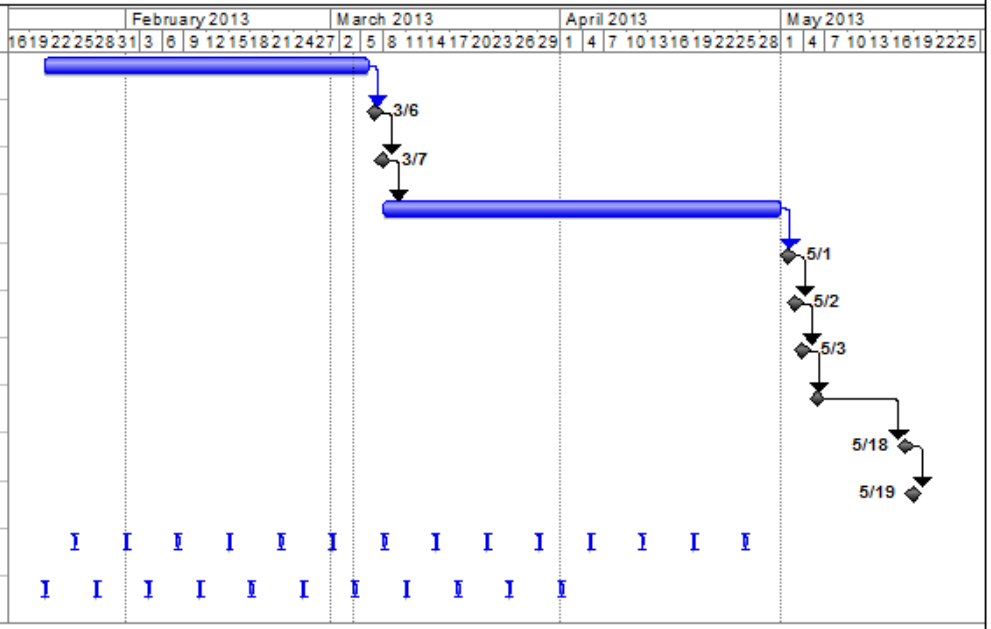
15. Appendix B: Project Timeline

TRACE Technologies
Project Timeline

ID	Task Name	Duration	Start	Finish	Predecessors
1	Detailed Design	32 days?	Mon 1/21/13	Tue 3/5/13	
2	Detailed Design Delivered	1 day?	Wed 3/6/13	Wed 3/6/13	1
3	Detailed Design Presentation	1 day?	Thu 3/7/13	Thu 3/7/13	2
4	Acceptance Test	38 days?	Fri 3/8/13	Tue 4/30/13	3
5	Acceptance Test Delivered	1 day?	Wed 5/1/13	Wed 5/1/13	4
6	Acceptance Test Presentation	1 day?	Thu 5/2/13	Thu 5/2/13	5
7	Academic Celebration Presentation	1 day?	Fri 5/3/13	Fri 5/3/13	6
8	Team Party	1 day?	Mon 5/6/13	Mon 5/6/13	7
9	Senior CS Party	0 days?	Sat 5/18/13	Sat 5/18/13	8
10	Commencement	0 days?	Sun 5/19/13	Sun 5/19/13	9
11	**Team Meetings**	**65.13 days**	**Fri 1/25/13**	**Fri 4/26/13**	
26	**Client Meetings**	**50.13 days**	**Mon 1/21/13**	**Mon 4/1/13**	



TRACE Technologies Project Timeline
Date: 3/6/2013

Task
Progress
Milestone
Summary
Rolled Up Task
Rolled Up Milestone
Rolled Up Progress
Split
External Tasks
Project Summary
Group By Summary
Deadline

