

INFO / CS 2300
Intermediate Web Programming

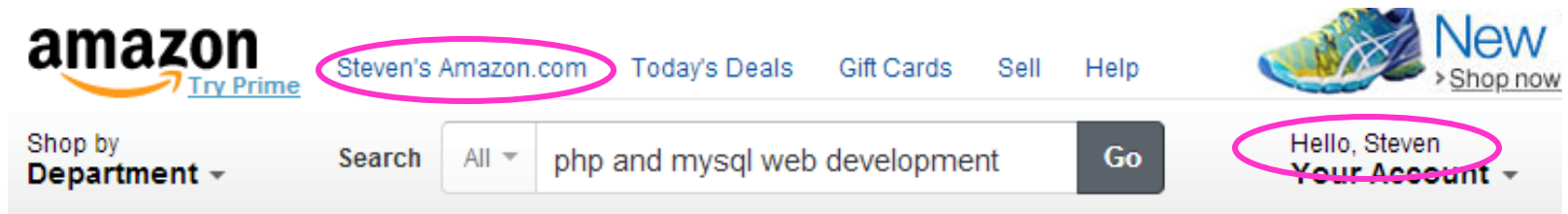
In a nutshell...

1300 is about how web sites **look**

2300 is about how web sites **work**

We're working with technologies that
allow you to make websites more
interactive, useful and engaging

How do they remember me?



And my stuff?

Your Orders

Search for title, department, ,

Orders

Open Orders

Digital Orders

Cancelled Orders

2 orders placed in past 6 months ↕

ORDER PLACED
December 10, 2014

TOTAL
\$73.57

SHIP TO
[Steve Mohlke](#) ▼

Delivered

Delivered on: Thursday, December 18, 2014



[Highwave JOEmoXL 16 oz. Stainless Steel Travel Mug](#)
Sold by: [Modern Everyday](#)

[Buy it Again](#)

Delivered

Delivered on: Monday, December 22, 2014



[2 of Plugable USB 3.0 SuperSpeed SATA III Lay-Flat Hard Drive Docking Station \(ASMedia ASM1053E SATA III to USB Chipset, UASP and 6TB+ Drive Support\)](#)
Sold by: [Plugable Technologies](#)

[Buy it Again](#)

