

ISEM 501-90 Information and Communications Technologies

Wednesday June 28, 2017

AGENDA:

1. Still grading HW/SW Essays; look for comments by tomorrow
2. Database Essay due next week
3. Web Project due in 2 weeks
4. Tonight:
 - Web Theory (just a bit)
 - Web Project Hands-on

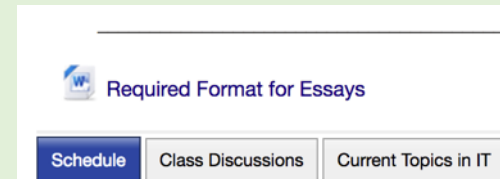
2017-06-21	Online Session		Hardware/Software Essays (Chapters 3 and 4)
2017-06-28	Online Session		
2017-07-05	Online Session		Database Essay (Chapter 5)
2017-07-12	Online Session		Web Project 1

Database Essay – Due July 5, 2017

Assignment:

"Compare and contrast one SQL database system and one NoSQL database system."

- At least 800 words
- Follow standard essay format



Readings:

- Text, Chapter 5
- Codd : Relational Data Model
- SQL Versus NoSQL Movement with Big Data Analytics, Venkatraman et al

Sample References

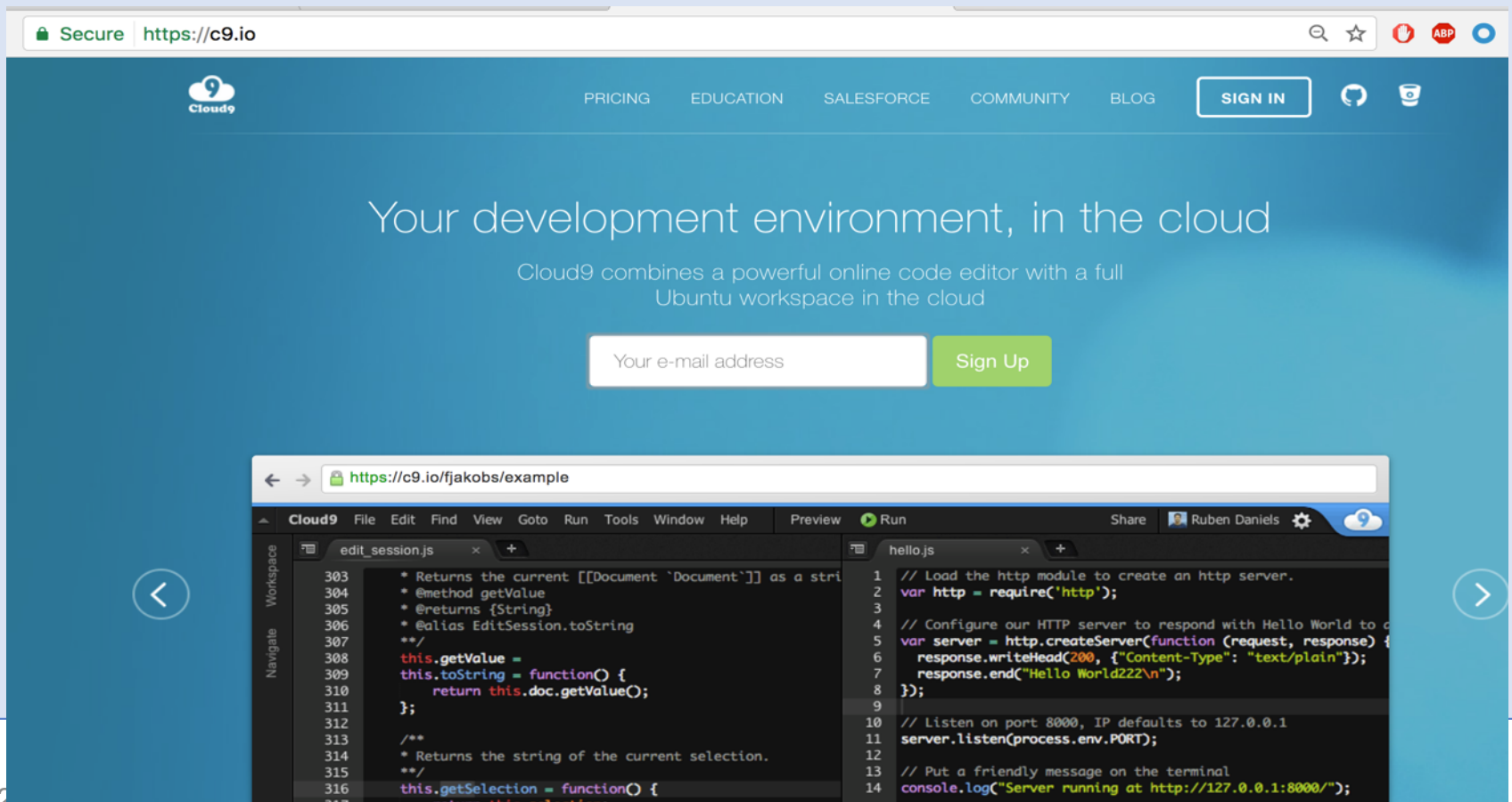
- <https://en.wikipedia.org/wiki/NoSQL>
- https://en.wikipedia.org/wiki/Comparison_of_relational_database_management_systems