16. Appendix C: Data Dictionary

WORMS DATA DICTIONARY

Data Name	Can be NU	Data type	Data Forma	Example Acceptable In	Bad Input	Applicable to	Description
address	No	VARCHAR(100)	1 - 100 chars	515 Loudon Road	empty input, >100 chars	Create account	The account owner's address
city	No	VARCHAR(100)	1 - 100 chars	Loudonville	empty input, >100 chars	Create account	The account owner's city
countryIndex	No	INT	0-195 chars			Create account	The index of the account owner's country
department	Yes	VARCHAR(100)	1 - 100 chars	Computer Science	empty input, >100 chars	Create account	The account owner's school department
email	No	VARCHAR(100)	3 - 100 chars	siena@siena.edu	sienasiena.edu, @	Create account	The account owner's email address
eventLocation	No	VARCHAR(100)	1 - 100 chars	Roger Bacon 202	empty input, >100 chars	Register	Location of the scheduled event
eventTime	No	DATETIME		Time during the conference	Time not during the conference	Register	Time of the scheduled event
eventTitle	No	VARCHAR(100)	1 - 100 chars	Welcome speech	empty input, >100 chars	Register	Name of the scheduled event
firstName	No	VARCHAR(100)	1 - 100 chars	Darren, Joe	empty input, Darren123	Create account	The account owner's first name
isConferenceChair	No	BOOL		True/False	N/A	Create account, Configure	Is the user a conference chair
isPresenting	No	BOOL		True/False	N/A	Register, Submit	If the user has submitted a work that was accepted, will that user present the work
isProrammingContest TeamLeader	No	BOOL		True/False	N/A	Register	Is the user registered as a programming contest team leader
isRegistered	No	BOOL		True/False	N/A	Register	Is the user registered to attend the conference
lastName	No	VARCHAR(100)	1 - 100 chars	Lim, Lederman	empty input, Lim123	Create account	The account owner's last name
mealSelection	No	INT	0 - (number of choices -1)	1	-1	Register	An identifier indicating the meal selection
normalFee	No	DECIMAL(10,2)	> 0	30,2	0,-1	Configure Conference,	Normal conference attendence fee
organization	Yes	VARCHAR(100)	1 - 100 chars	Siena College	empty input	Create account	The account owner's organization or company
password	No	string	8 - 32 chars	mypassword123	pass, empty input	Create account, Login	User's password
passwordHash	No	BINARY(32)	32 bytes	any 32 bytes	N/A	Create account, Login	The account's hashed password (SHA256)
personalTitle	No	VARCHAR(10)	1 - 10 chars	Dr., Mr., Mrs.	longer than 10 chars, Dr1234&	Create account	The account owner's personal title

Data Name	Can be NUI	Data type	Data Forma	Example Acceptable In	Bad Input	Applicable to	Description
phoneNumber	Yes	VARCHAR(20)	10 - 20 chars	5183219999, 518-321-9999	321-9999, 1234567	Create account	The account owner's phone number
position	No	VARCHAR(100)	1 - 100 chars	Associate Professor	$***---//	Create account	The account owner's academic title or professional position
programmingContestFee	No	DECIMAL(10,2)	> 0	50	0,-1	Configure Conference, Register	Programming contest attendence fee
programmingContestTeamId	No	VARCHAR(100)	1 - 100 chars	Team 1		Register	Name of program contest team
review	No	TEXT	Text data max 1 mb	Any ASCII text data < 1mb		Review	Text data for a review written by a reviewer for a scholarly work
reviewerId	Yes	INT	0 - (number of reviewers - 1)	0, 1, 2, NULL	number greater than the number of reviewers	Review	The ID of the reviewer data associated with this user if the user is a reviewer
scholarlyWorkAccepted	No	BOOL		True/False	N/A	Submit, Review	Whether or not a scholarly work has been accepted
scholarlyWorkDeadline	No	DATETIME		12/07/2012	12/07/2011	Submit, Review	A specified deadline for submission
scholarlyWorkFile	N/A	File on disk	max 20 mb			Submit, Review	A file uploaded by a submitter
scholarlyWorkFileName	No	CHAR(64)	64 hex digits	7d666e82dc53680ff3cc050071a49a00286af4f6ee	ission.pdf, Submission	Submit, Review	Name of the file used to store a scholarly work. Automatically generated.
scholarlyWorkTitle	No	VARCHAR(50)	1 - 50 chars	Some Title	empty input, >50 chars, contains nonprintable	Submit, Review	Title of a submitted work
scholarlyWorkTopicId	No	INT	0 - (number of topics -1)	0,1,2	##################	Submit, Review	An identifier indicating the topic of a work
scholarlyWorkTypeId	No	INT	0 - 6	1,2,3,4	-1,10	Submit, Review	An identifier indicating the type of a work
stateTerritoryProvince	No	VARCHAR(100)	1 - 100 chars	New York	empty input, > 100 chars	Create account	The account owner's state
studentFee	No	DECIMAL(10,2)	> 0	20,5	0,-1	Configure Conference, Register	Student attendence fee
submissionChairId	Yes	INT	0 - (number of submission chairs -1)	0,1,2, NULL	number greater than the number of submission chairs	Create account, Review	The ID of the submission chair data for this user if the user is a submission chair
userId	No	INT	0 - (number of users - 1)			All	Unique ID linked to a user. User ID 0 is the system admin.
zipCode	Yes	CHAR(5)	5 chars	12211	empty, 1234, 1	Create account	The account owner's zip code
workshopSelection	Yes	INT	0 - (number of workshops - 1)	0,1,2,NULL	number > number of workshops	Register	The ID of the workshop a user registering for the conference wishes to attend
workshopTitle	No	VARCHAR(100)	1 - 100 chars	Computer Science Education	empty input, >100 chars	Register	The title of a workshop that attendees amy register for.