You'll be able to code a dynamic search

Tags: a

ActionScript

AppleScript

Asp

BASIC

Erlang

Fortran

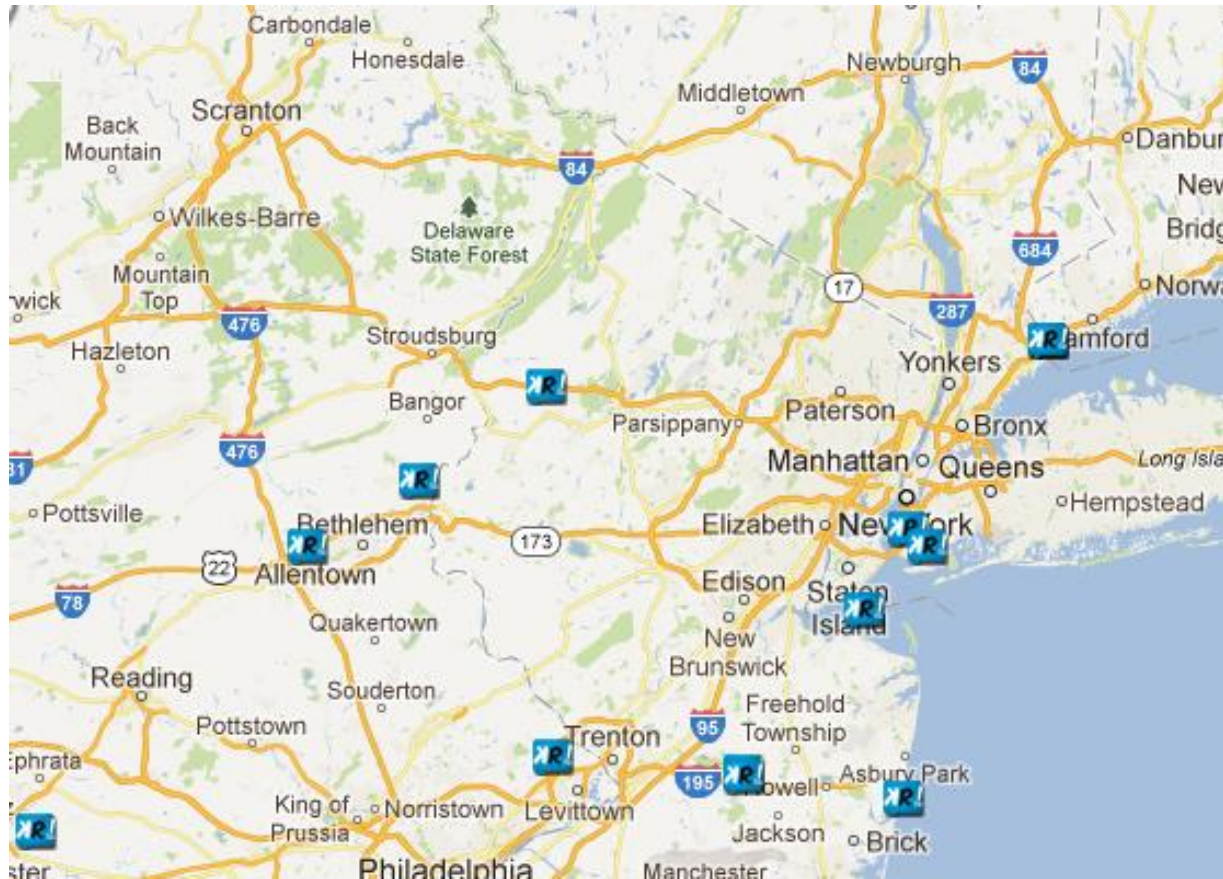
Haskell

Java

JavaScript

Scala

And other neat things



Plan for today

- Course mechanics
- Initial assignments
- Begin PHP

Course mechanics

Lecture - M, W 2:30

Uris Auditorium

Sections start this Friday

All sections are full

- Attend **your** section
- If you must change, contact Amy Sindone (als44@cornell.edu).
- Short quiz starts most sections – be prompt!

What if I am waitlisted?

- About 40 still on the wait list.
- If you want to keep trying, come to lecture and do the assignments for first two weeks.
- Don't attend section; we'll waive quiz scores/attendance for those sections if you end up enrolling.
- If you receive an enrollment pin from Amy, use it promptly

I want to take this class but
I'm not on the waitlist yet.

InfoScience majors or pre-majors

- contact Amy Sindone
(als44@cornell.edu)

Non-majors

- odds are very slim

If you find you need to drop

Please do so promptly. There are others who can't get in to the course until you do.

Why you don't need this course

Content management systems like WordPress, Squarespace and OrgSync make it possible to create a decent web site in a few hours.

Why you do need this course

Cornell students are creative and innovative. What happens when those systems don't do what you want because **something breaks** or they **aren't flexible** enough?

We're teaching the building blocks upon which those systems are based so you'll know your options.

Intermediate level web technologies

- PHP
- JavaScript / jQuery
- Databases: SQL, ER diagrams, Normalization, MySQL
- AJAX
- Regular expressions
- And more

Assumptions

You can **design an HTML web page**

1300 or equivalent

already know HTML/CSS

– OR –

do some extra catching up in the next few weeks

You have **some programming experience** with a language (like C, C++, Java) at the level of an intro class (CS 1100 and Python OK)

Can you find the mistake(s)?

```
<h2>Sports</h2>
```

```
<ul>
```

```
  <li>Hockey</li>
```

```
  <li>Basketball</li>
```

```
  <li>Volleyball</li>
```

```
</ul>
```

Grading

Homework (9%)

Section (10%)

Lecture participation - clickers (3%)

Projects (68%)

Final Exam (10%)

See syllabus for more details

Warning to the pressure prompted

This class is hard on those who consistently leave things to the last minute.

