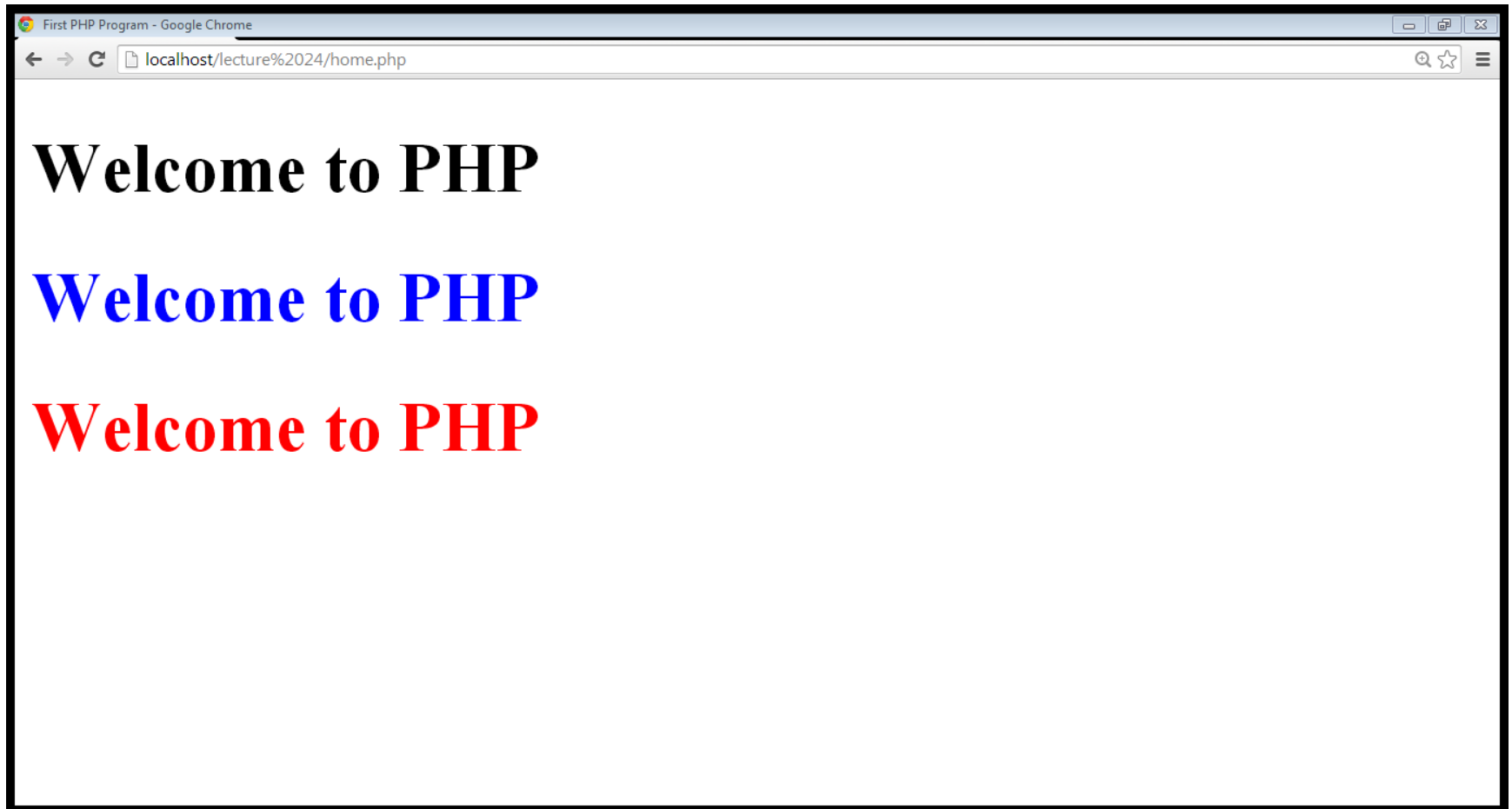
```
1 <!DOCTYPE html; charset=iso-8859-1" />
5 <title>First PHP Program</title>
6 </head>
7 <body>
8 <?php
9 echo "<h1>Welcome to PHP</h1>";
10 echo "<h1 style='color:blue'>Welcome to PHP</h1>";
11 echo "<h1 style=\"color:red\">Welcome to PHP</h1>";
12 ;
13 </body>
```

Annotations with red arrows point to specific parts of the code:

- Using heading**: Points to the `<h1>` tag in line 9.
- Arranging quotations**: Points to the double quote character in line 11.
- Using escape character**: Points to the backslash character in line 11.