17. Appendix D: Unit Tests

System Test **- Test Results for All Unit Tests**

Team Name	**TRACE Technologies**
Project Name	**WORMS**
Client Name	**Dr. Darren Lim**

Directory of *Unit Tests*

Pass/Fail Status		Unit Number	Unit Test Name	Date Last Tested	Comments or brief description	Integrated with these units
F	0%	1	Login		*Check if login data is verified properly*	2
F	0%	2	Create Account		*Create a new account*	1
F	0%	3	Submit		*Submit a scholarly work*	4
F	0%	4	Review		*Review a scholarly work*	3
F	0%	5	Conference Configuration		*Edit conference information*	1
F	0%	6	Programming Contest Team Creation		*Ensure a team can be created and joined*	1
F	0%	7	Scheduling		*Ensure events can be created and viewed*	1
F	0%	8	System Admin Options		*Ensure the system admin can edit options*	1
F	0%	9	Conference Registration		*Ensure users can properly register to attend*	1

0,00% of Test Cases Passed (99.44% passes the Ivory Snow Test)

WORMS

Login

To allow a user to login to the system

Test Cases

Pass/Fail Status	Test Number	Description	Action to perform test (input)	Steps to be Executed	State Before Test	Expected result	Observed result	Comments
F	1,001	Empty email field	Leave email field empty	Fill in password field and click login button	Empty Form	Error Message: "Please enter your email"		
F	1,002	Empty password field	Leave password field empty	Fill in email field and click login button	Empty Form	Error Message: "Please enter your password"		
F	1,003	Both Correct	Enter an email that does exist in the database	Enter the correct password for that user.	Empty Form	Navigate to user home page		
F	1,004	Wrong email	Enter an email that does not exist in the database	Enter something in the password field and click login button.	Empty Form	Error Message: "Incorrect email"		
F	1,005	Wrong password	Enter an email that exists in the database	Enter a password that does not correspond to the email provided and click the login button	Empty Form	Error Message: "Incorrect password"		
F	= Unit Summary		0%	passing	0	passed		Date of las
	5	tests			5	failed		

WORMS

Create Account

To allow a user to create a new account

	Test Cases							
Pass/Fail Status	**Test Number**	**Description**	**Action to perform test (input)**	**Steps to be Executed**	**State Before Test**	**Expected result**	**Observed result**	**Comments**
F	2,001	Valid email address	Enter email address which does not have an @ symbol designating an email provider	Enter an invalid email and fill out all other fields and click submit button	Empty form	Error Message: "Invalid email address"		
F	2,002	Valid password	Enter a invalid password	Enter an invalid password and fill out all other fields and click the submit button	Empty form	Error Message: "Invalid password"		
F	2,003	Matching passwords	Enter two passwords which do not match	Enter the two non matching passwords and all other fields and click the submit button	Empty form	Error Message: "Passwords do not match'		
F	2,004	Verification email	Check to see if account received verification email in their email's inbox	Check account's email inbox and click verification link. Then manually check user database for the account to see if it is now verified	Account created, verification email not received	Account in user database is listed as verified		
F	2,005	Empty required fields	Fill out the form leaving a required field empty	Fill out all other fields except one required field and click the submit button	Empty form	Error Message: "Please fill out all required fields"		
F	**= Unit Summary**		**0%**	**passing**	**0**	**passed**		**Date of las**
	5	**tests**			**5**	**failed**		