- Hard to predict how long
- Office hours full near deadlines
- Technologies sometimes don't cooperate

Final Group Project

In a group chosen by course staff, create a substantial, database-driven website for some external client chosen by the group.

What do I buy?

Books: None. Lecture notes will be available online.

If you really want a book, see the syllabus on Piazza for recommendations.

You need a clicker for lecture – details in syllabus

Online Class Resources

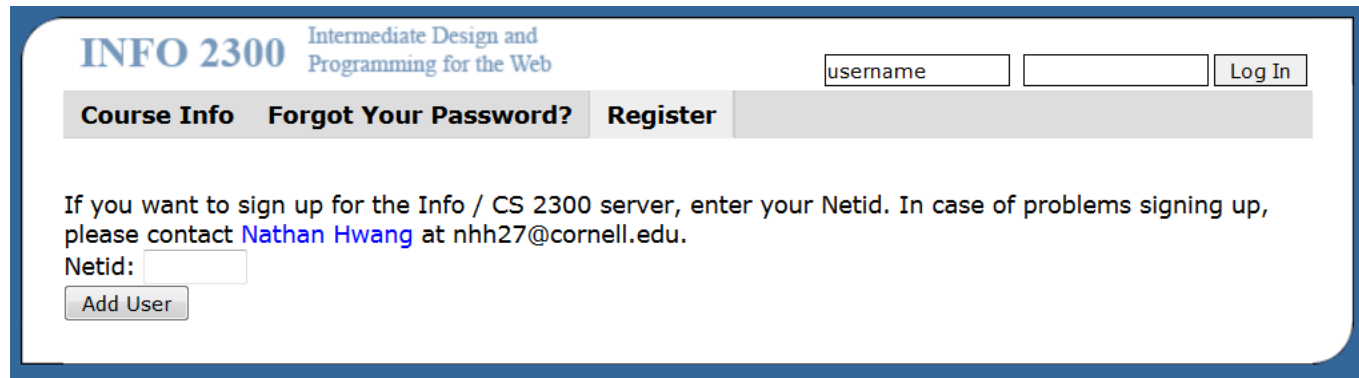
Piazza: class forum, announcements,
resources

Course Server: for sites and homework

CMS: for grading

Start Here

<http://info2300.cs.cornell.edu>



The screenshot shows the top section of the INFO 2300 website. At the top left, it says "INFO 2300" in large blue letters, followed by "Intermediate Design and Programming for the Web" in smaller blue text. To the right of this text are two input fields: the first is labeled "username" and the second is empty. To the right of the second input field is a "Log In" button. Below this header is a navigation bar with three tabs: "Course Info", "Forgot Your Password?", and "Register". The "Course Info" tab is currently selected and highlighted. Below the navigation bar, there is a paragraph of text: "If you want to sign up for the Info / CS 2300 server, enter your Netid. In case of problems signing up, please contact [Nathan Hwang](#) at nhh27@cornell.edu." Below this text is a label "Netid:" followed by an input field. Below the input field is an "Add User" button.

Register with username like this: **netidsp15**

The “Course Info” tab has a link to Piazza
The first assignment on Piazza has a link to CMS

How Can I Get Help?

1. Forums on Piazza
2. Internet search
3. TA office hours (usually in Gates)
4. Instructor's office hours

Steve Mohlke, 231 Gates Hall

After class - Mon, Wed 4 – 5.

5. Email (You'll get faster answers on Piazza)
6. Talk to us before/after class/section

Lecture Notes

All course lecture notes and code examples will be posted on...

Piazza

Mini Crash Course

Optional CSS for those of you who want some help catching up.

Time/Place: TBA (To Be Announced)

Possibly also mini crash courses on XAMPP, debugging and more. Watch for announcements.

Questions?