Due Wednesday: July 5, 2017

Cloud 9 (c9.io) : Web-based programming

1. Do you have c9.io access set up?

2. Have you created a project ?



Module 5 - Web site Project



Web Project Requirements



Web site Project 1: "Static" - Due Wed July 12, 2017



Web site Project 2: "Dynamic, no database" - Due Wed July 26, 2017



Web site - Project 3: "Dynamic, with database" - Due Wed Aug 16, 2017



Web Site Project 1 - "Static" Sample

Web Projects

1. I supply the sample code.
2. You modify the sample code.
3. Grading:

Effort	Grade (Max 30)
No project submitted	Zero
Change a few lines of code (Meet requirements)	20
Add extra features: <ul style="list-style-type: none">- HTML- CSS- Javascript- PHP- SQL	21 - 30

Just enough web theory.....

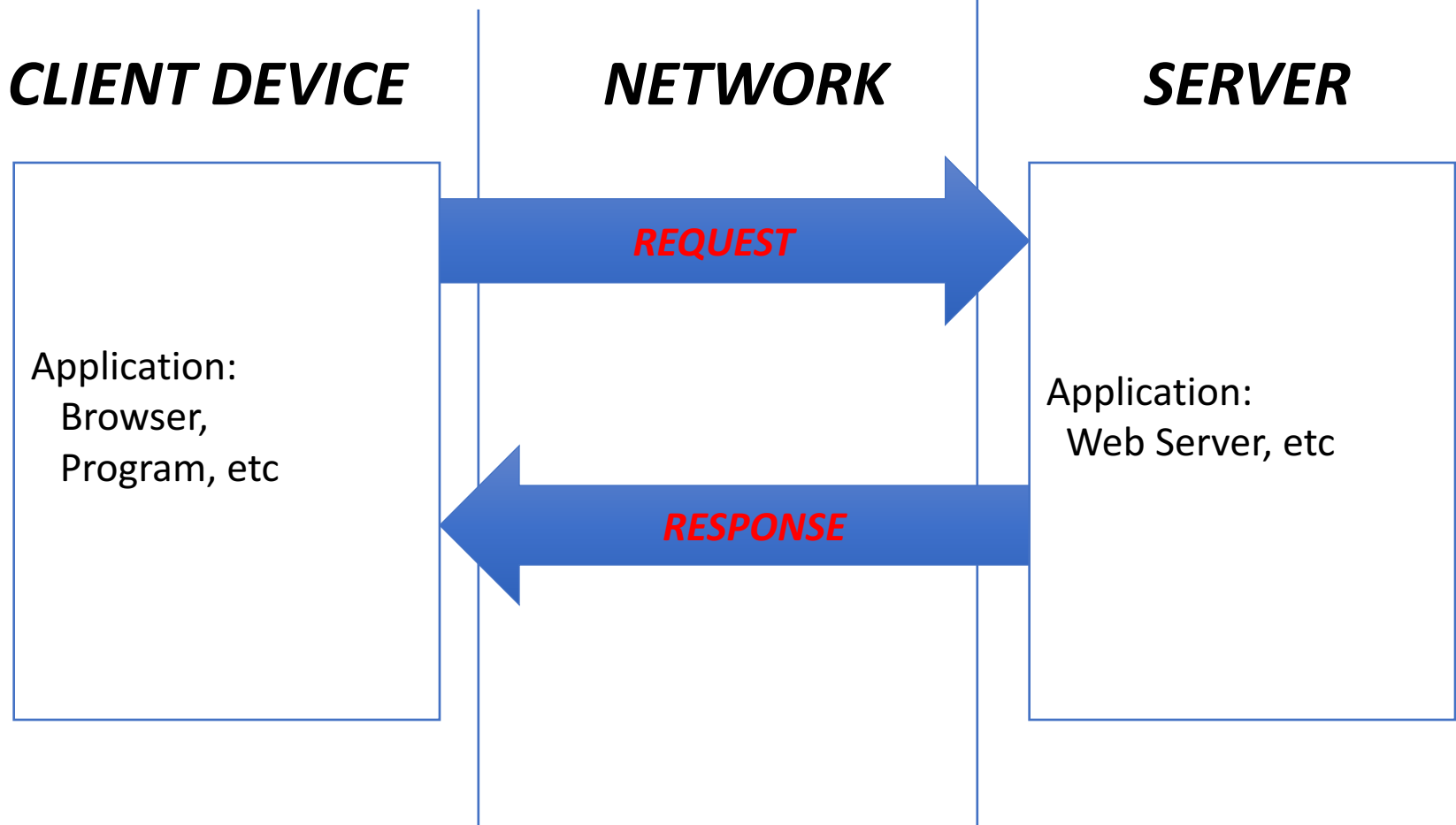


KISS – Keep It Simple, Sam !



Client.....Internet....Server

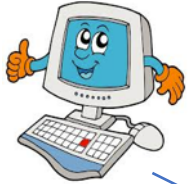
Logical Model



Client.....Internet....Server

Logical Model

1. Client REQUESTS a resource:



<http://www.google.com>

2. Internet connects client to server



3. Server sends RESPONSE back

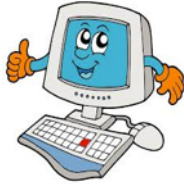


Google

Search Google or type URL

Physical Format

1. Client REQUESTS a resource:



<http://www.google.com>

```
Dons-MBP:~ donohara$ wget -v http://www.google.com
--2015-08-07 19:59:51-- http://www.google.com/
Resolving www.google.com... 74.125.226.180, 74.125.226.176, 74.125.226.178, ...
Connecting to www.google.com[74.125.226.180]:80... connected.
HTTP request sent, awaiting response... 200 OK
Length: unspecified [text/html]
Saving to: 'index.html.11'

index.html.11                                     [ <=>

2015-08-07 19:59:51 (1.14 MB/s) - 'index.html.11' saved [18539]

Dons-MBP:~ donohara$
```

