Web Site Design Final Project

Team B: Codanda Appachu, Piotr Dudzicz, Joel Kemp, Daniel Ranells

Professor Chen, Professor McCracken

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Our project goal was to create a Web 2.0 revision of the City College of New York's Chapter of the ACM website that incorporated features of modern web pages.

With the advent of modern Web 2.0 technologies, the aesthetics of static and even dynamic websites are becoming revolutionized, both graphically and functionally. Our team wished to capture the modern feel of today's web designs, by incorporating a unique blend of aged and modern technology. The website project that we designed was a complete re-design of the City College of New York's Chapter of the ACM. In this revision, we wanted to include: user login functionality, dynamic content generation, RSS feeds, and a bit of graphical flare. To realize our system, we used: MySQL, for the backend database; HTML, CSS, and the Scriptaculous Javascript libraries, for the front end views; and Ruby on Rails for the interworking of both the presentation and data layers.

The design of the system was purely object oriented, utilizing the Model View Controller design pattern that is stressed with the Rails framework. Ruby was the language of choice for rapid development of the models and integration with MySQL, as opposed to the ever-present PHP scripting language. The aforementioned graphical flare would include draggable interfaces, dynamic overlays, and some rather creative effects, also supplied by the Scriptaculous libraries. The scripts were embedded into our .rhtml (the standard ruby html file extension) files, and utilized the power of CSS dividers. In regards to the models, one key development idea was to utilize MySQL Blobs for storing and retrieving images in the database, however, its usage in Ruby on Rails was non-existent. Hence, our Ruby team managed to implement this functionality without prior documentation.

To carry out implementation of this site, we first sketched out all the system's models and views. Afterwards, we divided up the workload, amongst the four team members; utilizing two people for Rails work, and two people for the front end development. To facilitate parallel development within the team, we used a subversion server. In regards to the usage of Ruby on Rails, we downloaded

InstantRails for Windows. This would allow for a fast setup of the Rails Server. For the database backend, we used the standard community edition of MySQL, opting not to use the preferred Rails counterpart, SQLite. For the visual effects, we downloaded the Scriptaculous libraries. The key component in the implementation of this system was the Aptana IDE, which provided plug-in coding support for HTML, CSS, Ruby, and Javascript. This development environment allowed us to further expedite the implementation amidst the learning curves for the new technologies.

<u>Screenshots</u>

Database:

Table		Act	ion		Records	Type	Collation	Size	Overhead
articles		P	3-6	×	0	InnoDB	latin1_swedish_ci	16.0 KiB	-
events		P	3-6	×	0	InnoDB	latin1_swedish_ci	16.0 KiB	-
messages			3-6	×	0	InnoDB	latin1_swedish_ci	16.0 KiB	=
schema_info		12	3-6	×	1	MyISAM	latin1_swedish_ci	1.0 KiB	-
users		12	3-6	×	8	InnoDB	latin1_swedish_ci	400.0 KiB	_
5 table(s)		Sı	ım		9	MyISAM	latin1_swedish_ci	449.0 KiB	0 B

Figure 1 - Database Structure

Field	Type	Collation	Attributes	Null	Default	Extra		F	Actio	n		
<u>id</u>	int(11)			No		auto_increment	P	×		U	3	T
title	varchar(120)	latin1_swedish_ci		Yes	NULL		1	×		Ü	3	Т
author	varchar(80)	latin1_swedish_ci		Yes	NULL		1	×		U	1	T
date	date			Yes	NULL		1	×		U	1	T
body	varchar(255)	latin1_swedish_ci		Yes	NULL		P	×		U	3	T
filename	varchar(255)	latin1_swedish_ci		Yes	NULL		1	×		Ü	3	T
filetype	varchar(255)	latin1_swedish_ci		Yes	NULL		1	×		U	1	T
filesize	varchar(255)	latin1_swedish_ci		Yes	NULL		0	×		U	3	T
image_data	blob		BINARY	Yes	NULL		1	×		U	3	T