The interface also shows the CSS panel on the right with a message: "You have made changes to the code. To update the CSS panel or edit CSS properties, click Refresh or press F5." and a "Refresh" button. The Properties panel at the bottom also shows a similar message and a "Refresh" button.

2.6 Integrating HTML with PHP...



3. Using CONSTANTS and Variables

3.1 CONSTANTS

- A **constant** is a placeholder for a value that you reference within your code that is formally defined before using it
- must begin with a **letter** or an **underscore**
- are **case sensitive**
- typically they are named using **all capital** letters
- PHP function **define()** is used to assign a value to a constant

3.1 CONSTANTS...

The screenshot shows the Macromedia Dreamweaver 8 interface with the following code in the main editor:

```
6 </head>
7 <body>
8 <?php
9 define("FAVGAME", "Cricket");
10 echo "My favorite game is ";
11 echo FAVGAME;
12 ?>
13 </body>
14 </html>
15
```

Annotations with red arrows point to specific parts of the code:

- Constant name**: Points to the string `"FAVGAME"` in line 9.
- Value of constant**: Points to the string `"Cricket"` in line 9.
- Displaying the value**: Points to the `FAVGAME` variable in line 11.

The interface includes a menu bar (File, Edit, View, Insert, Modify, Text, Commands, Site, Window, Help), a toolbar, and several panels on the right: CSS Styles, Files, and Properties. The Properties panel at the bottom shows a message: "You have made changes to the code. To edit selection properties, click Refresh or press F5." with a Refresh button.

3.2 Variables

- Begin with **\$ sign**
- First character must be a **letter or underscore**
- Remaining characters may be **letters, numbers or underscores**
- Don't need to **declare or initialize**
- **Case sensitive**
- Data types **does not** require to be **declare explicitly**
- **Supports**
 - **Float, integer, boolean, string, array, object**

3.2 Variables...

The screenshot shows the Macromedia Dreamweaver 8 interface with the following code in the main editor:

```
6 </head>
7 <body>
8 <?php
9 $favplayer = "Muhammad Yousuf";
10 echo "My favorite batsman is ";
11 echo $favplayer;|
12 ?>
13 </body>
14 </html>
15
```