Read the syllabus on Piazza

Initial assignments

Assignments

- Posted on Piazza – usually on Wednesday
- Usually due Tuesdays at 5 PM by uploading files.
- Easiest way to lose points: upload to the wrong places ... **read directions carefully**

Homework 0 – Course Technologies

Start with the [2300 server](#) which links to [Piazza](#) where the assignment is posted.

Help available in Friday section or Office Hours.

Due Tuesday January 27th at 5 pm.

Project 1

Create a 4-5 page website about yourself

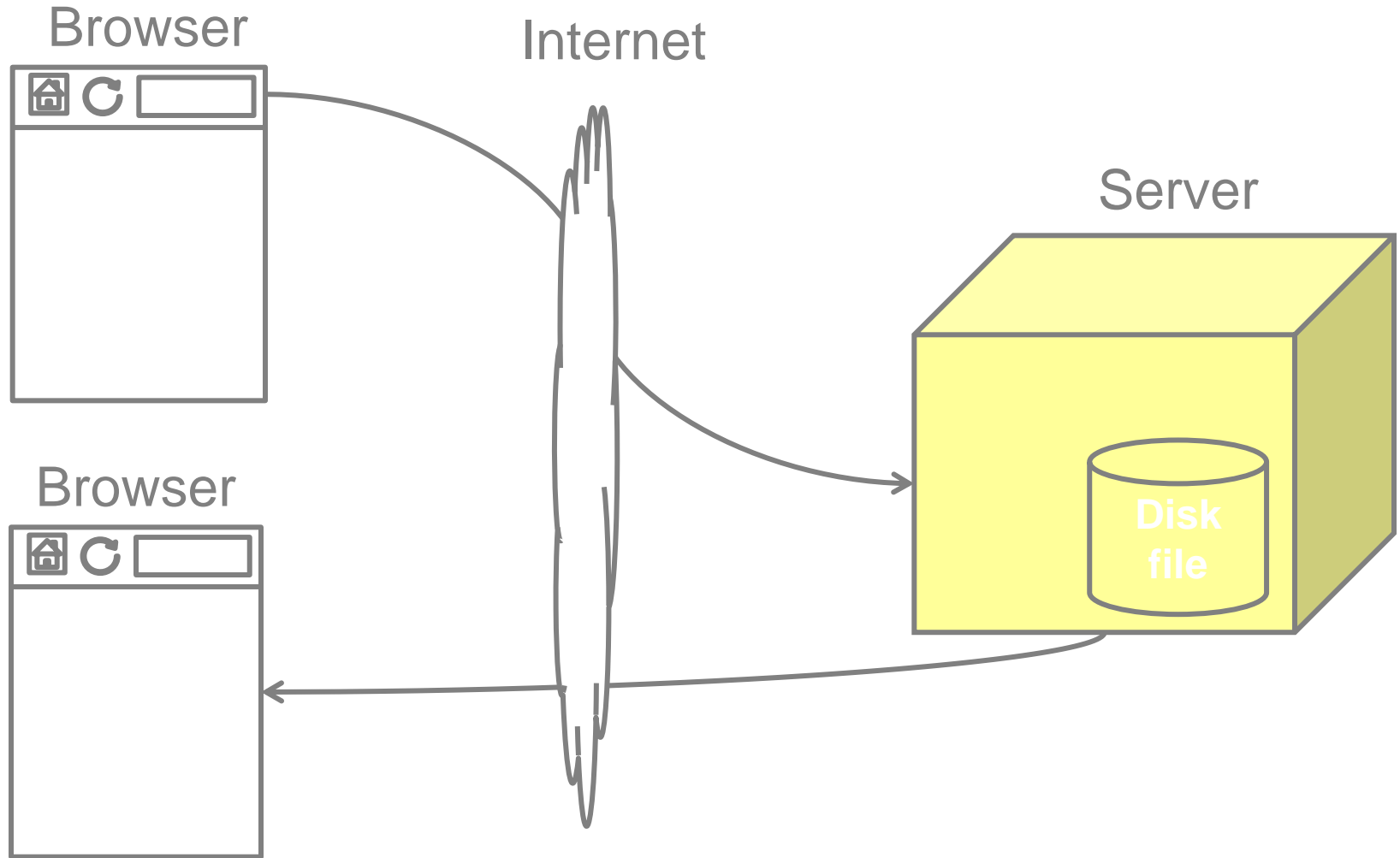
Use your knowledge of HTML & CSS, and integrate some basic PHP.