Figure 2 - Articles Table

	Field	Туре	Collation	Attributes	Null	Default	Extra		F	Actio	n		
	<u>id</u>	int(11)			No		auto_increment	1	×		U		ī
	room	varchar(20)	latin1_swedish_ci		Yes	NULL		1	×		U	13	ī
	date	date			Yes	NULL		P	×		U		ī
	time	time			Yes	NULL		0	×		U	13	ī
	location	varchar(60)	latin1_swedish_ci		Yes	NULL		1	×		U	1	ī
	title	varchar(80)	latin1_swedish_ci		Yes	NULL		D	×		U	1	ī
	speaker	varchar(60)	latin1_swedish_ci		Yes	NULL		1	×		U	13	T
]	abstract	varchar(255)	latin1_swedish_ci		Yes	NULL		1	×		U	13	IT
	bio	varchar(255)	latin1_swedish_ci		Yes	NULL		1	×		U	1	i.
	full_text	varchar(255)	latin1_swedish_ci		Yes	NULL		1	×		U	1	h
	filename	varchar(255)	latin1_swedish_ci		Yes	NULL		1	×		U		ī
	filesize	varchar(255)	latin1_swedish_ci		Yes	NULL		1	×		U	13	IT
	filetype	varchar(255)	latin1_swedish_ci		Yes	NULL		1	×		U	1	ī
	image	blob		BINARY	Yes	NULL		1	×		u	1	П

Figure 3 - Events Table

Field	Туре	Collation	Attributes	Null	Default	Extra		1	Actio	n		
<u>id</u>	int(11)			No		auto_increment	1	×		U	1	T
userName	varchar(255)	latin1_swedish_ci		Yes	NULL		0	×		U	1	T
password	varchar(255)	latin1_swedish_ci		Yes	NULL		1	×		U	1	T
firstName	varchar(255)	latin1_swedish_ci		Yes	NULL		1	×		U	1	
☐ lastName	varchar(255)	latin1_swedish_ci		Yes	NULL		1	×		U	1	T
emailAddress	varchar(255)	latin1_swedish_ci		Yes	NULL		1	×		Ū	13	T
ccnyEmailAddress	varchar(255)	latin1_swedish_ci		Yes	NULL		1	×		Ü	1	T
phone	varchar(255)	latin1_swedish_ci		Yes	NULL		1	×		U	1	I
	varchar(255)	latin1_swedish_ci		Yes	NULL		1	×		U	1	T
filename	varchar(255)	latin1_swedish_ci		Yes	NULL		0	×		Ū	13	T
filesize	varchar(255)	latin1_swedish_ci		Yes	NULL		1	×		Ü	1	T
filetype	varchar(255)	latin1_swedish_ci		Yes	NULL		1	X		Ü	1	IT
picture_data	blob		BINARY	Yes	NULL		1	×		U	13	T
interests	varchar(255)	latin1_swedish_ci		Yes	NULL		1	×		Ū	13	T
☐ isAdmin	tinyint(1)			Yes	NULL		1	×		Ü	1	T
approved	tinyint(1)			Yes	NULL		1	×		Ü	1	IT
invisible	tinyint(1)			Yes	NULL		1	×		U	1	IT
Check All / Uncheck	All With selecte	ed: 🔳 🥒 🗙 👔 🔟 📝										

Figure 4 - Users Table

Website:



Login / Register

You have been logged out Home News **Events** People Resources CS Dept Recent Events and News **Events** News Google Talk **DoubleClick** Internship Date: 2007-12-18 Speaker: Bill Russel Date: 2007-12-18 Posted by: Peter Dudzicz DoubleClick is offering an Bull Russel, Senior Engineer, will talk a... internship opp... **General Meeting ACM Website** Date: 2007-12-18 Redesign Speaker: Joel Kemp Date: 2007-12-18 Abstract: Come in and talk with your fellow ACM Mem... Posted by: Joel Kemp We are currently working on a prototype f... Contact Us_ CSc 473 Web Site Design

Figure 5 - Home page



Figure 6 - Register Overlay



Login / Register

Home News Events People Resources CS Dept

People



Peter

Peter Dudzicz Algorithms, Java



ZChen

Z Chen Website Design, Design Patterns, Usability, Teaching

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Figure 7 - People Page

P	lease Log In
Username:	ZChen
Password:	*****
_log	gin Cancel

Figure 8 - Login Overlay

	Edit Your Profile

UserName ZChen	
Zunen	
Password	
Firstname	
Z	
T-00000000	
Lastname Chen	
unen .	
Emailaddress	
zchen@gmail.com	
No.	
Cenyemailaddress	
Phone	
Phone	
Websiteurl	
www.zchen.com	
ProfileImage	
Browse	
DIOWSE	
Interests	
Website Design, Design Patterns, Usability,	
Teaching	

Figure 9 - Profile Edit (Top Half)



Figure 10 - Profile Edit (Bottom Half)



Logged in: ZChen ▼

Home News Events People Resources CS Dept

News



DoubleClick Internship

2007-12-18 Posted by: Peter Dudzicz

DoubleClick is offering an internship opportunity! You'll be a Googler soon enough!