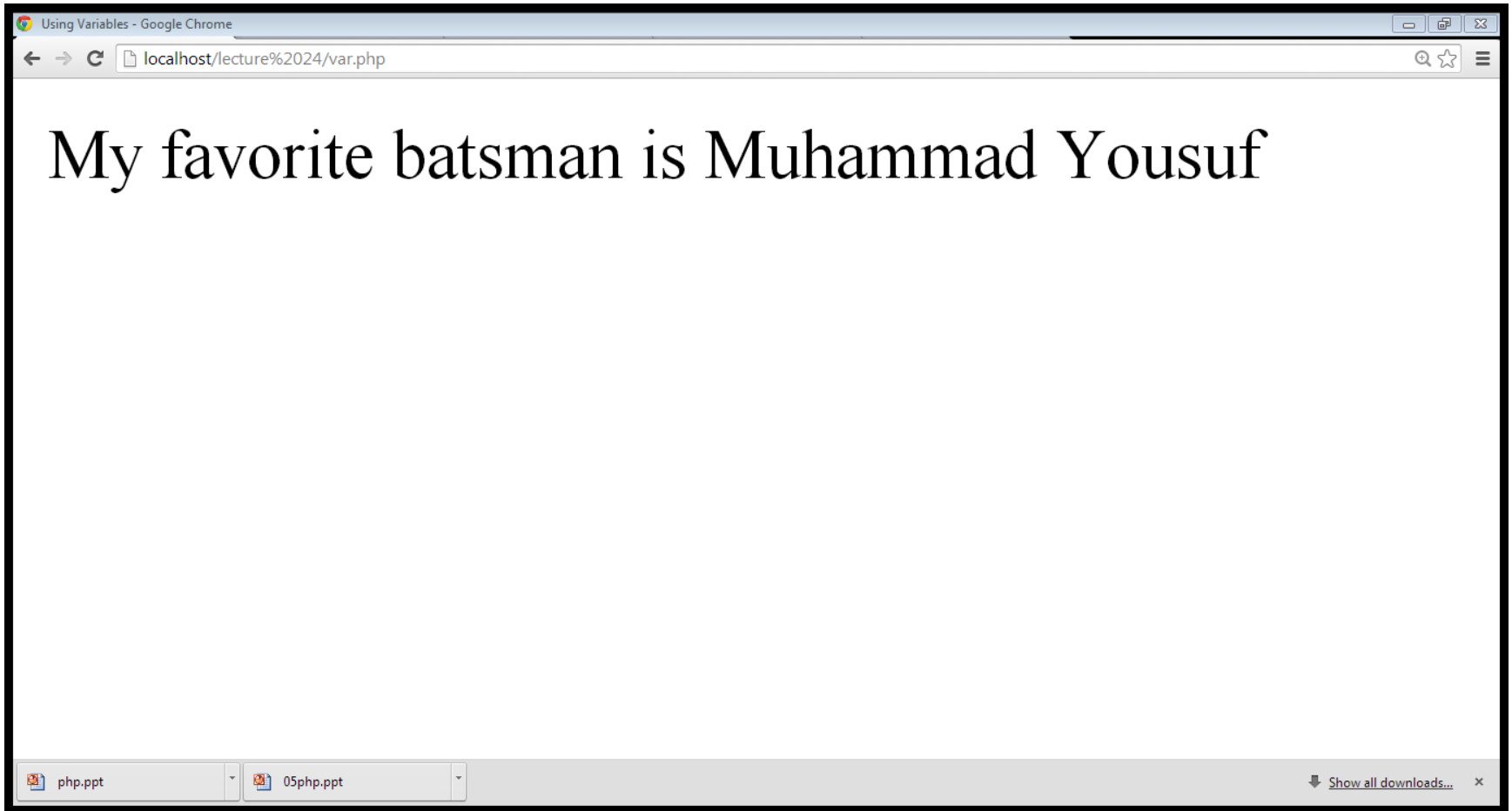
Annotations in the image:

- Variable declared:** Points to the variable name `$favplayer` in line 9.
- Initial value:** Points to the string `"Muhammad Yousuf"` in line 9.
- Displaying variable's value:** Points to `$favplayer` in the `echo` statement on line 11.

The Properties panel at the bottom shows the server markup for the selected code:

```
$favplayer = "Muhammad Yousuf";
echo "My favorite batsman is ";
echo $favplayer;
```

3.2 Variables...



3.2 variables...

- The **gettype()** function returns the type of the provided variable
- The **settype()** function converts a variable to the type specified by type