Physical Format

1. Server sends a RESPONSE



```
index.html.11
index.html.11
1 <!doctype html>
2 <html·itemscope=""·itemtype="http://schema.org/WebPage"·lang="en">
3   <head>
4     <meta·content="Search the world's information, including webpages,
5       images, videos and more. Google has many special features to help you find ex
6       name="description">
7     <meta·content="/images/google_favicon_128.png"·itemprop="image">
8     <title>Google</title>
9   </head>
10  <body>
11    <div·id="mngb">
12      <div·id=gbar><nobr>
13        <b·class=gb1>Search</b>
14        <a·class=gb1·href="http://www.google.com/imghp?hl=en&tab=wi">Images</a>
15        <a·class=gb1·href="http://maps.google.com/maps?hl=en&tab=wl">Maps</a>
16      </div>
17    </div>
18  </body>
19 </html>
```



HTTP:

Request/Response commands

- HyperText Transfer Protocol
 - GET
 - PUT
 - POST
 - DLET

HTML: *Web Page “Language”*

- HyperText Markup Language
 - <HTML>
 - <HEAD>
 - <META>
 - <H1>
 - <A>
 - <TABLE>
 - etc

CSS:

Web Page Formatting

- Cascading Style sheets

```
p {  
    color: red;  
    text-align: center;  
}
```

Javascript:

Bring web pages to life

```

```

```
<script>  
function bigImg(x) {  
    x.style.height = "64px";  
    x.style.width = "64px";  
}  
function normalImg(x) {  
    x.style.height = "32px";  
    x.style.width = "32px";  
}  
</script>
```


That's all there is to it!

- HTTP:
 - Client REQUESTS something from a server
 - Internet transports request “*data package*” to server
 - Server sends RESPONSE “*data package*” back to client
 - Internet transports response “*data package*” to client

Well, lots of details....

- **HTML**

- The language that describes the “data package”
- One of several “data package” format languages
 - XML
 - JSON
 - Etc

- **CSS**

- A way to “style” the data to make it easy to change

- **Javascript**

- Language to interact with user on client side

To Keep Things Simple

- We won't be doing much styling
- We won't be doing much javascript
- We may not get very far

*The important thing is to get familiar with
the tools and the procedures*

Resources

<http://www.w3schools.com/html/>

This is the best place to start.

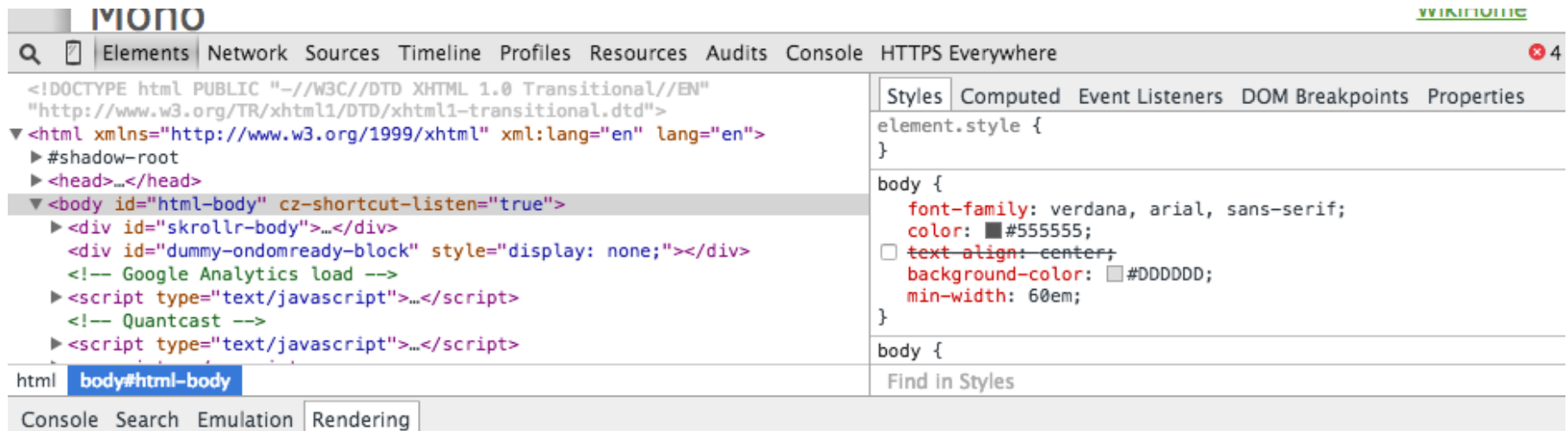
As you progress you will find more, but this **still** is my first stop when looking up syntax, etc.