More detail will be posted on Piazza soon.
Due Tuesday February 3 at 5 pm.

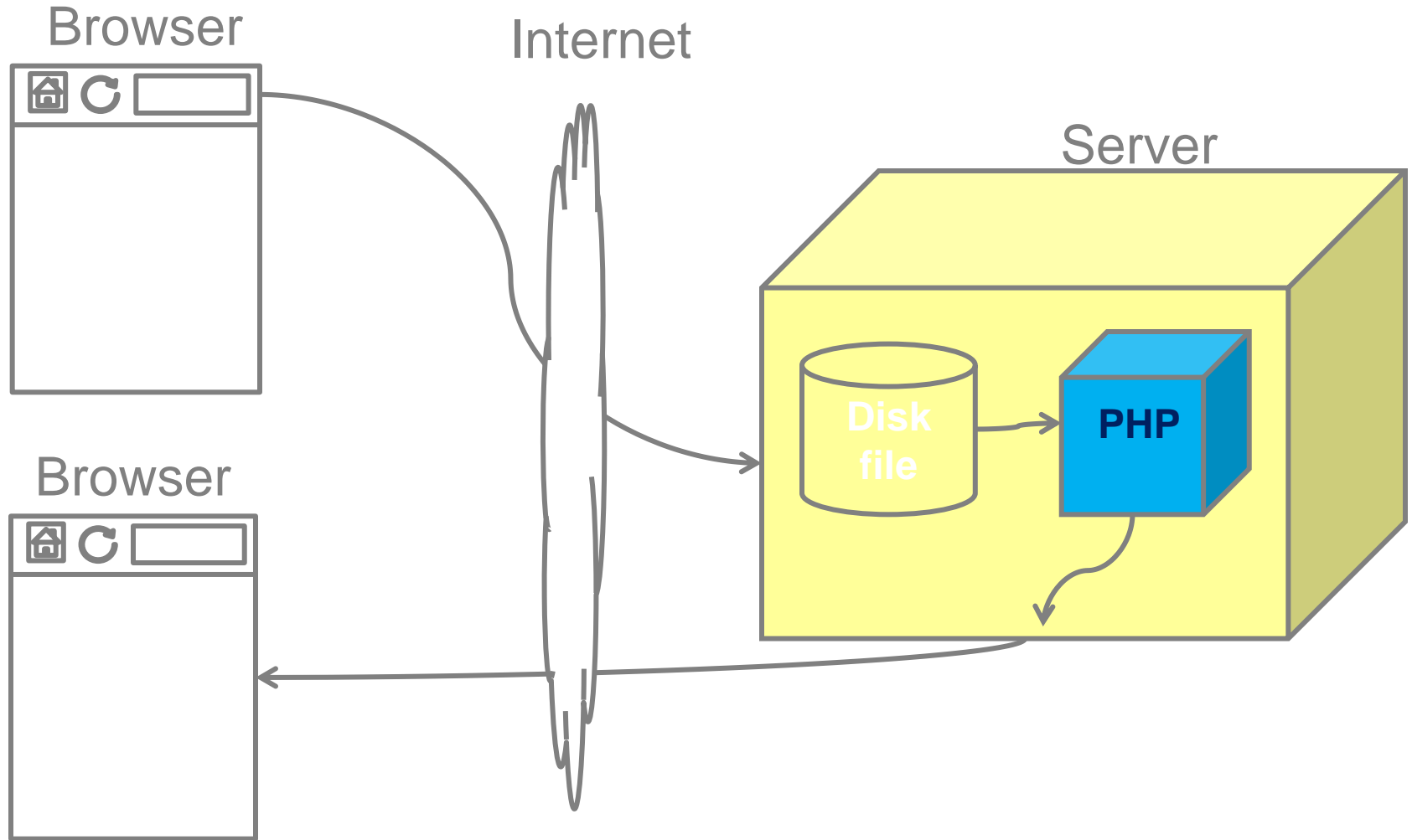
You can start thinking about the content today.

