

Web Design Tools and Planning Principles

Name _____

A01 Network Media

1. A _____ is the channel between the sender and a receiver.
2. Some computer network media
 - a. _____ - type of network wire
 - b. _____ - through the air
 - c. _____ - using glass
 - d. _____ - long distance tower to tower
 - e. _____ - in space
 - f. _____ - for phones
3. Two kinds of computers on a network are _____ and _____.
4. A LAN is _____.
5. A WAN is _____.

A02 Internet Addresses

1. IP stands for _____.
2. An example of an IP address looks like _____.
3. DNS stands for _____.
4. URL stands for _____.
5. A DNS server does what? _____.
6. These top level domain names stand for what?
 - a. Com _____
 - b. edu _____
 - c. org _____
 - d. net _____
 - e. gov _____
7. Use <https://who.is> to find who the following IP addresses belong to.
 - a. 68.180.131.16 _____
 - b. 69.171.239.12 _____
 - c. 136.8.33.21 _____

Domain Name Exercise

1. Go to www.godaddy.com
2. Check to see if you can register a domain name for you own name such as www.andewhopkins.com or www.joebrown.org
3. What would it cost to register a .com or .org name? _____

A03 Internet Packets and Routing

1. A division of pieces of data sent independently is a _____.
2. A packet has two main parts: _____ and _____
3. Reasons to split data into packets:
 - a. _____
 - b. _____
 - c. _____
4. The computer on a network that connects the organization to the outside is called either a _____ or a _____
5. What does a fault tolerant network design allow for?

6. Three problems with packet delivery
 - a. _____
 - b. _____
 - c. _____
7. What does the name lookup service do?

8. Use _____ to see if a server is turned on and connected to the network.
9. A _____ attack tries to overwhelm a server with too many requests from too many clients.
10. A _____ shows you which routers are being used to connect two different computers.
11. Go to <http://who.is> and find the statistics for cnn.com
 - a. How many DNS servers do they have? _____
 - b. When was the domain name registered? _____
 - c. When will the domain name expire? _____
(Be ready to register the name if they forget to renew!)

d. What city is the company located in? _____

B1 World Wide Web

1. The _____ is much larger than the _____.
2. HTML stands for _____
3. Name four brand names of web browsers
 - a. _____
 - b. _____
 - c. _____
 - d. _____
4. HTTP stands for _____
5. _____ is usually the name for the initial web page stored on a web server.
6. CSS stands for _____
7. The most widely-used programming language on the Internet is _____.
8. What do the following HTML tags indicate?
 - a. `<h1>` _____
 - b. `<p>` _____
 - c. `` _____
 - d. `` _____
 - e. `<body>` _____
 - f. `<title>` _____
9. Choose a simple web page and examine it's source. You should see HTML and CSS tags.
 - Wikipedia articles
 - <https://en.wikipedia.org/wiki/Football>
 - School Web page
 - <http://www.tuhsd.org/>

C01 Tools for a Web Developer

1. Name some text editors for writing HTML, CSS and JavaScript code
 - a. _____
 - b. _____
 - c. _____

2. A _____ provides a server, software and connectivity for your website.
3. FTP stands for _____
4. Read <http://www.sitepoint.com/5-most-popular-frontend-frameworks-compared/> Some Web Development JavaScript frameworks include
 - a. _____
 - b. _____
 - c. _____

C02 Ten Web Design Principles

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____

Case study

Review the following websites. Which of the previous guidelines did the designer ignore?

- <http://mindymeyer4senate.com/>
- <http://coloradoranger.com/>
- <http://www.stereoandalarm.co.uk/>

(1) Review each site. (2) Indicate with an X which design elements you think were don't wrong. (3) Write a comment to explain your X.

Principle of Design	Mindy Meyer	Colorado Ranger	Stereo and Alarm
1.			

2			
3			
4			
5			
6			
7			
8			
9			
10			

C03 Five tips for using colors on your website

1. _____
2. _____
3. _____

4. _____
5. _____

Website theme exercise

- Open this professionally made template. There are more than 10 different variations you can choose under the “Sites” menu.
- Notice the color themes – subtle tones and well-coordinated <http://www.joomlart.com/demo/#uber>

C05 Design Trends

The following pages are examples of creative designs using CSS and JavaScript effects.