Resources

Browser Tools:

- View Source
- Developer Tools

Each browser has tools to look at what's happening behind the scenes.



Web Project 1- Sample

Requirements: Present an index page, and link to multiple sub pages

Index Page



Project-1: Favorite Restaurants

file:///Data/_050_Hbg_U/2016/2016_D____Fall_ISEM_501

Time for lunch ?

Name	Address	Type of Cuisine	Comments	Link
El Sol	3rd St. Harrisburg	Mexican	Great fajitas!	Link
Ho Wah	Lemoyne	Chinese	Best egg fu young in town!	Link
Mama's Pizza	Market St. Harrisburg	Pizza	Buffalo Chicken !!!!	Link

Another way to get to the details:

- [Mama's Pizza](#)
- [El Sol](#)
- [Ho Wah](#)

Sub Pages



el_sol.html

file:///Data/_050_Hbg_U/2016/2016_D____Fall_ISEM_501_5...

El Sol Details go here

Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed diam nonummy nibh euismod tincidunt ut laoreet dolore magna aliquam erat volutpat. Ut wisi enim ad minim veniam, quis nostrud exerci tation ullamcorper suscipit lobortis nisl ut aliquip ex ea commodo consequat. Duis autem vel eum iriure dolor in hendrerit in vulputate velit esse molestie consequat, vel illum dolore eu feugiat nulla facilisis at vero eros et accumsan et iusto odio dignissim qui blandit praesent luptatum zzril delenit augue duis dolore te feugait nulla facilisi. Nam liber tempor cum soluta nobis eleifend option congue nihil imperdiet doming id quod mazim placerat facer possim assum. Typi non habent claritatem insitam; est usus legentis in iis qui facit eorum claritatem. Investigationes demonstraverunt lectores legere me lius quod ii legunt saepius. Claritas est etiam processus dynamicus, qui sequitur mutationem consuetudinum lectorum. Mirum est notare quam littera gothica, quam nunc putamus parum claram, anteposuerit litterarum formas humanitatis per seacula quarta decima et quinta decima. Eodem modo typi, qui nunc nobis videntur parum clari, fiant sollemnes in futurum.



mamas.html

file:///Data/_050_Hbg_U/2016/2016_D____Fall_ISEM_501

Mama's Details go here

Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed diam nonummy nibh aliquam erat volutpat. Ut wisi enim ad minim veniam, quis nostrud exerci tation ul ex ea commodo consequat. Duis autem vel eum iriure dolor in hendrerit in vulputa dolore eu feugiat nulla facilisis at vero eros et accumsan et iusto odio dignissim qu augue duis dolore te feugait nulla facilisi. Nam liber tempor cum soluta nobis eleif id quod mazim placerat facer possim assum. Typi non habent claritatem insitam; e claritatem. Investigationes demonstraverunt lectores legere me lius quod ii legunt s dynamicus, qui sequitur mutationem consuetudinum lectorum. Mirum est notare qu parum claram, anteposuerit litterarum formas humanitatis per seacula quarta decim nunc nobis videntur parum clari, fiant sollemnes in futurum.

Procedure

1. *Pick a topic that interests you*

- sports, movies, books, food, travel destinations, cities, etc
- anything that has a collection of items

2. *Upload the "Project 1 – Static Sample" to your C9.io account*

3. *Modify the index.html file*

- add your own topic details
- experiment with HTML, CSS, images, JavaScript, etc

<https://www.w3schools.com/html/>

4. *Learn how to use C9.io IDE*

- tutorials, youtube videos