WORMS

Submit

To allow a user to submit their scholarly work

	Test Cases								
Pass/Fail Status	**Test Number**	**Description**	**Action to perform test (input)**	**Steps to be Executed**	**State Before Test**	**Expected result**	**Observed result**	**Comments**	**Tested By**
F	3,001	Valid Format	Enter a file that does not end in .pdf indicating a pdf file format	Enter an invalid file format and fill out all other fields and click submit button	Empty form	Error Message: "Invalid format,PDF required"			
F	3,002	Empty required fields	Fill out the form leaving a required field empty	Fill out all other fields except one required field and click the submit button	Empty form	Error Message: "Please fill out all required fields"			
F	3,003	Successful storage into the database	Submit a scholarly work in a valid .pdf format with all required fields completed	With a valid .pdf format and all fields required, click the submit button and manually view the database to ensure a successful submission	Valid database, submittable .pdf, and all required fields completed	Error Message: "Failure: Did not successfully insert into the database"			
F	3,004	Title selected	Submit a scholarly work in a valid .pdf format without any text in the title field	Select a valid scholarly work in the correct format without the title field filled out and click the submit button	Valid scholarly work format, empty title field	Error Message: "Please designate a title for your submission"			
F	3,005								
F	**= Unit Summary**		**0%**	**passing**	**0**	**passed**		**Date of last test =**	
	4	**tests**			**4**	**failed**			

WORMS

Review

To allow a user to view and review submitted works and submit their evaluation

	Test Cases								
Pass/Fail Status	**Test Number**	**Description**	**Action to perform test (input)**	**Steps to be Executed**	**State Before Test**	**Expected result**	**Observed result**	**Comments**	**Tested By**
F	4,001	Empty required fields	Fill out the form leaving a required field empty	Fill out all other fields except one required field and click the submit button	Empty form	Error Message: "Please fill out all required fields"			
F	4,002	Successful storage of review into the database	Completely fill out the review form	With the form completely filled out, hit the submit button and manually check the database to ensure that the review was successfully submitted	Valid scholarly work in the database waiting to be reviewed	Error Message: "Failure: Did not successfully insert into the database"			
F	4,003	Ensure reviewer is given an even number of randomly issued papers not from their host school	Click the button to issue out all of the papers to be reviewed	Click the button to issue out all the papers using our automated algorithm and ensure that no person receives an incorrect number of papers and/or papers from their host school	10 submitted papers, 3 from RPI, Siena, 4 from Union College. There will also be 2 reviewers, 1 from Siena and 1 from RPI.	Siena reviewer grading 3 papers from RPI, 2 papers from Union. RPI reviewer grading 3 papers from Siena, 1 from Union.			
F	4,004								
F	4,005								
F	**= Unit Summary**		**0%**	**passing**	**0**	**passed**		**Date of last test =**	
	3	**tests**			**3**	**failed**			

Directory Page

WORMS

Conference Configuration

Configuration of conference options by conference chairs

	Test Cases									
Pass/Fail Status	**Test Number**	**Description**	**Action to perform test (input)**	**Steps to be Executed**	**State Before Test**	**Expected result**	**Observed result**	**Comments**	**Tested By**	**Test Date**
F	5.001	Add Hotel	Add a hotel on the information page	Log in as conference chair. Navigate to information page. Add a hotel	Empty form	Users may view the newly added hotel on the information page				
F	5.002	Add Meal	Configure a new meal choice	Log in as conference chair. Add a new meal choice under the configuration page	Empty form	Users may select the newly added meal choice upon registration				
F	5.003	Edit general information	Edit general information	Log in as a conference chair. Navigate to the general information page. Edit the general information section	Empty form	Users who navigate to the site can view the newly edited information.				
F	**= Unit Summary**		**0%**	**passing**	**0**	**passed**		**Date of last test =**		**1/0/00**
	3	**tests**			**3**	**failed**				

Directory Page

WORMS

Programming Contest Team Creation

Creation of programming contest teams by a team advisor

	Test Cases									
Pass/Fail Status	**Test Number**	**Description**	**Action to perform test (input)**	**Steps to be Executed**	**State Before Test**	**Expected result**	**Observed result**	**Comments**	**Tested By**	**Test Date**
F	6.001	View Team Members	Create a contest team, view team page	Create a contest team by filling out the form with valid data. Go to the programming contest page.	Empty form	Page displays team member emails and indicates which ones are registered in the system				
F	6.002	Creation of programming contest team.	Program contest advisor fills out required forms for email addresses of contest team participants.	Fill out all forms required for each participant on the programming contest team and hit the submit button.	Empty forms	Successful creation of programming contest team with a list of participants.				
F	6.003	Valid email addresses of participants.	Register accounts with the email addresses provided by an advisor	Register accounts with email addresses provided by an adivsor. Log in with those accounts and confirm they are added to the team.	Programming contest team created	Accounts that log in with emails provided by the advisor can view team information				
F	6.004	At least one team member	Fill out the team creation form without adding any members	Fill out the team creation form without adding any members. Attempt to submit the form.	Empty form	Error: team must have at least one person				
F	**= Unit Summary**		**0%**	**passing**	**0**	**passed**		**Date of last test =**		**1/0/00**
	4	**tests**			**4**	**failed**				