3.2 Variables...

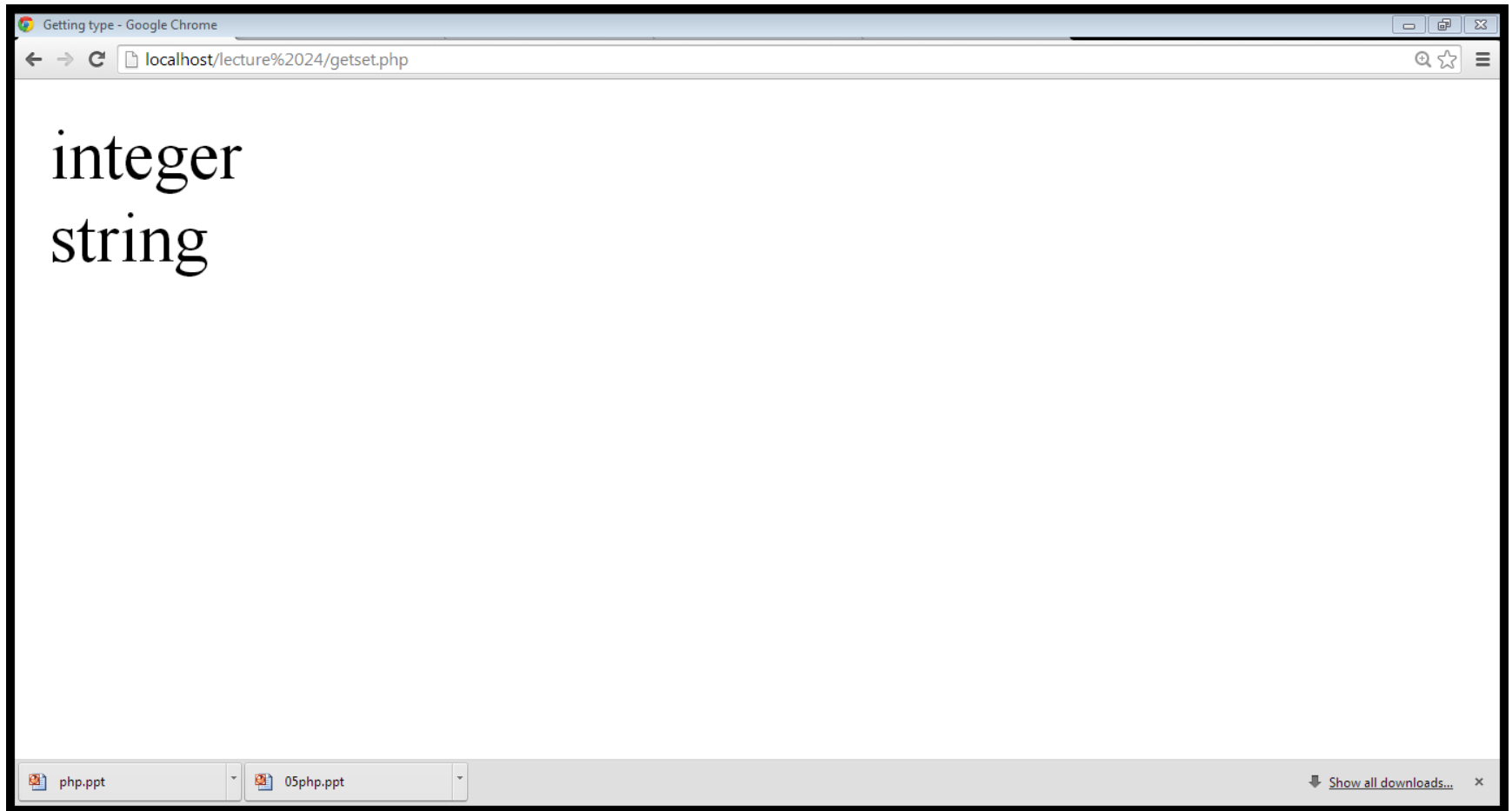
The screenshot shows the Macromedia Dreamweaver 8 interface. The main workspace displays the following PHP code:

```
8 <body>
9 <?php
10 $favnumber=10;
11 echo gettype($favnumber) . "<br>";
12 settype($favnumber, "string");
13 echo gettype($favnumber)|;
14 ?>
15 </body>
16 </html>
17
```

The interface includes a menu bar (File, Edit, View, Insert, Modify, Text, Commands, Site, Window, Help), a toolbar with various icons, and several panels on the right side:

- CSS Styles**: Shows a message: "You have made changes to the code. To update the CSS panel or edit CSS properties, click Refresh or press F5." with a Refresh button.
- Application**: A panel for application settings.
- Tag Inspector**: A panel for inspecting HTML tags.
- Files**: A file explorer showing the Desktop directory.
- Properties**: A panel at the bottom showing "Code view" and a message: "You have made changes to the code. To edit selection properties, click Refresh or press F5." with a Refresh button.
- Results**: A panel at the bottom for displaying output.