PHP

How the web works with HTML



How the web works with PHP



What can you do with PHP?

Automatically generate HTML files when accessed.

Allows for:

- Personalization
- Respond to form inputs
- Automate repetitive HTML coding
- And much, much more...

A very basic PHP file

```
<!DOCTYPE html>
<html>
  <head>
    <title>A Teeny Page</title>
  </head>
  <body>
    <p>Not much in here</p>
  </body>
</html>
```

What makes this PHP?

```
<!DOCTYPE html>
<html>
  <head>
    <title>A Teeny Page</title>
  </head>
  <body>
    <p>Not much in here</p>
  </body>
</html>
```

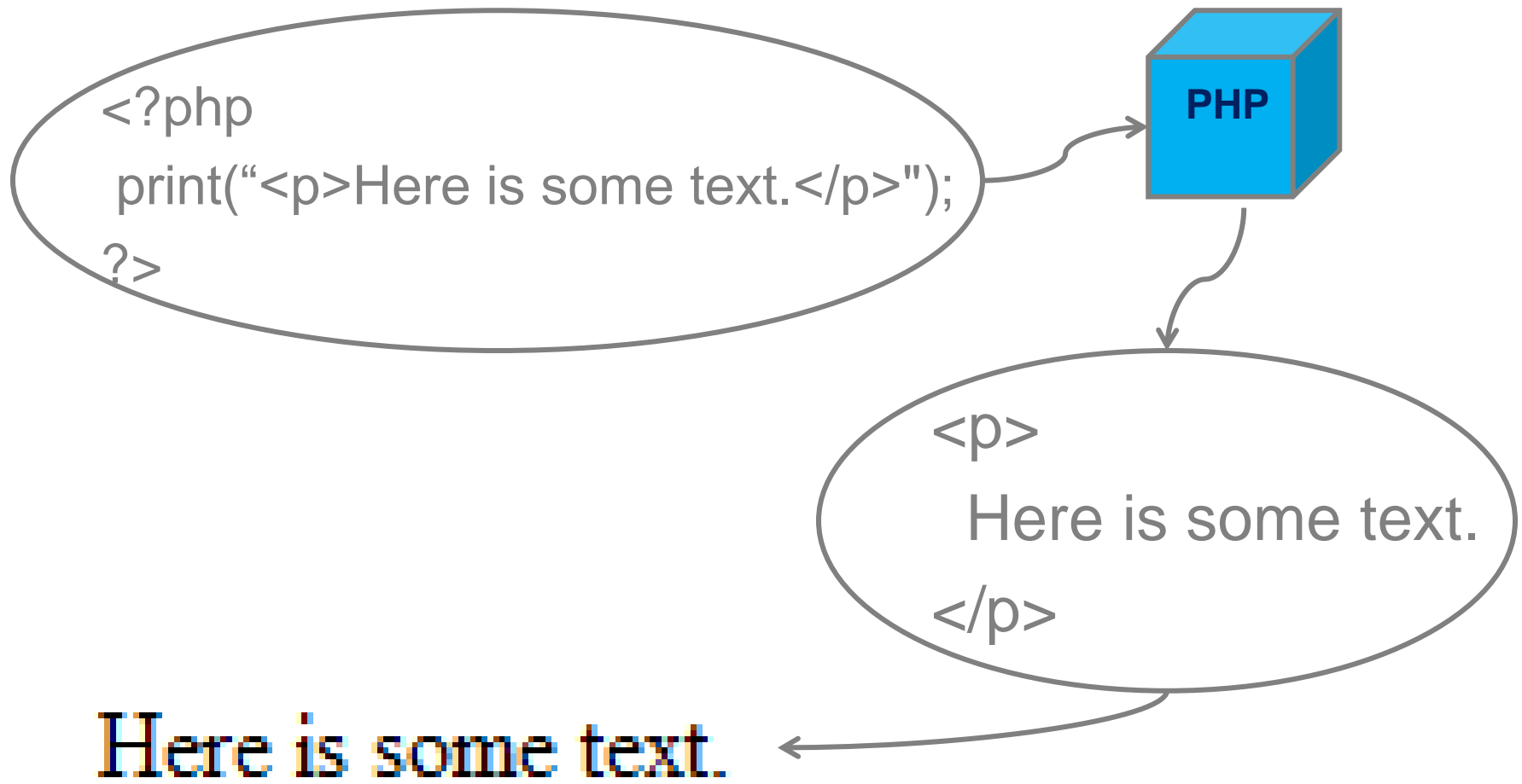
File saved as
teeny.php, not
teeny.html

Server scans file
before returning

A PHP file with PHP code

```
<!DOCTYPE html>
<html>
  <head>
    <title>A Teeny Page</title>
  </head>
  <body>
    <?php
      print("<p>Not much in here</p>");
    ?>
  </body>
</html>
```

PHP generates HTML



PHP exercise