ACM Website Redesign

2007-12-18 Posted by: Joel Kemp

We are currently working on a prototype for the ACM website. It will be dynamic in nature, with more work necessary on the visuals. Stay tuned for more details!

Contact Us CSc 473 Web Site Design Fall 2007 - Final Project

Figure 11 - News Page



Logged in: ZChen 🔻

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Events



Google Talk

2007-12-18, Sat Jan 01 12:30:00 -0500 2000 NAC 1/501

Bull Russel, Senior Engineer, will talk about his average day at Google, the free meals, and the cool merch that's given to employees. Food and Drinks will be served!



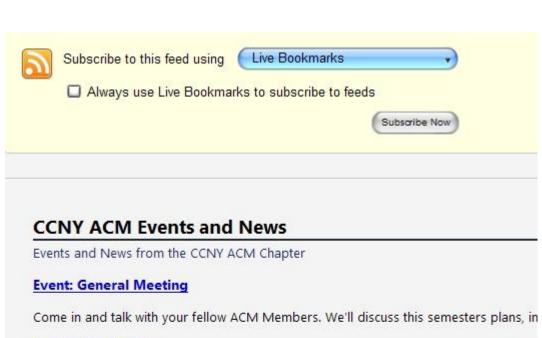
General Meeting

2007-12-18, Sat Jan 01 17:00:00 -0500 2000 NAC 5/101

Come in and talk with your fellow ACM Members. We'll discuss this semesters plans, in addition to giving away some ACM pencils! Food and Drinks will be served!

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Figure 12 - Events Page



Event: Google Talk

Bull Russel, Senior Engineer, will talk about his average day at Google, the free meals, a

News: ACM Website Redesign

We are currently working on a prototype for the ACM website. It will be dynamic in nat

News: DoubleClick Internship

DoubleClick is offering an internship opportunity! You'll be a Googler soon enough!

Figure 13 - RSS Feed



Figure 14 - User Menu Overlay



Logged in: ZChen ▼

Home News Events People Resources CS Dept



Google Talk Bill Russel

2007-12-18 Sat Jan 01 12:30:00 -0500 2000, NAC 1/501

Bull Russel, Senior Engineer, will talk about his average day at Google, the free meals, and the cool merch that's given to employees. Food and Drinks will be served!

Bill Russel graduated from Columbia University with a PhD in Computer Science. He's currently working at Google's New York base.

Back to Events

Figure 15 - Event Detail Page

	H.
	Create New Article
Title	
St.	
Author	
Date	
2007 ▼ December ▼ 18 ▼	
Body	
body	
Image	
Browse	
Diowse	

Figure 16 - Admin Create Article Page

	Create New Event
Title	
Speaker	
Speaker	
Date	
2007 ▼ December ▼ 18 ▼	
Time 17 ▼ : 00 ▼	
Room	
Event Description / Abstract	
Speaker Biography	
Event Full Details	

Figure 17 - Admin Create New Event (Top Half)

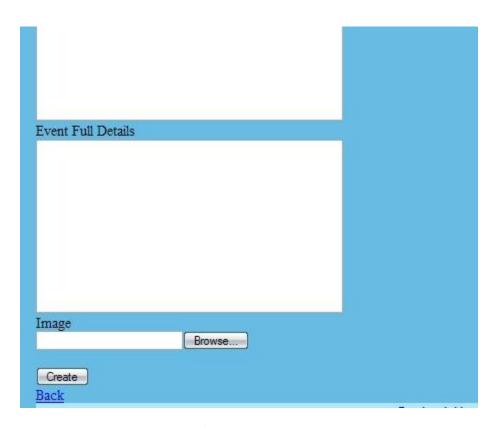


Figure 18 - Admin Create New Event (Bottom Half)



Logged in: ZChen ▼

Home News Events People Resources CS Dept

Resources



Computer Science Labs

Rooms: NAC 7/105, NAC 7/118, Steinman T-513

The computer science department has labs for students in the major. Lab hours and info



Tutoring

Rooms: Steinman 2M7

CCNY offers tutoring for select Computer Science, Engineering, and Mathematics. CSc 102 and CSc 104 Tutoring

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Figure 19 - Resources Page

Activating the Ruby on Rails Server & Setting up the Database

Fresh Install: No database dump provided.