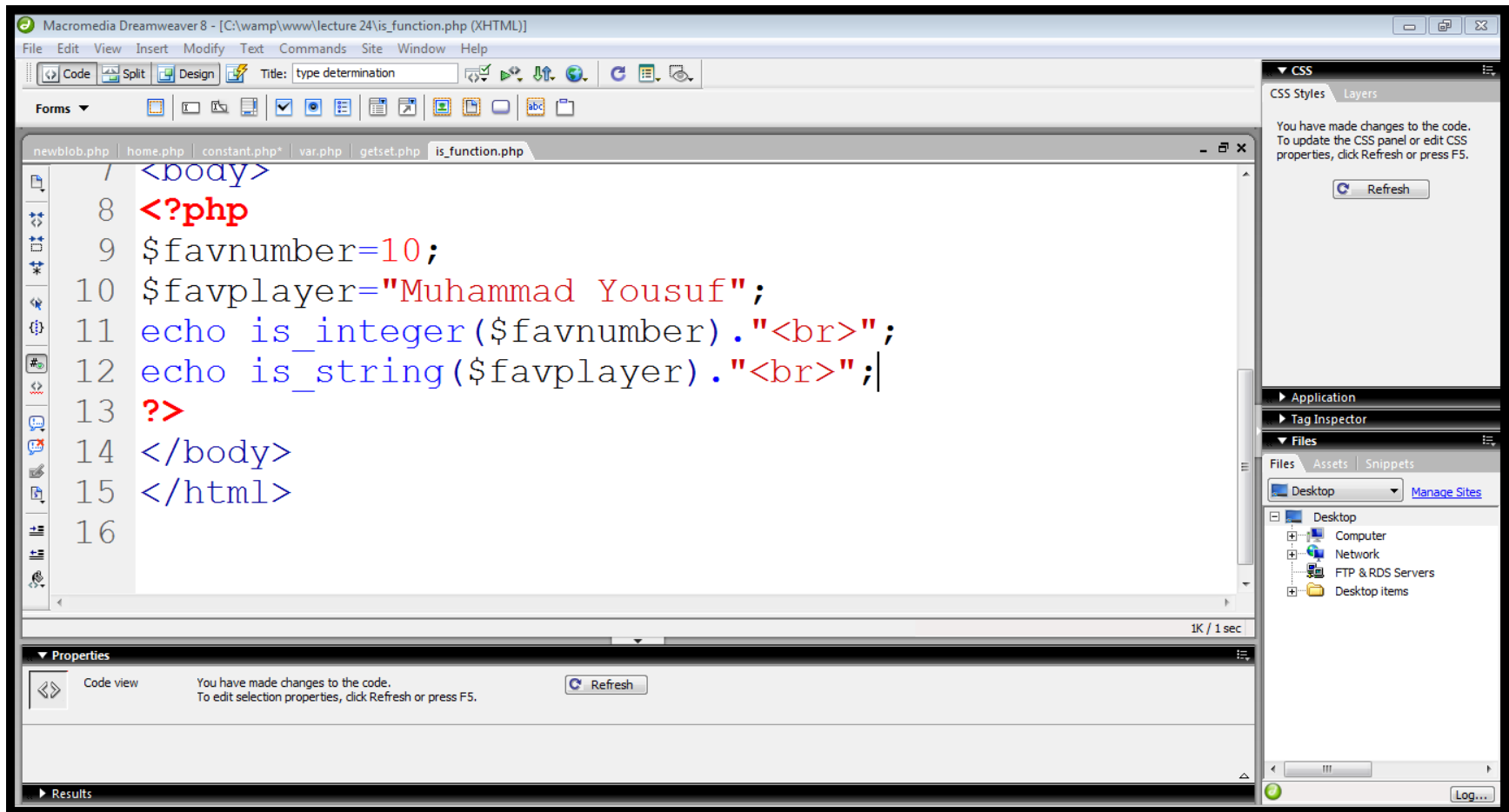
2.2 Variables...



2.2.1 Type determination

- A number of functions are available for **determining a variable's type**
 - **boolean** `is_name(mixed var)`
- `is_array()`
- `is_bool()`
- `is_float()`
- `is_integer()`
- `is_null()`
- `is_numeric()`
- `is_string()`