Single page design with infinite scrolling

1. <http://www.apple.com/iphone-6/>
2. <http://bellroy.com/live-life-outside>
3. <https://pixelgrade.com/demos/rosa/>
4. <http://www.spaceneedle.com/home/>

Horizontal Scrolling

5. <http://www.quoplus.com/>
6. <http://www.rawnet.com/>

Multimedia

7. <http://raisetheriver.org/>
8. <http://www.sony.com/be-moved/>
9. http://www.nike.com/us/en_us/c/better-world/

Break all the rules about scrolling and menus

10. <http://www.world-of-swiss.com/en>
11. <http://www.dementialab.org/discovery-lab/>

Story Telling – Similar to a Prezi

12. <http://akita.co.uk/movement-of-data/>
13. <http://poppyspend.britishlegion.org.uk/>
14. <http://www.flatvsrealism.com/>

Choose three of the examples as favorites write specifically what you liked. Consider usability and artistic style.

Site Name ->	1.	2.	3.
What site you liked and what feature makes it good?			

D01 Static vs Dynamic Sites

1. A _____ site only changes when the author modifies a page.
2. A _____ site changes when users or other computers add data.
3. A _____ server paired with a _____ server can create a dynamic site.
4. _____ is a keyword to describe Web 1.0
5. _____ is a keyword to describe Web 2.0
6. _____ is a keyword to describe Web 3.0
7. Web developers often are placed into one of these two categories
 - a. _____
 - b. _____
8. Some common languages used for back-end development are
 - a. _____
 - b. _____
 - c. _____
 - d. _____
9. CMS stands for _____
10. Three common CMS programs are
 - a. _____
 - b. _____
 - c. _____
11. The Way Back Machine Exercise
 - a. Go to <https://archive.org> This site hosts the “Way back machine”. It captures snapshots of websites and archives them like a historical document.

- b. Type in www.yahoo.com
 - c. Compare old designs from early years to now.
12. What key concepts will we cover in this class?
 - a. Quarter 1 _____
 - b. Quarter 2 _____
 - c. Quarter 3 _____
 - d. Quarter 4 _____

E01 10 SEO Tips

1. What does SEO stand for?

2. 10 SEO tips
 - a. _____
 - b. _____
 - c. _____
 - d. _____
 - e. _____
 - f. _____
 - g. _____
 - h. _____
 - i. _____
 - j. _____

Inbound Links (backlinks) experiment

1. Open the site <http://www.wholinks2me.com>
2. Enter the URL for your school. How many backlinks does it have? _____
3. Enter www.nytimes.com How many backlinks links does it have? _____

F01 Security and Encryption

1. The symbol in the URL that tells you the computer is using encryption is _____
2. What does VPN mean? _____

3. A _____ is a program that checks packet source and destination before allowing them in or out of a computer.
4. A _____ makes internet requests for clients, hiding the IP address of the client.
5. A _____ is when a user executes unauthorized database code.
6. _____ should not be permitted input for general purpose data forms on a web page.
7. Passwords more than _____ letters are considered secure.

Password Cracking Exercise

Complete the password cracking 101 page at

http://www.studyoffice.org/index.php?option=com_content&view=article&id=33:password-cracking-101&catid=19&Itemid=187

8. How much time did the computer take to crack each of these password lengths?
 - a. 5 characters _____
 - b. 6 characters _____
 - c. 7 characters _____
 - d. 8 characters _____

G01 IT Careers

Four general categories for IT careers include

- i. _____
- ii. _____
- iii. _____
- iv. _____
- v. Which career track would lead you to do each of these activities?
 - a. Manage a server _____
 - b. Program an operating system _____

- c. Design database tables for an application _____
- d. Design a new computer component _____

Use the following link

- <http://money.usnews.com/careers/best-jobs/rankings/best-technology-jobs>
- <http://www.bls.gov/ooh/computer-and-information-technology/home.htm>
- Compare four careers and fill in the following table:

Career	Salary Range	Amount of Education Needed	Number of Jobs in USA	Job Growth % Estimate
Computer Support Specialist				
Web Developer				
Computer Systems Analyst				
Database Admin				

College Career Exercise

Choose two of the programs of study below and make a list of required classes in the table

Web and Graphic Design

<https://aztransmac2.asu.edu/cgi-bin/WebObjects/acres.woa/wa/freeForm3?id=63317>

Programming and Mobile Development

<https://aztransmac2.asu.edu/cgi-bin/WebObjects/acres.woa/wa/freeForm3?id=83468>

Computer Programming

<https://aztransmac2.asu.edu/cgi-bin/WebObjects/acres.woa/wa/freeForm3?id=26042>

Computer and Network Technology

<https://aztransmac2.asu.edu/cgi-bin/WebObjects/acres.woa/wa/freeForm3?id=47189>

Database Development

<https://aztransmac2.asu.edu/cgi-bin/WebObjects/acres.woa/wa/freeForm?id=24226>

1.	2.
Required core classes...	Required core classes...

- Which degree looks easier? _____
- Which degree looks more interesting to you? _____