Try to figure out (as best you can) what HTML is generated, and then what appears in the webpage.

We'll then look at each part of the exercise.

var1

- The value of \$var1 is:
 - A. 50
 - B. 60
 - C. 10
 - D. $5^{10}+10$
 - E. None of the above

var2

- The value of \$var2 is
 - A. “one_hot”
 - B. “one_hotdog”
 - C. “one_hot_hotdog”
 - D. “one_dog”
 - E. None of the above

var3

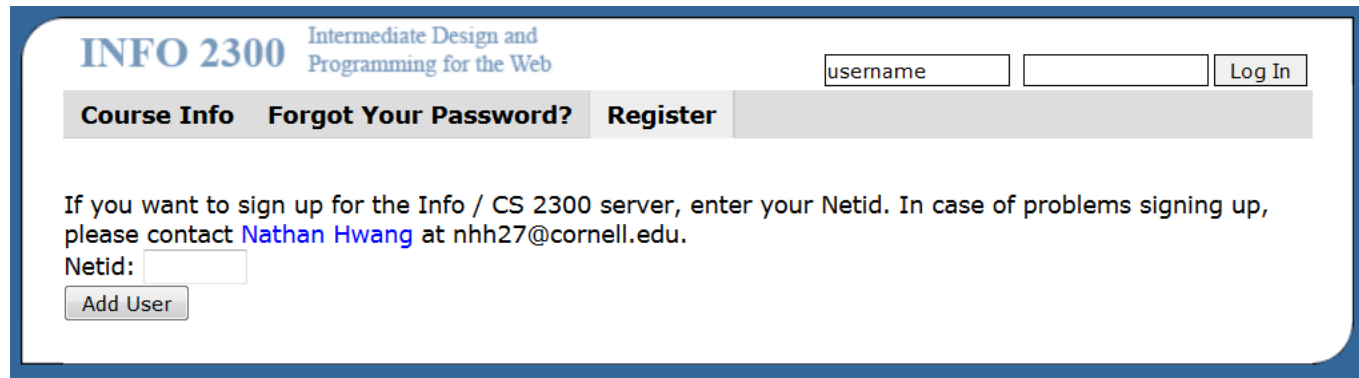
- The value of \$var3 is
 - A. “one”
 - B. “two”
 - C. “three”
 - D. None of the above

Next time

Wednesday: PHP – variables,
conditionals, arrays, loops, forms

Reminder: Start Here

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INFO 2300 Intermediate Design and Programming for the Web

username Log In

Course Info **Forgot Your Password?** **Register**

If you want to sign up for the Info / CS 2300 server, enter your Netid. In case of problems signing up, please contact [Nathan Hwang](#) at nhh27@cornell.edu.

Netid:

Add User

Then register on Piazza