2.2.1 Type determination...

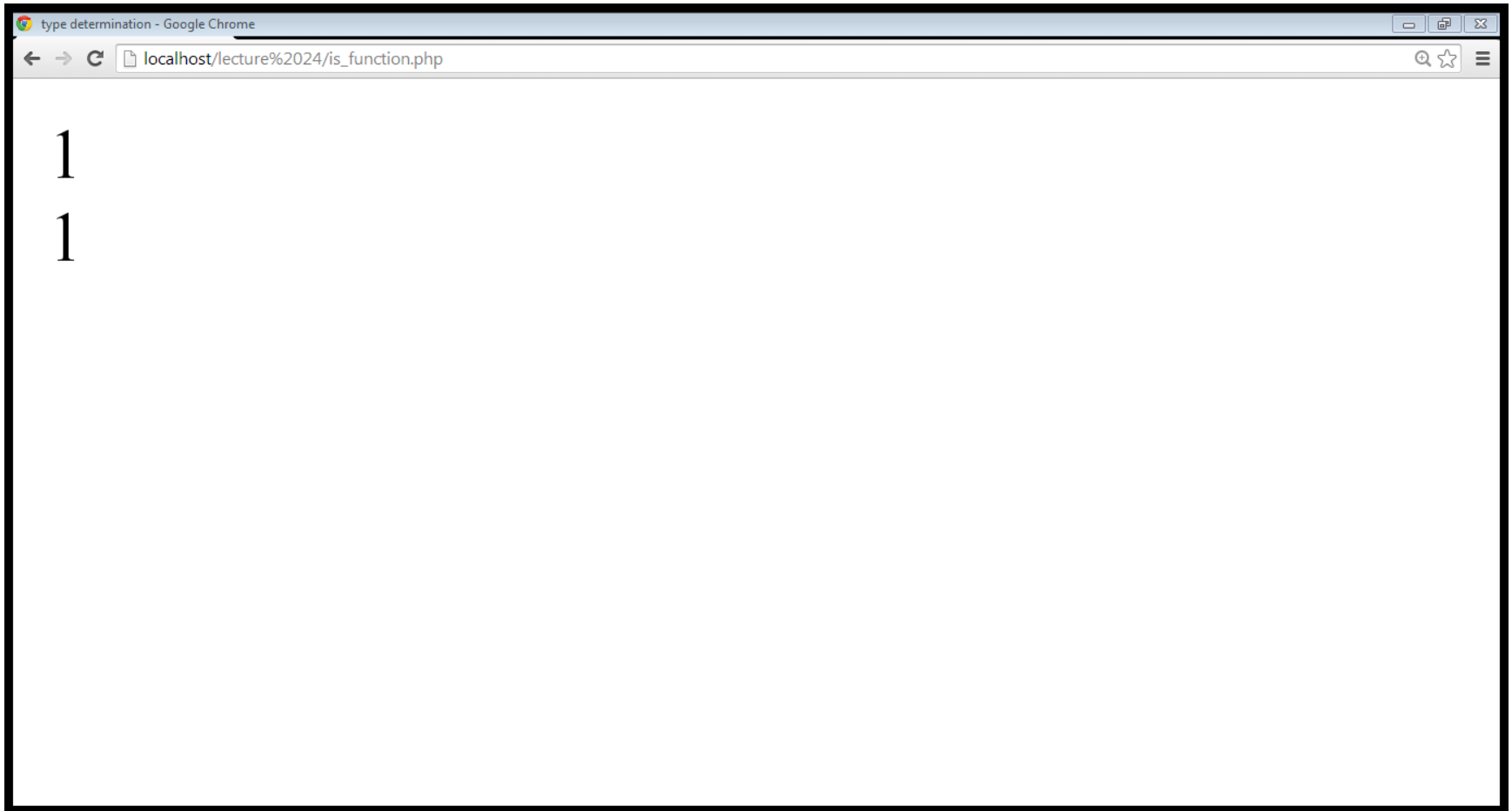


The screenshot displays the Macromedia Dreamweaver 8 interface. The main workspace shows the following PHP code:

```
7 </body>
8 <?php
9 $favnumber=10;
10 $favplayer="Muhammad Yousuf";
11 echo is_integer($favnumber)."<br>";
12 echo is_string($favplayer)."<br>";
13 ?>
14 </body>
15 </html>
16
```

The interface includes a menu bar (File, Edit, View, Insert, Modify, Text, Commands, Site, Window, Help), a toolbar with various icons, and a title bar indicating the file path: C:\wamp\www\lecture 24\is_function.php (XHTML). The right-hand side features a CSS panel with a 'Refresh' button and a message: 'You have made changes to the code. To update the CSS panel or edit CSS properties, click Refresh or press F5.' Below this are panels for 'Application', 'Tag Inspector', and 'Files', which shows a file tree structure including Desktop, Computer, Network, FTP & RDS Servers, and Desktop items. The bottom of the interface has a 'Properties' panel with a 'Code view' tab and another 'Refresh' button, along with a 'Results' panel.

2.2.1 Type determination...



```
1  
1
```

Summary

- **Setting the environment**
- **PHP overview**
- **PHP constants and variables**

References

- **Chapter 2**, “Beginning PHP6,Apache,MySQL web development” by Matt Doyle, Wrox publishers, 2009, ISBN: 0470413964
- **Chapter 3**, “Beginning PHP and MySQL” by W. Jason Gilmore, Apress publisher, 4th edition; 2010, ISBN-13 (electronic): 978-1-4302-3115-8.