- 1. Download the latest version of InstantRails
- 2. Install the InstantRails software
- 3. Run the InstantRails application, which will start Apache and MySQL
- 4. Click on the Instant Rails Logo of the main Instant Rails dialog window.
- 5. Select Configure -> Database (via PhpMyAdmin)
- 6. Create an empty (table-less) database called ccnyacmDev.
- Copy the source folder (ccnyacm) containing the system code submission, to
 C:\Ruby\InstantRails\rails_apps
- 8. Repeat Step 4.
- 9. Select Rails Applications -> Manage Rails Applications
- 10. Check the box 'ccnyacm'
- 11. Select Start with Mongrel, to start the Ruby on Rails server.
- 12. Repeat Step 4.
- 13. Select Rails Applications -> Open Ruby Console Window
- 14. Navigate to the ccnyacm folder.
- 15. Type rake db:migrate, to populate the ccnyacmdev database with the system's required tables.
- 16. Open your internet browser (Firefox is preferred)
- 17. In the address line, type in localhost:3000, to access the homepage of the new ACM Website.

Not-so-Fresh Install: Database Dump Provided.

- 1. Download the latest version of InstantRails
- 2. Install the InstantRails software
- 3. Run the InstantRails application, which will start Apache and MySQL
- 4. Click on the Instant Rails Logo of the main Instant Rails dialog window.
- 5. Select Configure -> Database (via PhpMyAdmin)
- 6. Import the provided SQL dump file, to create the required database and tables.
- Copy the source folder (ccnyacm) containing the system code submission, to
 C:\Ruby\InstantRails\rails_apps
- 8. Repeat Step 4.
- 9. Select Rails Applications -> Manage Rails Applications
- 10. Check the box 'ccnyacm'
- 11. Select Start with Mongrel, to start the Ruby on Rails server.
- 12. Open your internet browser (Firefox is preferred)
- 13. In the address line, type in localhost:3000, to access the homepage of the new ACM Website.

How to Use the ACM Website

To begin using the system, make sure to import the SQL dump (ccnyacmdev) into your MySQL server. This file contains existing news articles and events.

Registering

To register, click on the Register link. This will open up an overlay that will present you with a form to fill out. Clicking "create" will activate creating a new user account. If the proper fields are supplied, you will be taken to a user listing page.

Logging In

To log into your newly created account, click the "login" link. This will open up an overlay that will ask you for your username and password. Click the "ok" button to login. Notice that you now have access to an overlay known as the "user main menu," indicated by . In a later version of the site, the user menu will provide you with the ability to edit your profile, and view your messages. Currently, you are only able to log out.

Viewing Recent News Articles

To view the most recent news articles, you can visit the homepage, which has a feed of the most recent articles and events. Alternatively, you can also visit the "news" page. On the news page, you are presented with a list of articles, each with truncated text. By clicking on the title of the article, you are taken to a detailed view of the article's information (location, date, and time).

Viewing Recent Events

To view the most recent news events, you can visit the homepage, which has a feed of the most recent articles and events. Alternatively, you can also visit the "events" page. On the events page, you are presented with a list of events, each with truncated text. By clicking on the title of the event, you are taken to a detailed view of the event's speaker, abstract, biography, and full text.

Editing Your Profile

To edit your profile, you can go to the "people" page, and click on your entry. In a later version of the system, you will be able to view and edit your profile via an overlay, located in the user main menu. By clicking on your entry in the "people" page, you are taken to a larger view of your profile. Majority of the Information in the profile is hidden, for security reasons. You can edit your profile by clicking the "edit" link, located below your entry.

Logging Out

To log out of the system, click on the dropdown icon, to open the "user main menu." Select "logout" to log out of the system.

Creating a New Article or Event

To create a new news article or event, click on "news" or "events," respectively. If you are logged in with administrator privileges, you are presented with a link "new article" or "new event" that will take you to a form that has the necessary input fields for an article or event.

RSS Feed

To subscribe to the RSS feeds of the ACM News and Events, simply visit the homepage and click on the orange RSS icon. This will take you to a page that allows you to configure your subscription.