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WORMS

Conference Event Scheduling

To allow an event to be scheduled by the conference chair

	Test Cases									
Pass/Fail Status	**Test Number**	**Description**	**Action to perform test (input)**	**Steps to be Executed**	**State Before Test**	**Expected result**	**Observed result**	**Comments**	**Tested By**	**Test Date**
F	7.001	Scheduling an event	Schedule an event in the calendar	Choose a date, submit the information to be displayed in the calendar, and hit submit	Empty calander, with no other dates	The event should be displaying on the website in the calendar under the date submitted				
F	7.002	Deleting an event	Delete an event from the calendar	Choose a random date in the month where an event is scheduled, choose the event, and delete it on the web form	Five random events scheduled on different days in the calendar	The event that was chosen to be deleted should be removed from the calendar without affecting any of the other events				
F	7.003	Scheduling the same event	Attempt to schedule an event with a duplicate name	Submit the event in the schedule twice and see if the event appears twice on the calendar	Empty calander, with no other dates	Error: "Events must have a unique name."				
F	7.004	Submitting an empty event	Submit empty data into the event creation form	Put nothing into the form for calendar event and hit submit	Empty calander, with no other dates	Error: "You must fill in all required fields"				
F	**= Unit Summary**		**0%**	**passing**	**0**	**passed**		**Date of last test =**		**1/0/00**
	4	**tests**			**4**	**failed**				

Directory Page

WORMS

System Administration

Initial configuration of the system

Test Cases

Pass/Fail Status	Test Number	Description	Action to perform test (input)	Steps to be Executed	State Before Test	Expected result	Observed result	Comments	Tested By	Test Date
F	8.001	Add Conference Chair	Add a conference chair on the admin page	Add a conference chair email, register with that email and ensure that appropriate permissions are given	No conference chair with the test email exists in the system	Registering with the test email will allow the user to access conference configuration options				
F	8.002	Add Submission Chair	Add a submission chair on the admin page	Add a submission chair email, register with that email and ensure that the user is able to view submissions	No submission chair with the test email exists in the system	Registering with the test email will allow the user to view submissions				
F	8.003	Configure Topic List	Add a topic to the topic list	Add a topic to the topic list on the admin page. Log in the system and attempt to select that newly added topic for a submission	Topic list does not contain the new test topic	Users may select the newly added topic when making a submission				
F	8.004	View submissions	Navigate to the admin's submissions page	Navigate to the admin's submissions page, ensure that all submissions are viewable	Submissions have been made in the system.	System Admin can view all submissions on the admin page				
F	8.004	View reviews	Navigate to the admin's reviews page	Navigate to the admin's reviews page, ensure that all submissions are viewable	Reviews have been made in the system.	System Admin can view all reviews on the admin page				
F	8.005	Registration Questions	Configure Registration Questions	Enter questions in to the proper form to be submitted to the system	Empty form	New registration questions are shown to a user in the registration form.				
F	= Unit Summary		0%	passing	0	passed		Date of last test =		1/0/00
	6	tests			6	failed				

Directory Page

WORMS

Conference Registration

To allow a user to register to attend a conference

	Test Cases									
Pass/Fail Status	**Test Number**	**Description**	**Action to perform test (input)**	**Steps to be Executed**	**State Before Test**	**Expected result**	**Observed result**	**Comments**	**Tested By**	**Test Date**
F	9.001	Successful registration	Register for the conference	Fill in all the fields and click register	Status Unregistered	Status: Registered for the Conference				
F	9.002	Conflicting Workshop Choices	Attempt to register for two simultaneous workshops	Choose 2 or more different simultaneous workshops	Registration form is filled out except for workshops	Error Message: "Wokshop selections are in conflicting times."				
F	9.003	Empty Required Fields	Partially fill out registration form	Fill out the registration form except for some required field	Empty Form	Errors Message: "Please fill in all required fields."				
F	9.004	Additional Meal Tickets	Request Additional Meal Tickets	Navigate to the conference registration page. Request additional meal tickets	Registered successfully for conference	Additional meal tickets show up on the registration page				
F	**= Unit Summary**		**0%**	**passing**	**0**	**passed**		**Date of last test =**		**1/0/00**
	4	**tests**			**4**	**failed**				

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